

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit

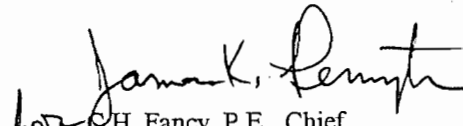
Mr. David Spraley
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

DEP File No. 1070005-006-AC
PSD-FL-264

Enclosed is the FINAL Permit Number PSD-FL-264 for the construction of a new elemental chlorine-free bleach plant and associated equipment at the Palatka Mill, Putnam County. This permit is issued pursuant to Chapter 403, Florida Statutes and in accordance with Rule 62-212.400., F.A.C. - Prevention of Significant Deterioration(PSD).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


C.H. Fancy, P.E., Chief
Bureau of Air Regulation


CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6-30-99 to the person(s) listed:

Mr. David Spraley, Georgia-Pacific *
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS
Mr. Chris Kirts, DEP

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

6-30-99
(Date)

FINAL DETERMINATION

Georgia-Pacific Corporation

Permit No. 1070005-006-AC, PSD-FL-264

Palatka Mill

An Intent to Issue an air construction permit to Georgia-Pacific Corporation to construct a new elemental chlorine-free bleach plant at Palatka Mill in Putnam County, was distributed on May 12, 1999. The Notice of Intent was published in the Palatka Daily News on May 14, 1999. Copies of the draft construction permit were available for public inspection at the Department offices in Jacksonville and Tallahassee.

The National Park Service, the U.S. Environmental Protection Agency or the public submitted no comments.

As a prerequisite to issuance of the final air construction permit, the Department had required that Georgia-Pacific must demonstrate that the Palatka Mill is in compliance with all ambient air quality standards (AAQS) and Prevention of Significant Deterioration (PSD) Class I and Class II allowable increments. Based on the air modeling analyses, it was found that the existing Palatka Mill configuration resulted in the occurrence of an area of SO₂ AAQS exceedance in the vicinity of the Mill's southeastern property line. Subsequent analyses of the source contributions to this area have indicated that it was mostly due to a down-washing effect on Power Boiler No. 4. Currently, Power Boiler No. 4 has a stack height of 122 feet (ft), which is in the area of influence of the 193.7-ft Recovery Boiler No. 4 building.

For the Palatka Mill to demonstrate compliance with the AAQS, it was determined that Power Boiler No. 4 would need a stack height increase to 200 ft. A 200-ft stack height is below the height that would be considered as Good Engineering Practice (GEP) for Power Boiler No. 4. The Department will add specific condition No. 19 in Section III of the permit requiring Georgia-Pacific to raise the stack height of Power Boiler No. 4 to 200 ft.

The final action of the Department is to issue the permit with the change noted above.

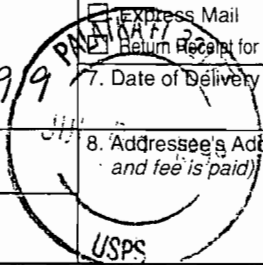
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1070005-006-AC	
PSD-FI-264	

PS Form 3800, April 1995

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	3. Article Addressed to: Mr. David Spraley GA-Pacific Corp PO Box 919 Palatka, FL 32178-0919
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Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

PERMITTEE:

Georgia-Pacific Corporation
North of CR 216; West of US 17
Palatka, Florida 32177

Authorized Representative:

Mr. David Spraley, V.P., Operations

FID No.	1070005
PSD No.	PSD-FL-264
SIC No.	2611
Project:	No. 3 Bleach Plant
Expires:	April 15, 2001

PROJECT AND LOCATION:

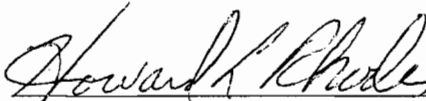
Permit for the construction of the elemental chlorine-free (ECF) No. 3 Bleach Plant at the Georgia-Pacific facility in Palatka. The new bleach plant will replace two existing bleach plants (Nos. 1 and 2 Bleach Plants). The project is being implemented to meet the MACT regulations for the Pulp and Paper industry. The project is located at CR 216 and US 17, Palatka, Putnam County. UTM coordinates are Zone 17; 434.0 km E; 3283.4 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix BD BACT Determination
Appendix GC Construction Permit General Conditions


Howard L. Rhodes, Director
Division of Air Resources
Management

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

Georgia-Pacific Corporation operates a Kraft pulp mill in Palatka, Putnam County, Florida. The facility produces both unbleached and bleached paper products. The company has applied for the construction of the No. 3 Bleach Plant to replace the existing Nos. 1 and 2 Bleach Plants. The No. 3 Bleach Plant will be an elemental chlorine-free (ECF) bleach plant. The two existing bleach plants currently use chlorine, sodium hypochlorite and chlorine dioxide for bleaching. The new plant will substitute chlorine dioxide for chlorine in the bleaching process. The sodium hypochlorite stage in the existing bleach plants will also be eliminated in the new plant.

The new bleach plant is being proposed in order to comply with the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper industry (40 CFR 63, Subpart S) and the Best Achievable Technology (BAT) Effluent Guidelines. The final compliance date for the applicable part of these regulations is April 15, 2001. This permit will allow Georgia-Pacific to move forward to comply with the MACT regulations and the Effluent Guidelines to meet the compliance deadline.

As a result of the new bleach plant, increases in carbon monoxide (CO) and total reduced sulfur (TRS) emissions will occur. Emissions of volatile organic compounds (VOC) are expected to decrease. HAP emissions will be controlled to meet the requirements of 40 CFR 63 Subpart S.

REGULATORY CLASSIFICATION

The Georgia-Pacific facility is classified as a "Major or Title V Source" per Rule 62-210.200, F.A.C., because it has the potential to emit more than 100 tons per year of at least one regulated air pollutant.

This industry is included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one regulated pollutant, the facility is a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than the listed significance levels require review per the PSD rules and a determination of Best Available Control Technology (BACT) per Rule 62-212, F.A.C.

For the proposed changes, greater than significant increases will occur for CO. As such this pollutant is subject to review under the PSD permitting program.

PERMIT SCHEDULE:

02-09-99: Date of Receipt of Application
03-09-99: DEP Completeness Request
03-10-99: G-P's 1st response to DEP's Completeness Request of 03-09-99
04-26-99: G-P's 2nd response to DEP's Completeness Request of 03-09-99.
04-26-99: Application complete

RELEVANT DOCUMENTS:

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Date of Receipt of Application: 02-09-99
- DEP Completeness Request: 03-09-99
- G-P's 1st response to DEP's Completeness Request: 03-10-99
- G-P's 2nd response to DEP's Completeness Request: 04-26-99
- Application complete: 04-26-99
- Technical Evaluation and Preliminary Determination 05-12-99
- Best Available Control Technology determination (issued concurrently with permit)

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department's Northeast District Office, 7825 Baymeadows Way, Jacksonville, Florida 32256-7590. All applications for permits to construct or modify an emissions unit(s) *subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blair Stone Road (MS 5505), Tallahassee, Florida 32399-2400 (phone number 850/488-0114).
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [**Rule 62-4.160, F.A.C.**]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [**Rule 62-210.900, F.A.C.**]
5. Expiration: This air construction permit **shall expire on April 15, 2001** [**Rule 62-210.300(1), F.A.C.**]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the Department's Northeast District Office of any delays in completion of the project which would affect the startup day by more than 90 days. [**Rule 62-4.090, F.A.C.**]
6. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Northeast District Office [**Chapter 62-213; F.A.C.**]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

The Specific Conditions listed in this section apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
036	No. 3 Bleach Plant

1. Unless otherwise indicated, the construction and operation of the above emission units shall be in accordance with the capacities and specifications stated in the application or in updated submittals. [Rule 62-210.300, F.A.C.]
2. The subject emissions unit shall comply with all applicable provisions of the 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart S. [Rule 62-204.800 F.A.C.]
3. The production rate of the No. 3 Bleach Plant shall not exceed 1,350 tons per day (TPD) of air-dried bleached pulp (ADBP) as a maximum monthly average, nor 1,702 TPD ADBP as a daily maximum. [Rule 62-210.200, F.A.C.]
4. The subject emission unit is allowed to operate continuously (8760 hours/year). [Rule 62-210.200, F.A.C.]
5. Carbon monoxide emissions from the No. 3 Bleach Plant shall be minimized to the extent practicable by efficient bleaching operations. Carbon monoxide emissions from the No. 3 Bleach Plant wet scrubber stack shall not exceed 46 pounds per hour and 201 tons per year. Initial and annual compliance tests will be conducted to demonstrate compliance with this emission limit. [Rule 62-212.410, F.A.C.]
6. Visible emissions from the No. 3 Bleach Plant wet scrubber stack shall not exceed 20% opacity. This visible emissions limit shall only be effective if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation. [Rules 62-296.320 and 62-296.404(2)(b), F.A.C.]
7. The control device used to reduce emissions of total chlorinated hazardous air pollutants (HAPs) from the No. 3 Bleach Plant shall:
 - (a) Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight;
 - (b) Achieve a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP; or
 - (c) Achieve a treatment device outlet mass emission rate of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of oven-dried pulp (ODP) [40 CFR 63.445(c)(1)]
8. Before this construction permit expires, the subject emissions unit shall be tested for compliance with the above control efficiency requirement for total chlorinated HAPs. For the

duration of all tests the emission units shall be operating at permitted capacity. Permitted capacity is defined as at least 90 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than permitted capacity (i.e., 90% of the maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310, F.A.C.]

9. The Department's Northeast District office in Jacksonville shall be notified in writing at least 15 days prior to a compliance test. Written reports of the test results shall be submitted within 45 days of test completion. [Rule 62-297.310, F.A.C.]
10. The compliance test procedures shall be in accordance with EPA Reference Methods 1, 2, 3, 4, 9, 10 and 26A, as appropriate, as published in 40 CFR 60, Appendix A. 60, Appendix A. [Rules 62-204.800 and 62-297.310(7)(c), F.A.C.]
11. All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. [Rule 62-4.070(3), F.A.C.]
12. The permittee shall install, calibrate, maintain, and operate continuous monitoring devices which can be used to determine the pH or oxidation-reduction potential of the gas scrubber effluent, the gas scrubber vent gas inlet flow rate (or an option proposed by the permittee and approved by the Department prior to startup), and the gas scrubber liquid influent flow rate. The parametric monitoring values will be established during the initial compliance testing. [40 CFR 63.453(c) and (d); 63.453(n)]
13. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C.]
14. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
15. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Northeast District office by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C.]
16. The subject emissions unit shall be subject to the following:
 - Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C.]

- Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. **[Rule 62-210.700, F.A.C.]**
- Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. **[Rule 62-210.700, F.A.C.]**
- In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
- Prior to April 15, 2001, the permittee shall submit a startup, shutdown and malfunction plan for the No. 3 Bleach Plant as required under 40 CFR 63.6(e)(3).

[40 CFR 63.6(e)(3) and Rule 62-210.700, F.A.C.]

17. In order to document continuing compliance with Specific Condition Nos. 3, 5, 7 and 12, daily records shall be maintained. The records at a minimum shall contain the following:
[Rule 62-4.070(3), F.A.C.]

- Quantity of pulp processed through the No. 3 Bleach Plant, in air-dried bleached tons.
- Scrubber parameters monitored per Specific Condition 12.
- Within 6 months of startup of the No. 3 Bleach Plant, the permittee shall submit an Operation and Maintenance (O&M) Plan which sets forth the practices which are employed to result in efficient bleaching operations.

18. In order to reduce chloroform air emissions from the No. 3 Bleach Plant, the permittee shall meet the applicable effluent limitation guidelines and standards specified in 40 CFR Part 430, and use no chlorine or hypochlorite for bleaching in the No. 3 Bleach Plant.

[40 CFR 63.445(d)]

19. The permittee shall increase the stack height of Power Boiler No. 4 from 122 feet to 200 feet.

[Rule 62-212.300(1)]

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Georgia-Pacific Corporation
No. 3 Bleach Plant
PSD-FL-264 / 1070005-006-AC
Palatka, Putnam County

Georgia-Pacific Corporation (G-P) has applied to install a new elemental chlorine-free (ECF) bleach plant (No. 3 Bleach Plant) to replace two existing bleach plants at its Palatka facility in Putnam County. The proposed modification will allow G-P to comply with the recently promulgated Maximum Achievable Control Technology (MACT) standards for the pulp and paper industry (commonly referred to as MACT I or the Cluster Rule) and the Best Available Technology (BAT) for Effluent Guidelines. The proposed bleach plant consists of bleaching towers, washers, tanks, and associated equipment. The proposed No. 3 Bleach Plant will be capable of bleaching up to 1,702 tons per day (TPD) of air-dried bleached pulp (ADBP) as a daily maximum and 1,350 TPD ADBP as a maximum monthly average.

The proposed project will result in an increase in carbon monoxide (CO) emissions and potential increases in total reduced sulfur (TRS) emissions, but a decrease in emissions of volatile organic compounds (VOCs) and emissions of hazardous air pollutants (HAPs). Emissions increases of TRS are below the significant emission level for TRS per Table 62-212.400-2, F.A.C. Therefore, PSD review is not required for this class of pollutants. However, PSD review is required for CO since the increase in emissions, per the application, is more than the PSD significance level.

The project is subject to Prevention of Significant Deterioration (PSD) review for CO in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). A Best Available Control Technology (BACT) determination is part of the review required by Rules 62-212.400 and 62-296, F.A.C. Air pollution control equipment will consist of efficient operation to minimize CO emissions from the No. 3 Bleach Plant.

PROCESS EMISSIONS

The applicant proposes the following emissions:

POLLUTANT	EXISTING EMISSIONS (Nos. 1 and 2 Bleach Plants)	PROPOSED EMISSIONS (No.3 Bleach Plant)	NET CHANGE IN EMISSIONS
CO	48.0 TPY	201.0 TPY	153.0 TPY
VOC	144.7 TPY	80.7 TPY	-64.0 TPY
TRS	1.2	9.0 TPY	7.8 TPY
HAPs	143.8	75.5 TPY	-68.3 TPY

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

DATE OF RECEIPT OF COMPLETE BACT APPLICATION:

April 26, 1999

BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212.400, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically infeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT EMISSION LIMITS PROPOSED BY APPLICANT:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
CO	Efficient bleaching operations	No actual test data; only other BACT determination for bleach plants	Efficient bleaching operations

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

BACT ANALYSIS

CARBON MONOXIDE (CO)

CO is a byproduct that is formed from the bleaching of Kraft pulp. CO is formed in the chlorine, caustic extraction, and chlorine dioxide bleaching sequences of the bleaching process. Until recently, it was not known how much CO formation could be expected from bleaching using up to 100% ClO₂ substitution (NCASI TB 760, 1998). Based on studies performed by NCASI, it has been postulated that CO formation from ClO₂ substitution occurs as a result of the synergistic reaction between ClO₂ and the lignin in the pulp. The results of the studies do not show a correlation between CO formation and percent ClO₂ substitution. However, when using 100% ClO₂ substitution, CO emissions appear to increase linearly with the total percent ClO₂ applied on the pulp. Therefore, it would appear that when bleaching using an ECF bleaching process (*i.e.*, 100% ClO₂ substitution), reducing the amount of ClO₂ applied to the pulp could reduce CO formation. This would suggest that CO emissions from the ECF bleaching process could be "controlled" by maintaining the percentage of ClO₂ applied to the pulp at minimum levels that would ensure proper bleaching of the pulp. Thus, ensuring efficient use of ClO₂ and efficient operation of the bleaching process will minimize CO emissions.

EPA's BACT Clearinghouse database shows only one BACT determination for CO emissions from a bleach plant. The determination was made by the Mississippi Department of Environmental Quality in September 1996 for Weyerhaeuser's Kraft bleach plant in Columbus (Permit No. 1680-00044, September 10, 1996). The final BACT determination was to control CO emissions by ensuring efficient operations of the bleach plant.

At the Department's request, G-P addressed additional control techniques for the reduction of bleach plant CO emissions. Specifically, G-P performed a feasibility and cost analysis for catalytic oxidation and thermal oxidation of CO.

Regenerative Catalytic Oxidation

Catalytic oxidation involves the use of a catalyst that reacts with pollutants in the gas stream and reduces them to compounds such as carbon dioxide and water. In order to render catalytic oxidation more effective, thermal oxidation using direct flame burners is often implemented in conjunction with catalytic methods. This also allows oxidation to occur at lower temperatures than thermal oxidation methods alone. This combination of control techniques is called a regenerative catalytic oxidizer (RCO). A cost analysis for an RCO that could be installed on the proposed No. 3 Bleach Plant wet scrubber was performed. The total estimated capital investment cost for a CO destruction efficiency of 95% is approximately \$1.6 million. The total annual cost is \$808,000/yr. Based on reduction of 191 TPY (201 TPY x 0.95 = 191 TPY) of CO, the total cost effectiveness is \$4,200 per ton of CO removed. It is noted that this cost may be low due to the fact that this technology has not previously been applied to a bleach plant at any other paper mill in the

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

United States. Therefore, actual costs associated with installation and operation may be higher than estimated. The total cost effectiveness, exceeding \$4,200 per ton of CO removed, is considered as economically infeasible for control of CO in this case.

In addition, since this technology has not been applied to bleach plants at other facilities, the feasibility for application of this technology is uncertain. Compounds that may be in the gas stream include TRS compounds that are not only corrosive, but can cause deposits to form on the equipment, in turn clogging and fouling the catalyst.

Thermal Oxidation

A thermal oxidizer is a technically feasible, although unproven, option for reducing CO emissions from bleach plant wet scrubber vent streams. The EPA background information document (BID) for the proposed Pulp and Paper Cluster Rule (EPA-453/R-93-050a; 1993) establishes that thermal oxidation is technically feasible and so an economic analysis was performed. The total annualized cost for the thermal oxidizer is estimated at \$1,500,000/yr. For a CO destruction of 191 TPY, the cost effectiveness is \$7,850 per ton of CO removed. Therefore, the thermal oxidizer option is considered to be economically infeasible. The EPA, in determining MACT standards for bleach plants, dismissed thermal oxidation on the basis of economic impacts as well.

Conclusion

Given the fact that RCO and thermal oxidation are not proven technically on bleach plants and the relatively high cost per ton of CO removed, the use of add-on control equipment to control CO emissions from the proposed bleach plant is considered economically infeasible. The Department considers the best method to control CO emissions are through the use of best operational practices. This was the control method recommended for the only other bleach plant PSD/BACT evaluation listed in the EPA's BACT/LAER Clearinghouse database.

BACT DETERMINATION BY THE DEPARTMENT:

CARBON MONOXIDE (CO)

Based on the information provided by the applicant and other information available to the Department, BACT is "efficient bleaching operations" as a work practice to minimize CO emissions from the proposed No. 3 Bleach Plant. The following emission limits are established for the No. 3 Bleach Plant:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
CO	46 lb/hr and 201 TPY	Per application	Efficient bleaching operations

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

COMPLIANCE

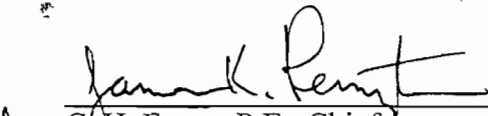
Compliance with the work practice standard shall be demonstrated by submission and Department approval of an Operation and Maintenance (O&M) Plan for the No. 3 Bleach Plant. The O&M Plan shall set forth the practices G-P will employ to result in efficient bleaching operations. An initial and annual stack test of the No. 3 Bleach Plant wet scrubber stack for CO emissions shall be conducted in accordance with the EPA Reference Method 10 as contained in 40 CFR 60, Appendix A.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

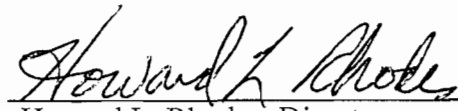
Syed Arif, P.E., Permit Engineer
Department of Environmental Protection
Bureau of Air Regulation - MS 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:


Approved By:




C.H. Fancy, P.E., Chief
Bureau of Air Regulation



Howard L. Rhodes, Director
Division of Air Resources Management

June 29, 1999
Date: 

June 29, 1999
Date: 

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (*X*)
 - (b) Determination of Prevention of Significant Deterioration (*X*); and
 - (c) Compliance with New Source Performance Standards (*X*).
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Florida Department of
Environmental Protection

Memorandum

BAR

TO: Howard L. Rhodes
THRU: Jim Pennington *JKP*
FROM: Syed Arif *Syed Arif*
DATE: June 29, 1999
SUBJECT: Georgia-Pacific Corporation New Bleach Plant
File No. 1070005-006-AC; PSD-FL-264

Attached for approval and signature is a construction permit number 1070005-006-AC, PSD-FL-264 for Georgia-Pacific Corporation Palatka Mill's new elemental chlorine-free bleach plant in Palatka, Florida. The new plant will replace two existing bleach plants at the Mill. The project was implemented to meet the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper industry (40 CFR 63, Subpart S). A Technical Evaluation and Preliminary Determination was issued, and the facility was required to do a public notice.

The new unit is a source of carbon monoxides emissions which will be minimized through efficient bleaching operations.

The project modification provides reasonable assurance that all the requirements of the permit and BACT determination will be complied with. I recommend your approval and signature.

Z 333 618 189

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to <i>David Spraley</i>	
Street Number <i>GA-Pacific</i>	
Post Office, State, & ZIP Code <i>Palatka FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>6-30-99</i>
<i>1070005-006-AC</i>	
<i>PSD-FI-264</i>	

PS Form 3800 April 1995

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- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
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- Attach this form to the front of the mailpiece, or on the back if space does not permit.
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I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

*Mr. David Spraley
GA-Pacific Corp
PO Box 919
Palatka, FL*

32178-0919

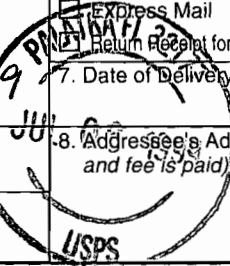
4a. Article Number

Z 333 618 189

4b. Service Type

- Registered
- Certified
- Express Mail
- Insured
- Return Receipt for Merchandise
- COD

7. Date of Delivery



5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

x Michael Thibault

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

STATE OF FLORIDA §
§
County of Putnam §

The undersigned personally appeared before me, a Notary Public for the State of Florida, and deposes that the Daily News is a daily newspaper of general circulation, printed in the English language and published in the City of Palatka in said County and State; and that the attached order, notice, publication and/or advertisement

Legal Number: 40,668

PUBLIC NOTICE PUBLIC NOTICE OF INTENT

was published in said newspaper 1 time with said publication being made on the following dates:

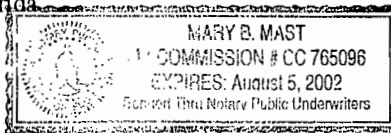
05/14/99

The Daily News has been continuously published as a daily newspaper and has been entered as second class matter at the post office at the City of Palatka, Putnam County, Florida, each for a period of more than one year next preceding the date of the first publication of the above described order, notice, and/or advertisement

Mary Collins

Sworn to and subscribed before me this May 14, 1999 by Tracy Collins Classified Phone Sales Coordinator of the Daily News a Florida corporation, on behalf of the corporation

Mary B. Mast
Mary B. Mast, Notary Public,
State of Florida



Notary Seal
Seal of Office

- Personally known to me,
- Produced identification
- Did take an oath

5/12/99

PUBLIC NOTICE
PUBLIC NOTICE OF INTENT
TO ISSUE PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1070005-006-AC (PSD-FL-264)
Putnam County, Florida

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration of Air Quality (PSD permit) to Georgia-Pacific Corporation. The permit is to construct a new elemental chlorine-free bleach plant and associated equipment. It will replace two bleach plants at the existing Palatka Mill in Putnam County, Florida. The project is being implemented to meet the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper

industry (40 CFR 63, Subpart S). The modification will allow the facility to move forward to comply with the MACT regulations and to meet the compliance deadline. A Best Available Control Technology (BACT) determination was required for carbon monoxide (CO) pursuant to Rule 62-212.400, F.A.C.

The applicant's name and address are Georgia-Pacific Corporation, Post Office Box 919, Palatka, Florida 32178-0919. The Palatka Mill is located at North of CR 216 and West of US 17, Palatka, Putnam County, Florida.

Carbon monoxide emissions from the new bleach plant will be controlled through good combustion practices.

The net emissions increase due to the new bleach plant for PSD applicability purpose is summarized below (in tons per year).

Pollutant	Net Emissions Increase
CO	153
PSD Significant Emission Rate	100

An air quality impact analysis was conducted for carbon monoxide. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this "Public Notice of Intent to Issue PSD permit." Written comments and requests for a public meeting should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name, and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any which shall be the address for service purposes during the course of the proceeding; and explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material facts. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301 of the Florida Administrative Code.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the petition taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of
Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive,
Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Department of
Environmental Protection
Northeast District Office
7825 Baymeadows Way,
Suite 200B
Jacksonville, Florida 32256-
7590
Telephone: 904/448/4300
Fax: 904/448-4366

The complete project file includes the Draft Permit, the application and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, Florida Statutes. Interested persons may contact the New Resources Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.
Legal No. 40668 5/14/99

Z 333 618 146

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David Spraley	
Street & Number	
GA - Pacific	
Post Office, State, & ZIP Code	
Palatka FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
5# 12-99 1070005-006-AR P30-FI-264	

PS Form 3800, April 1995

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GA - Pacific Corp
PO BOX 919
Palatka, FL
32178-0919

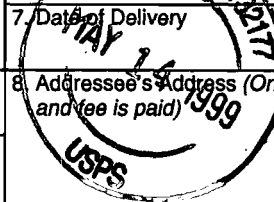
4a. Article Number
Z 333 618 146

4b. Service Type

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Express Mail Insured

Return Receipt for Merchandise COD



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X Member United

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Street & Number <i>GA - Pacific</i>	
Post Office, State, & ZIP Code <i>Palatka, FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>3-9-99</i>
<i>1070005-006-AC 050-FL264</i>	

PS Form 3800, April 1995

SEN

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- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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- Write "Return Receipt Requested" on the mailpiece below the article number.
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I also wish to receive the following services (for an extra fee):

- Addressee's Address
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Consult postmaster for fee.

Is your RETURN ADDRESS completed on the reverse side?

3. Article Addressed to:
*Mr. David Spraley, UP
 GA - Pacific Corp
 PO Box 919
 Palatka, FL 32178-0919*

4a. Article Number
2 333 618 082

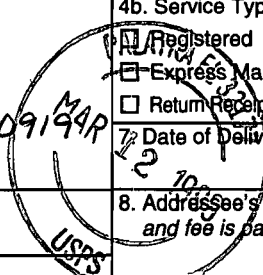
4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

Date of Delivery

5. Received By: (Print Name)
Robert S. Smith

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
X [Signature]



Thank you for using Return Receipt Service.

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



June 17, 1999

9737574
RECEIVED

JUN 21 1999

BUREAU OF
AIR REGULATION

Mr. Al Linero
Bureau of Air Quality Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: AIR MODELING ANALYSIS FOR GEORGIA-PACIFIC PALATKA MILL

Dear Mr. Linero:

Please find enclosed three copies of the air modeling analysis report performed for the Georgia-Pacific Palatka Mill. As understood from previous meetings and discussions with the Department, the air modeling analysis is to demonstrate compliance with ambient air quality standards (AAQS) and allowable Prevention of Significant Deterioration (PSD) Class I and Class II increments.

Based on preliminary air modeling analyses, it was found that the existing Palatka Mill configuration resulted in the occurrence of an area of SO₂ AAQS exceedance in the vicinity of the Mill's southeastern property line. Subsequent analyses of the source contributions to this area have indicated that it was mostly due to a down-washing effect on Power Boiler No. 4. Currently, Power Boiler No. 4 has a stack height of 122 feet (ft), which is in the area of influence of the 193.7-ft Recovery Boiler No. 4 building.

With the current 122-ft stack for Power Boiler No. 4, the ISCST3 model predicted a high, second-high 24-hour SO₂ concentration with 5 years of meteorological data of 381 µg/m³. This concentration does not include a non-modeled ambient background concentration. Power Boiler No. 4 contributed 208 µg/m³ of this concentration.

For the Palatka Mill to demonstrate compliance with the AAQS, it was determined that Power Boiler No. 4 would need a stack height increase to 200 ft. A 200-ft stack height is below the height that would be considered as Good Engineering Practice (GEP) for Power Boiler No. 4. Modeling output files from the Building Profile Input Program (BPIP) building preprocessor program indicate that the GEP stack height for Power Boiler No. 4 is 399.5 ft. Subsequent air modeling analyses with a 200-ft stack for Power Boiler No. 4, resulted in a predicted high, second-high 24-hour SO₂ concentration of 231 µg/m³ with Power Boiler No. 4 contributing 27 µg/m³ to this concentration. This concentration would demonstrate compliance with the 24-hour SO₂ AAQS of 260 µg/m³.

Attached with the air modeling report is a diskette containing all air modeling ISCST3 and BPIP files used for the compliance demonstration. The analysis includes Power Boiler No. 4 stack at 200 ft. Additionally, modeling files are also included for Power Boiler No. 4's current stack height.

Disk output and summary files are compressed using the utility PKZIP. A readme.txt file is included on the disk describing the contents of each ZIP file. Should you have any questions about the modeling analysis, please call Steve Marks or me at (352) 336-5600. Thank you.

Sincerely,

Golder Associates Inc.



David A. Buff, P.E.,
Principle Engineer

DB/SRM/arz

cc: Syed Arif, FDEP
Myra J. Carpenter, G-P
Joe Taylor, G-P
Steve Marks, Golder

P:\9737574\A07\#07LTR.DOC

RECEIVED

JUN 21 1999

BUREAU OF
AIR REGULATION

**AMBIENT IMPACT ANALYSIS
FOR
GEORGIA-PACIFIC CORPORATION

PALATKA MILL**

Prepared For:

**GEORGIA-PACIFIC CORPORATION
PALATKA, FLORIDA**

Prepared By:

**Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500**

**June 1999
9737574Y/F3**

Distribution:

4 copies - FDEP

2 copies - Georgia-Pacific

1 copy - Golder Associates

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION	1-1
2.0 PROJECT DESCRIPTION	2-1
2.1 SITE DESCRIPTION	2-1
2.2 G-P PALATKA EMISSIONS	2-1
2.3 SITE LAYOUT AND STRUCTURES	2-1
2.4 STACK PARAMETERS	2-1
3.0 AMBIENT MONITORING ANALYSIS	3-1
3.1 PM ₁₀ AMBIENT BACKGROUND CONCENTRATIONS	3-1
3.2 SO ₂ AMBIENT BACKGROUND CONCENTRATIONS	3-2
3.3 CO AMBIENT BACKGROUND CONCENTRATIONS	3-2
3.4 NO _x AMBIENT BACKGROUND CONCENTRATIONS	3-3
4.0 AIR QUALITY IMPACT ANALYSIS METHODOLOGY	4-1
4.1 AIR MODELING ANALYSIS APPROACH	4-1
4.2 AAQS AND PSD CLASS II INCREMENT ANALYSES	4-2
4.3 PSD CLASS I INCREMENT ANALYSES	4-3
4.4 MODEL SELECTION	4-3
4.5 METEOROLOGICAL DATA	4-4
4.6 EMISSION INVENTORY	4-5
4.6.1 G-P PALATKA MILL	4-5
4.6.2 OTHER EMISSION SOURCES	4-5
4.7 BUILDING DOWNWASH EFFECTS FOR G-P PALATKA MILL	4-8
4.8 RECEPTOR LOCATION	4-9
4.9 BACKGROUND CONCENTRATIONS	4-10
5.0 <u>AIR MODELING ANALYSIS RESULTS</u>	5-1
5.1 AAQS ANALYSES	5-1
5.2 PSD CLASS II ANALYSIS	5-1
5.3 PSD CLASS I ANALYSIS	5-2

LIST OF APPENDICES

APPENDIX A	DIRECTION-SPECIFIC BUILDING INFORMATION USED FOR THE AIR MODELING ANALYSIS
------------	--

TABLE OF CONTENTS**LIST OF TABLES**

- 1-1 National and State AAQS, Allowable PSD Increments, and Significant Impact Levels
- 2-1 Maximum Future Emissions Used in the Modeling Analysis for Georgia-Pacific, Palatka
- 2-2 Maximum Baseline Emissions Used in the Modeling Analysis for Georgia-Pacific, Palatka
- 2-3 Stack Parameters and Locations Used in the Modeling Analysis for Georgia-Pacific, Palatka
- 3-1 Summary of PM₁₀ Ambient Monitoring Data Collected Near Palatka
- 3-2 Summary of Sulfur Dioxide Ambient Monitoring Data Collected Near Palatka
- 3-3 Summary of Carbon Monoxide Ambient Monitoring Data Collected Near Palatka
- 3-4 Summary of Continuous NO_x Ambient Monitoring Data Collected Near Palatka
- 4-1 Features of the ISCST3 Model
- 4-2 Summary of Competing SO₂ Facilities Included in the AAQS and PSD Class II Air Modeling Analyses
- 4-3 Inventory of SO₂ Sources Included in the AAQS and PSD Class II Air Modeling Analyses
- 4-4 SO₂ PSD-Increment Affecting Facilities Considered in the PSD Class I Increment Modeling Analyses
- 4-5 Summary of Competing SO₂ Sources Included in the PSD Class I Air Modeling Analysis
- 4-6 Summary of Competing PM₁₀ Facilities Included in the AAQS and PSD Class II Air Modeling Analyses
- 4-7 Summary of Competing PM₁₀ Sources Included in the AAQS and PSD Class II Air Modeling Analyses
- 4-8 Summary of Competing PM₁₀ Sources Included in the PSD Class I Air Modeling Analysis
- 4-9 Summary of Competing NO_x Facilities Considered in the AAQS Air Modeling Analyses
- 4-10 Summary of Competing NO_x Sources Included in the AAQS Air Modeling Analyses
- 4-11 Summary of Competing NO_x Sources Included in the PSD Class I Air Modeling Analysis
- 4-12 Structure Dimensions Used in the Georgia-Pacific Modeling Analysis
- 4-13 Summary of Direction-Specific Distances from the TRS Incinerator to G-P Plant Property Boundaries
- 4-14 PSD Class I Area Receptors Used in the Modeling Analysis

TABLE OF CONTENTS**LIST OF TABLES (Continued)**

- 5-1 Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources, AAQS Screening Analyses
- 5-2 Maximum Predicted Pollutant Impacts Due to All Future Sources for Comparison to AAQS, Refined Analysis
- 5-3 Maximum Predicted PSD Class II Increment Consumption, Screening Analysis
- 5-4 Maximum Predicted Class II PSD Increment Consumption, Refined Analysis
- 5-5 Maximum Predicted PSD Class I Increment at the Okefenokee and Wolf Island NWRs

LIST OF FIGURES

- 2-1 Site Map: Georgia-Pacific Corporation, Palatka Mill
- 2-2 Mill Plot Plan

1.0 INTRODUCTION

Georgia-Pacific Corporation (G-P) operates a Kraft Pulp Mill located in Palatka, Putnam County, Florida. An atmospheric dispersion modeling analysis of the G-P Palatka Mill has been conducted in support of an air construction permit application for the No. 3 Bleach Plant. The Florida Department of Environmental Protection (FDEP) issued a draft air construction permit for the No. 3 Bleach Plant on May 12, 1999. As a prerequisite to issuance of the final air construction permit, Georgia-Pacific must demonstrate that the G-P Palatka Mill is in compliance with all ambient air quality standards (AAQS) and Prevention of Significant Deterioration (PSD) Class II and Class I allowable increments.

This report contains the technical information and analysis developed in accordance with the PSD regulations as promulgated by the U.S. Environmental Protection Agency (EPA) and implemented through delegation to the FDEP. It presents an assessment of potential air quality impacts associated with the G-P Palatka Mill. The following pollutants, for which AAQS have been promulgated, are addressed:

- Particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}),
- Nitrogen dioxide (NO_2),
- Sulfur dioxide (SO_2), and
- Carbon monoxide (CO).

The existing applicable, national and Florida Ambient Air Quality Standards (AAQS) are presented in Table 1-1. Primary national AAQS were promulgated to protect the public health. Secondary national AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air.

Florida has adopted State AAQS in Rule 62-204.240. These standards are the same as the national AAQS, except in the case of SO_2 . For SO_2 , Florida has adopted the former 24-hour and annual average secondary standards of 260 and 60 micrograms per cubic meter ($\mu g/m^3$), respectively.

EPA has promulgated allowable PSD air quality increments, which limit increases in air quality levels above an air quality baseline concentration level for SO₂, PM₁₀, and NO₂. Increases above these increments would constitute significant deterioration. The EPA class designations and allowable PSD increments are presented in Table 1-1. The magnitude of the allowable increment depends on the classification of the area where source is located or will have an impact. Three classifications are designated based on criteria established in the Clean Air Act Amendments. Congress promulgated areas as Class I (international parks, national wilderness areas, and memorial parks larger than 5,000 acres, and national parks larger than 6,000 acres) or as Class II (all areas not designated as Class I). No Class III areas, which would be allowed greater deterioration than Class II areas, were designated.

Putnam County has been designated as an attainment or unclassifiable area for all criteria pollutants. The County is also classified as a PSD Class II area for PM₁₀, SO₂, and NO₂. The nearest PSD Class I area is the Okefenokee National Wilderness Area, located 111 km north of the G-P Palatka Mill.

The air quality impact analysis demonstrates that emissions from the G-P Palatka Mill will not result in ambient concentrations above the AAQS or the PSD Class II or Class I increments.

This report is divided into four major sections, including this introduction:

- Section 2.0 presents a description of the G-P Palatka facility, along with source emission rates and stack parameters;
- Section 3.0 presents existing air quality data for purposes of determining suitable background air quality concentrations for each pollutant;
- Section 4.0 presents the air modeling methodology, emissions inventories, and data used in the analysis;
- Section 5.0 presents the results, which demonstrate compliance of the G-P Palatka Mill with the AAQS and PSD increments.

Table I-1. National and State AAQS, Allowable PSD Increments, and Significant Impact Levels ($\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Time	AAQS			PSD Increments		Significant Impact Levels ^d
		National Primary Standard	National Secondary Standard	State of Florida	Class I	Class II	
Particulate Matter ^a (PM10)	Annual Arithmetic Mean	50	50	50	4	17	1
	24-Hour Maximum	150 ^b	150 ^b	150 ^b	8	30	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum	365 ^b	NA	260 ^b	5	91	5
	3-Hour Maximum	NA	1,300 ^b	1,300 ^b	25	512	25
Carbon Monoxide	8-Hour Maximum	10,000 ^b	10,000 ^b	10,000 ^b	NA	NA	500
	1-Hour Maximum	40,000 ^b	40,000 ^b	40,000 ^b	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone ^a	1-Hour Maximum	235 ^c	235 ^c	235 ^c	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	1.5	NA	NA	NA

Note: Particulate matter (PM10) = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.

NA = Not applicable, i.e., no standard exists.

^a On July 18, 1997, EPA promulgated revised AAQS for particulate matter and ozone. For particulate matter, PM2.5 standards were introduced with a 24-hour standard of 65 ($\mu\text{g}/\text{m}^3$) (3-year average of 98th percentile) and an annual standard of 15 $\mu\text{g}/\text{m}^3$ (3-year average at community monitors). Implementation of these standards are many years away. The ozone standard was modified to be 0.08 ppm for 8-hour average; achieved when 3-year average of 99th percentile is 0.08 ppm or less. FDEP has not yet adopted these standards.

^b Short-term maximum concentrations are not to be exceeded more than once per year.

^c Achieved when the expected number of days per year with concentrations above the standard is fewer than 1.

^d Maximum concentrations.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978. 40 CFR 50. 40 CFR 52.21. Rule 62-204, F.A.C.

2.0 PROJECT DESCRIPTION

2.1 SITE DESCRIPTION

The G-P Palatka Mill is located in Palatka, Putnam County, Florida. A site map of the area, showing the plant property boundaries, is provided in Figure 2-1. The G-P Palatka Mill consists of a Kraft pulp and paper mill which has three power boilers (1 natural-gas fired; 2 No. 6 fuel oil-fired), a recovery boiler and smelt dissolving tank, a lime kiln, a total reduced sulfur (TRS) incinerator, and a combination bark/oil-fired boiler.

2.2 G-P PALATKA EMISSIONS

The maximum short-term (hourly) and annual (long-term) emissions for all permitted point sources of PM₁₀, SO₂, nitrogen oxides (NO_x) and CO located at the G-P Palatka Mill are presented in Table 2-1. The basis for the maximum emissions are the permitted emission rates, or maximum calculated emission rates, based on permitted operational rates.

Baseline emissions for the G-P Palatka Mill, for purposes of calculating PSD increment consumption, are presented in Table 2-2. For SO₂ and PM₁₀, the major source baseline date is January 6, 1975; for NO_x it is March 8, 1988. The 1974 PSD baseline emissions were obtained from previous air modeling studies performed for the G-P Palatka Mill. The 1988 baseline emissions for NO_x were obtained directly from the 1988 Annual Operating Report submitted to FDEP by G-P.

2.3 SITE LAYOUT AND STRUCTURES

A plot plan of the G-P Palatka facility, showing stack locations, is presented in Figure 2-2. The dimensions of the major buildings and structures at the facility are presented in Section 4.0.

2.4 STACK PARAMETERS

Stack parameters for both the future case and the PSD baseline case are presented in Table 2-3.

Table 2-1. Maximum Future Emissions Used in the Modeling Analysis for Georgia-Pacific, Palatka

Emission Unit	Unit ID	PM/PM ₁₀		CO		SO ₂		NO _x	
		(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)
Short-Term Emissions									
New Bleach Plant	BLCH	--	--	63.4	7.99	--	--	--	--
TRS Incinerator	TRS	5.5	0.69	0.2	0.03	600.0	75.60	--	--
No. 4 Recovery Boiler	RB4	75.6	9.53	1,025.4	129.20	109.9	13.85	--	--
No. 4 Smelt Dissolving Tank	SDT4	12.6	1.59	--	--	7.9	1.00	--	--
No. 4 Lime Kiln	LK4	26.0	3.28	7.3	0.92	10.9	1.37	--	--
No. 4 Power Boiler	PB4	26.0	3.28	4.5	0.57	359.0	45.23	--	--
No. 5 Power Boiler	PB5	51.9	6.53	19.5	2.46	1,564.5	197.13	--	--
No. 6 Power Boiler	PB6	3.3	0.42	8.1	1.02	11.1	1.40	--	--
No. 4 Combination Boiler	CB4	125.6	15.83	774.7	97.61	1,151.0	145.03	--	--
TOTALS		326.5	41.1	1,903.1	239.8	3,814.3	480.6	--	--
Long-Term Emissions									
New Bleach Plant	BLCH	--	--	63.4	7.99	--	--	--	--
TRS Incinerator	TRS	5.5	0.69	0.2	0.03	383.0	48.26	1.7	0.22
No. 4 Recovery Boiler	RB4	75.6	9.53	1,025.4	129.20 ^a	109.9	13.85	168.5	21.23
No. 4 Smelt Dissolving Tank	SDT4	12.6	1.59	--	--	7.9	1.00	15.8	1.99
No. 4 Lime Kiln	LK4	26.0	3.28	7.3	0.92	10.9	1.37	50.3	6.34
No. 4 Power Boiler	PB4	26.0	3.28	4.5	0.57	359.0	45.23	42.0	5.29
No. 5 Power Boiler	PB5	51.9	6.53	19.5	2.46	1,564.5	197.13	183.4	23.11
No. 6 Power Boiler	PB6	3.3	0.42	8.1	1.02	11.1	1.40	48.8	6.15
No. 4 Combination Boiler	CB4	125.6	15.83	774.7	97.61	1,151.0	145.03	131.6	16.58
TOTALS		326.5	41.1	1,903.1	239.8	3,597.3	453.3	642.1	80.9

^a For No. 4 Recovery Boiler CO emissions, represents maximum 8-hr emissions.

Table 2-2. Maximum Baseline Emissions Used in the Modeling Analysis for Georgia-Pacific, Palatka

Emission Unit	Unit ID	PM/PM ₁₀		SO ₂		NO _x	
		(1974)	(1974)	(1974)	(1974)	(1988)	(1988)
<u>Short-Term Emissions</u>							
		(lb/hr)	(g/s)	(lb/hr)	(g/s)	--	--
No. 1 Recovery Boiler	RB1	78.8	9.93	49.3	6.21	--	--
No. 2 Recovery Boiler	RB2	100.7	12.69	70.5	8.88	--	--
No. 3 Recovery Boiler	RB3	109.0	13.73	68.1	8.58	--	--
No. 4 Recovery Boiler	RB4	166.5	20.98	277.5	34.97	--	--
No. 1 Smelt Dissolving Tank	SDT1	2.4	0.30	1.0	0.13	--	--
No. 2 Smelt Dissolving Tank	SDT2	3.6	0.45	1.4	0.18	--	--
No. 3 Smelt Dissolving Tank	SDT3	3.3	0.42	1.4	0.18	--	--
No. 4 Smelt Dissolving Tank	SDT4	40.8	5.14	5.6	0.71	--	--
No. 1 Lime Kiln	LK1	180.0	22.68	1.9	0.24	--	--
No. 2 Lime Kiln	LK2	95.0	11.97	1.9	0.24	--	--
No. 3 Lime Kiln	LK3	93.0	11.72	3.8	0.48	--	--
No. 4 Lime Kiln	LK4	31.6	3.98	11.1	1.40	--	--
No. 4 Power Boiler	PB4	26.0	3.28	358.9	45.22	--	--
No. 5 Power Boiler	PB5	46.4	5.85	1,279.0	161.15	--	--
No. 4 Combination Boiler	CB4	711.8	89.69	962.5	121.28	--	--
TOTALS		1,688.9	212.80	3,093.9	389.83	--	--
<u>Long-Term Emissions</u>							
		(TPY)	(g/s)	(TPY)	(g/s)	(TPY)	(g/s)
No. 1 Recovery Boiler	RB1	345	9.92	216	6.21	--	--
No. 2 Recovery Boiler	RB2	441	12.69	309	8.89	--	--
No. 3 Recovery Boiler	RB3	477	13.72	298	8.57	--	--
No. 4 Recovery Boiler	RB4	729	20.97	1,215	34.95	392.1	11.28
No. 1 Smelt Dissolving Tank	SDT1	11	0.32	4	0.12	--	--
No. 2 Smelt Dissolving Tank	SDT2	16	0.46	6	0.17	--	--
No. 3 Smelt Dissolving Tank	SDT3	14	0.40	6	0.17	--	--
No. 4 Smelt Dissolving Tank	SDT4	193	5.55	25	0.72	0.0	0.0
No. 1 Lime Kiln	LK1	783	22.52	8	0.23	--	--
No. 2 Lime Kiln	LK2	415	11.94	8	0.23	--	--
No. 3 Lime Kiln	LK3	407	11.71	17	0.49	--	--
No. 4 Lime Kiln	LK4	54.6	1.57	49	1.40	249.4	7.17
No. 4 Power Boiler	PB4	105	3.02	1,192	34.29	113.1	3.25
No. 5 Power Boiler	PB5	186	5.35	4,658	134.00	560.3	16.12
No. 4 Combination Boiler	CB4	2,561	73.67	1,008	29.00	313.6	9.02
TOTALS		6,737.6	193.82	9,019	259.44	1,628.5	46.8

References:

1974 Baseline: Air Quality Impact Analysis of TRS Incinerator. 1987. KBN Engineering and Applied Sciences, Inc.

1988 Baseline: Annual Operating Report submitted to FDEP for 1988.

Table 2-3. Stack Parameters and Locations Used in the Modeling Analysis, Georgia-Pacific, Palatka

Emission Unit	Unit ID	Relative Location *				Stack Parameters				Operating Parameters			
		X		Y		Height		Diameter		Temperature		Velocity	
		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(°F)	(°K)	(ft/s)	(m/s)
Future Conditions													
Existing TRS Incinerator	TRS	0	0	0	0	250	76.2	3.08	0.94	500	533	105.1	32.03
No. 4 Recovery Boiler	RB4	-630	-192	300	91	230	70.1	12.00	3.66	400	478	63.7	19.42
No. 4 Smelt Dissolving Tanks	SDT4 ^b	-475	-145	415	126	206	62.8	5.00	1.52	160	344	21.2	6.46
No. 4 Lime Kiln	LK4	70	21	-320	-98	131	39.9	4.42	1.35	150	339	60.8	18.53
No. 4 Power Boiler	PB4	-265	-81	435	133	200	61.0	4.00	1.22	395	475	71.6	21.82
No. 5 Power Boiler	PB5	-332	-101	330	101	232	70.7	9.00	2.74	445	503	60.6	18.47
No. 4 Combination Boiler	CB4	-313	-95	340	104	237	72.2	8.00	2.44	440	500	71.8	21.88
No. 6 Power Boiler	PB6	-298	-91	390	119	60	18.3	6.00	1.83	660	622	57.2	17.43
New Bleach Plant	BLCH	359	109	464	141	118	36.0	4.00	1.22	150	339	30.5	9.30
NOx PSD Baseline (1988) Conditions													
Existing TRS Incinerator	TRS	0	0	0	0	250	76.2	3.08	0.94	500	533	105.1	32.03
No. 4 Recovery Boiler	RB4	-630	-192	300	91	230	70.1	12.00	3.66	400	478	63.7	19.42
No. 4 Smelt Dissolving Tanks	SDT4 ^b	-475	-145	415	126	206	62.8	5.00	1.52	160	344	21.2	6.46
No. 4 Lime Kiln	LK4	70	21	-320	-98	131	39.9	4.42	1.35	150	339	60.8	18.53
No. 4 Power Boiler	PB4	-265	-81	435	133	122	37.2	4.00	1.22	395	475	71.6	21.82
No. 5 Power Boiler	PB5	-332	-101	330	101	232	70.7	9.00	2.74	445	503	60.6	18.47
No. 4 Combination Boiler	CB4	-313	-95	340	104	237	72.2	8.00	2.44	440	500	71.8	21.88
PM/SO2 PSD Baseline (1974) Conditions													
No. 1 Recovery Boiler	RB1	-70	-21	190	58	250	76.2	12.0	3.66	188	360	28.9	8.80
No. 2 Recovery Boiler	RB2	-70	-21	190	58	250	76.2	12.0	3.66	210	372	28.9	8.80
No. 3 Recovery Boiler	RB3	-183	-56	118	36	133	40.5	11.2	3.41	210	372	23.9	7.28
No. 4 Recovery Boiler	RB4	-630	-192	300	91	230	70.1	12.0	3.66	394	474	55.3	16.86
No. 1 Smelt Dissolving Tank	SDT1	-70	-21	190	58	100	30.5	2.5	0.76	199	366	24.7	7.53
No. 2 Smelt Dissolving Tank	SDT2	-70	-21	190	58	100	30.5	3.0	0.91	215	375	31.2	9.51
No. 3 Smelt Dissolving Tank	SDT3	-183	-56	118	36	109	33.2	2.5	0.76	205	369	11.7	3.57
No. 4 Smelt Dissolving Tanks	SDT4	-475	-145	415	126	206	62.8	5.0	1.52	163	346	27.1	8.26
No. 1 Lime Kiln	LK1	120	37	-143	-44	50	15.2	4.2	1.28	262	401	17.2	5.24
No. 2 Lime Kiln	LK2	105	32	-150	-46	52	15.9	5.6	1.71	154	341	35.0	10.67
No. 3 Lime Kiln	LK3	107	33	-242	-74	52	15.9	5.6	1.71	156	342	27.8	8.47
No. 4 Lime Kiln	LK4	67	20	-318	-97	149	45.4	4.3	1.31	172	351	54.0	16.46
No. 4 Power Boiler	PB4	-265	-81	435	133	122	37.2	4.0	1.22	399	477	47.7	14.54
No. 5 Power Boiler	PB5	-332	-101	330	101	232	70.7	9.0	2.74	476	520	52.4	15.97
No. 4 Combination Boiler	CB4	-313	-95	340	104	237	72.2	10.0	3.05	399	477	34.5	10.52

* Relative to TRS Incinerator stack location and true north

^b Source has two stacks. Location is centroid.

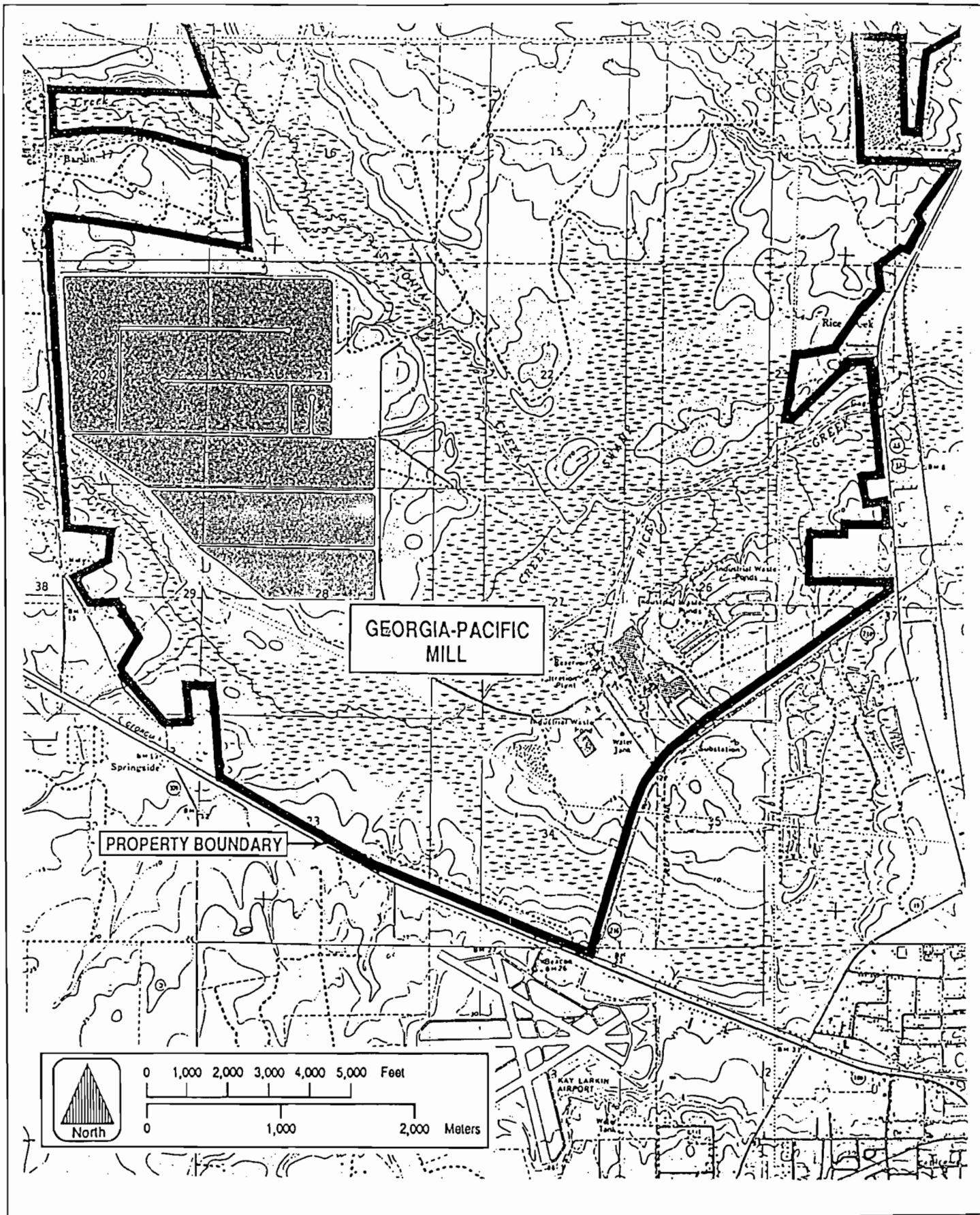


Figure 2-1.

Site Map: Georgia-Pacific Corporation

Palatka Mill



3.0 AMBIENT MONITORING ANALYSIS

Background concentrations are necessary to determine total ambient air quality impacts to demonstrate compliance with the AAQS. "Background concentrations" are defined as concentrations due to sources other than those specifically included in the modeling analysis. For all pollutants, background would include other point sources not included in the modeling (i.e., distant sources or small sources), fugitive emission sources, and natural background sources.

3.1 PM₁₀ AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 3-1 is a summary of existing ambient PM₁₀ data for monitors located in the vicinity of the G-P Palatka Mill. Data are presented for the last year of record, 1998. As shown, only one PM₁₀ monitor was operational in the vicinity of Palatka during this period. The monitoring data show that ambient PM₁₀ concentrations were well below the ambient air quality standards of 150 $\mu\text{g}/\text{m}^3$ (maximum 24-hour average) and 50 $\mu\text{g}/\text{m}^3$ (annual average) at all sites. The second highest recorded 24-hour concentration was 58 $\mu\text{g}/\text{m}^3$, and the maximum annual average concentration was 26 $\mu\text{g}/\text{m}^3$.

For purposes of an ambient PM₁₀ background concentration for use in the modeling analysis, the annual average PM₁₀ concentration of 26 $\mu\text{g}/\text{m}^3$, recorded at the Palatka monitor during 1998, was selected. This concentration was utilized for both the 24-hour and annual average background PM₁₀ concentrations in the air modeling analysis since the existing G-P Palatka Mill impacts this monitor. Other major point sources of PM₁₀ in the area, including Seminole Electric and FPL Putnam, are also included explicitly in the modeling analysis. Therefore, this monitor would be influenced significantly by point sources that are already included in the modeling analysis and would, therefore, represent a more reasonable estimate of actual background concentrations.

3.2 SO₂ AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 3-2 is a summary of existing ambient SO₂ data for monitors located in the vicinity of the G-P Palatka Mill. Data are presented for the last year of record, 1997. As shown, two SO₂ monitors were operational in the vicinity of Palatka during this period. These stations were not operated in 1998.

The monitoring data show that ambient SO₂ concentrations were well below the ambient air quality standards of 1,300 µg/m³, maximum 3-hour average; 260 µg/m³, maximum 24-hour average; and 60 µg/m³, annual average at both sites. The second highest recorded 24-hour concentration was 40 µg/m³, and the annual average concentration was 6 µg/m³.

For purposes of an ambient SO₂ background concentration for use in the modeling analysis, the annual average SO₂ concentration of 6 µg/m³ recorded at the highest Palatka monitor during 1997 was selected. This concentration was utilized for both 3-hour, 24-hour and annual average background SO₂ concentrations in the air quality impact analysis since the existing G-P Palatka Mill impacts this monitor, which is included explicitly in the modeling analysis. Other major point sources of SO₂ in the area, such as Seminole Electric and FPL Putnam, are also included explicitly in the modeling analysis. Therefore, this monitor would be influenced significantly by point sources that are already accounted for in the modeling analysis and would represent a more reasonable estimate of the actual background concentrations.

3.3 CO AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 3-3 is a summary of existing continuous ambient CO data for monitors located in the area of Palatka. Data are presented for the last year of record, 1998. As shown, no CO monitors were operational in the vicinity of Palatka during this period. The nearest CO monitoring stations were located in Jacksonville. Although several CO monitoring stations are located in Jacksonville, the station exhibiting the lowest CO levels was selected for use, since this would be more representative of levels in Palatka.

The CO monitoring data show that ambient CO concentrations were well below the ambient air quality standards of: 35 ppm ($40,000 \mu\text{g}/\text{m}^3$) (maximum 1-hour average); and 9 ppm ($10,000 \mu\text{g}/\text{m}^3$) (maximum 8-hour average). The monitor in Jacksonville is not considered to be representative of the Palatka area due to the distance this monitor is from Palatka, but is the closest monitoring station.

For purposes of an ambient CO background concentration for use in the modeling analysis, the second highest 1-hour CO concentration of $5,333 \mu\text{g}/\text{m}^3$ and the second highest 8-hour concentration of $3,222 \mu\text{g}/\text{m}^3$, recorded at the Jacksonville monitor during 1998 was selected. These concentrations are very conservative since this monitor is impacted by significant mobile sources in Jacksonville, while Palatka has relatively little mobile traffic.

3.4 NO_x AMBIENT BACKGROUND CONCENTRATIONS

Presented in Table 3-4 is a summary of existing continuous ambient NO_x data for monitors located in the area of Palatka. Data are presented for the last year of record, 1998. As shown, no NO_x monitors were operational in the vicinity of Palatka during this period. The nearest NO_x monitoring stations were located in Jacksonville.

The NO_x monitoring data show that ambient NO_x concentrations were well below the ambient air quality standard of $100 \mu\text{g}/\text{m}^3$ annual average. The monitor in Jacksonville is not considered to be representative of the Palatka area due to the distance this monitor is from Palatka, but is the closest monitoring station to Palatka.

For purposes of an ambient NO_x background concentration for use in the modeling analysis, the annual average concentration of $28 \mu\text{g}/\text{m}^3$, recorded at the Jacksonville monitor during 1998, was selected. This concentration is very conservative since this monitor is impacted by significant mobile sources in Jacksonville, while Palatka has relatively little mobile traffic.

Table 3-1. Summary of PM₁₀ Ambient Monitoring Data Collected Near Palatka

Year	County	Station ID	Monitor Location	Number of Daily Observations	Concentration ($\mu\text{g}/\text{m}^3$)			
					Maximum 24-Hour	2nd-High 24-Hour	3rd-High 24-Hour	Annual Average
1998	Putnam	12-107-0008	Palatka - Comfort and Port Roads	63	136	58	47	26

Note: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

Table 3-2. Summary of Sulfur Dioxide Ambient Monitoring Data Collected Near Palatka

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Concentration ($\mu\text{g}/\text{m}^3$)				
					Maximum 3-Hour	2nd High 3-Hour	Maximum 24-Hour	2nd-High 24-Hour	Annual Average
1997	Putnam	3780-007-JOL	Palatka-West River Rd. & SR 17	8,402	196	177	34	32	4
	Putnam	3780-008-FOZ	100 ft west of Comfort and Port Roads	8,623	255	181	44	40	6

Note: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

Table 3-3. Summary of Carbon Monoxide Ambient Monitoring Data Collected Near Palatka

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Concentration ($\mu\text{g}/\text{m}^3$)			
					Maximum 1-Hour	2nd-High 1-Hour	Maximum 8-Hour	2nd-High 8-Hour
1998	Duval	12-031-0083	Jacksonville-1200 S. McDuff Ave	8,013	5,444 (4.9 ppm)	5,333 (4.8 ppm)	3,444 (3.1 ppm)	3,222 (2.9 ppm)

Note: ppm = parts per million.
 1 ppm = 1,111 $\mu\text{g}/\text{m}^3$.
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

Table 3-4. Summary of Continuous NO_x Ambient Monitoring Data Collected Near Palatka

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Concentration ($\mu\text{g}/\text{m}^3$)
					Annual Average
1998	Duval	12-031-0032	Jacksonville-2900 Bennett St.	8,204	28 (0.015 ppm)

Note: ppm = parts per million.
 0.053 ppm = 100 $\mu\text{g}/\text{m}^3$.
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

4.0 AIR QUALITY IMPACT ANALYSIS METHODOLOGY

4.1 AIR MODELING ANALYSIS APPROACH

An air quality impact analysis of the G-P Palatka Mill was conducted for four pollutants for which AAQS have been set: SO₂, NO₂, PM₁₀, and CO. The air quality modeling analysis was performed using the Industrial Source Complex Short-Term (ISCST3) model, Version 98356, currently recommended for regulatory applications, to assess maximum ground-level impacts due to the G-P Palatka Mill and other sources in the area. The analysis followed EPA and FDEP modeling guidelines for assessing compliance with the AAQS and PSD increments.

The impact analysis used screening and refinement phases to determine the maximum pollutant impacts associated with the G-P facility. The difference between the two modeling phases is the density of the receptor grid spacing used when predicting concentrations. Concentrations are predicted for the screening phase using a coarse (i.e., large spacing) receptor grid and a 5-year meteorological data record. In this analysis, the receptor grid consisted of a polar receptor grid with a 10-degree angular spacing between receptors.

Refinements of the maximum predicted concentrations from the screening phase are typically performed in the vicinity of the receptors of the screening receptor grid at which the highest predicted concentrations occurred over the 5-year period. Generally, if maximum concentrations predicted in another year are within 10 percent of the overall maximum concentration predicted for the 5-year period, then the other concentrations are refined as well. Modeling refinements are performed to determine maximum concentrations with a receptor grid spacing of 100 meters (m) or less.

The domain of a refined receptor grid will generally extend to all adjacent screening receptors surrounding a particular screening grid receptor. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the

maximum concentration in the screening phase occurred. This approach is used to ensure that a valid maximum concentration is obtained.

Because the G-P Palatka Mill is located approximately 111 and 179 km, respectively, from the Okefenokee national Wildlife Refuge (ONWR) and the Wolf Island NWR (WINWR) PSD Class I areas, an increment analysis was conducted at these two areas.

A more detailed description of the model, along with the emission inventory, meteorological data, and screening receptor grids, is presented in the following sections.

4.2 AAQS AND PSD CLASS II INCREMENT ANALYSES

In general, when 5 years of meteorological data are used, the highest annual and the highest, second-highest (H2H) short-term concentrations are to be compared to the applicable AAQS and allowable PSD Class II increments. The H2H is calculated for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

This approach is consistent with most air quality standards and all allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

For the AAQS analysis, the future emissions of the plant site are modeled together with background emission facilities. Additionally, a non-modeled background concentration is added to the maximum predicted air quality to determine a total air quality concentration. The maximum annual and H2H short-term total concentrations are compared to the AAQS.

For the PSD Class II increment analysis, the PSD increment consuming and expanding sources at the G-P Palatka Mill site are modeled with background PSD consuming or expanding sources. The maximum annual and H2H short-term PSD increment are compared to the allowable PSD Class II increments.

4.3 PSD CLASS I INCREMENT ANALYSIS

For PM_{10} , SO_2 and NO_2 , which have established PSD Class I allowable increments, a detailed PSD increment analysis was performed at the PSD Class I area. For the PSD Class I increment analysis, the PSD increment consuming and expanding sources at the G-P Palatka site are modeled along with other background PSD consuming or expanding sources within 100-150 miles from the PSD Class I area. The maximum annual and H2H short-term concentrations are compared to the allowable PSD Class I increments.

4.4 MODEL SELECTION

The ISCST3 dispersion model (Version 98356) was used to evaluate all pollutant impacts. This model is currently available on the EPA's Internet web site, Support Center for Regulatory Air Models (SCRAM), within the Technical Transfer Network (TTN). A listing of ISCST3 model features is presented in Table 4-1. The ISCST3 model is designed to calculate hourly concentrations based on hourly meteorological data (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The ISCST3 model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. These areas are referred to as simple terrain. The model can also be applied in areas where the terrain exceeds the stack heights. These areas are referred to as complex terrain.

Since the terrain surrounding the G-P Palatka Mill is flat, the modeling analysis assumed that all receptors were at the base elevation of the facility (i.e., flat terrain assumption in ISCST3).

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISCST3 model can run in the rural or urban land use mode, which affects stability dispersion coefficients, wind speed profiles, and mixing heights. Land use can be characterized based on a scheme recommended by EPA (Auer, 1978). If more than 50 percent of the land use within a 3-km radius circle around a project is classified as industrial or commercial, or high-density residential, then the urban option should be selected. Otherwise, the rural option is appropriate. Based on reviews of aerial and U.S. Geological Survey (USGS) topographical maps and a site visit, the land use within a 3-km (1.9-mile) radius of the G-P Palatka Mill site is considered to be rural (i.e., very little heavy industrial, light-moderate industrial, commercial, or compact residential land use categories). Therefore, the rural mode was used in the air dispersion model to predict impacts from the G-P Palatka Mill and other emission sources considered in the modeling analysis.

The ISCST3 model was used to predict maximum pollutant concentrations for averaging the annual and 24-hour, 8-hour, 3-hour, and 1-hour averaging periods. The predicted concentrations were then compared to applicable significant impact levels, monitoring *de minimis* levels, allowable PSD increments, and the AAQS.

4.5 METEOROLOGICAL DATA

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) offices located at the Jacksonville International Airport (JAX) and Waycross, GA, respectively. Concentrations were predicted using 5 years of hourly meteorological data from 1984 through 1988. The NWS office at JAX is located approximately 91 km (56 miles) north of the site and is the closest primary weather station to the study area considered to have meteorological data representative of the project site. The JAX station meteorological data have been used for previous air modeling studies for the G-P Palatka Mill.

The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling height. The wind speed, cloud cover, and cloud ceiling values were used in the ISCST3 meteorological preprocessor program to determine atmospheric stability using the Turner stability scheme. Based on the temperature measurements at morning and afternoon, mixing heights were calculated from the radiosonde data at Waycross, GA using the Holzworth approach (Holzworth, 1972). Hourly mixing heights were derived from the morning and afternoon mixing heights using the interpolation method developed by EPA (Holzworth, 1972). The hourly surface data and mixing heights were used to develop a sequential, hourly meteorological data set (i.e., wind direction, wind speed, temperature, stability, and mixing heights). Because the observed hourly wind directions at the NWS stations are classified into one of thirty-six 10-degree sectors, the wind directions were randomized within each sector to account for the expected variability in air flow. These calculations were performed using the EPA RAMMET meteorological preprocessor program.

4.6 EMISSION INVENTORY

4.6.1 G-P PALATKA MILL

The maximum emissions for the G-P Palatka Mill for the future operating condition are summarized in Table 2-1. The PSD baseline emissions for PM₁₀, SO₂ and NO_x are presented in Table 2-2. Future and baseline stack parameters and source locations are presented in Table 2-3.

It is noted, based upon the ISCST3 model, G-P will raise the stack height of the No. 4 Power Boiler from the current 122 feet to a new height of 200 feet. This will insure that the predicted ISCST3 model and SO₂ concentrations do not exceed the AAQS for SO₂ in the vicinity of the G-P plant.

4.6.2 OTHER EMISSION SOURCES

The emission inventories for other non-G-P facilities were developed mainly from data bases from previous air modeling studies performed by Golder Associates for G-P

Palatka, from the recent JEA Northside application, and from air permit data. For the AAQS and PSD Class II increment analysis, only other major sources located in Putnam County were included. Due to the relatively large distance of other facilities from the G-P site, these other facilities were assumed to be included in the background air quality concentrations for purposes of predicting total ambient air impacts.

Sulfur Dioxide

A summary of all facilities, their locations with respect to the G-P Palatka Mill, and their SO₂ emissions is provided in Table 4-2. The Seminole Electric and FP&L Putnam and Palatka facilities are the only major sources located in Putnam County. As a result, these facilities were included in the AAQS and PSD Class II increment air modeling analyses. The individual source emissions, stack, and operating parameters for the AAQS and PSD Class II modeling analyses were developed and are presented in Table 4-3.

A PSD Class I increment modeling analysis is required for SO₂. The facilities that were considered in the PSD Class I increment analysis are presented in Tables 4-4 and 4-5. All PSD increment consuming or expanding sources within these facilities are included in the analysis.

Each source listed in Table 4-5 includes a description of the source, the ID name of the source used in the air modeling analysis, and whether the source consumes or expands PSD increment. Facilities with PSD-affecting sources may have PSD baseline sources. PSD baseline source emissions and stack configurations no longer exist but were in effect during the SO₂ PSD baseline period of 1974-75. These sources expand PSD increment and are represented in the PSD increment air modeling analyses as negative emission sources.

Particulate Matter

A summary of all major PM₁₀ emitting facilities located in Putnam County, their locations with respect to the G-P Palatka Mill, and their PM emissions are provided in Table 4-6.

The individual source emissions, stack, and operating parameters for the AAQS and PSD Class II modeling analyses were developed and are presented in Table 4-7.

A PSD Class I increment modeling analysis is required for PM_{10} . The sources that were included in the analysis are presented in Table 4-8. All PSD increment consuming or expanding sources within these facilities are included in the analysis. Each source listed in Table 4-8 includes a description of the source, the ID name of the source used in the air modeling analysis, and an indication of whether the source consumes or expands PSD increment. Facilities with PSD-affecting sources may have baseline sources. Baseline sources may no longer operate but did operate during the PM_{10} PSD baseline period of 1974-75. These sources expand PSD increment and are represented in the PSD increment air modeling analyses as negative emission sources.

Carbon Monoxide

No other facilities were considered in the CO AAQS analysis. The conservatively high CO background concentration developed (see Section 3.0) provides an adequate background representing other CO emission sources in the Putnam County area.

Nitrogen Oxides

A summary of all major NO_x emitting facilities located in Putnam County, their locations with respect to the G-P Palatka Mill, and their NO_x emissions are provided in Table 4-9. The individual source emissions, stack, and operating parameters for the AAQS modeling analysis were developed and are presented in Table 4-10.

A PSD Class I increment modeling analysis is required for NO_x . The facilities that were considered in the PSD Class I increment analysis are presented in Table 4-11. All PSD increment consuming or expanding sources within these facilities are included in the analysis. Each source listed in Table 4-11 includes a description of the source, the ID name of the source used in the air modeling analysis, and an indication of whether the source consumes or expands PSD increment. The NO_2 PSD baseline period is 1988.

Sources that expand PSD increment are represented in the PSD increment air modeling analyses as negative emission sources.

4.7 BUILDING DOWNWASH EFFECTS FOR G-P PALATKA MILL

Based on the building dimensions associated with buildings and structures at the plant, all stacks at the G-P Palatka Mill will comply with the good engineering practice (GEP) stack height regulations. However, these stacks are less than GEP height. Therefore, the potential for building downwash to occur was considered in the air modeling analysis for these stacks.

Generally, a stack is considered to be within the influence of a building if it is within the lesser of 5 times L , where L is the lesser dimension of the building height or projected width. The ISCST3 model uses two procedures to address the effects of building downwash. For both methods, the direction-specific building dimensions are input for H_b and l_b for 36 radial directions, with each direction representing a 10-degree sector. The H_b is the building height and l_b is the lesser of the building height or projected width. For short stacks (i.e., physical stack height is less than $H_b + 0.5 l_b$), the Schulman and Scire (1980) method is used. The features of the Schulman and Scire method are as follows:

1. Reduced plume rise as a result of initial plume dilution,
2. Enhanced plume spread as a linear function of the effective plume height,
and
3. Specification of building dimensions as a function of wind direction.

For cases where the physical stack height is greater than $H_b + 0.5 l_b$, but less than GEP, the Huber-Snyder (1976) method is used. Both downwash algorithms affect stacks that are within the influence of a building, without regard for the actual distance the stack or stack's plume is from the building during any given moment.

The building dimensions considered in the air modeling analysis for the G-P Palatka Mill are presented in Table 4-12. The location of the buildings and stacks can be found on the site plot plan (Figure 2-2). At the G-P Palatka Mill, several stacks are influenced by one or more buildings. For the modeling analysis, direction-specific building dimensions are input for H_b and l_b for 36 radial directions, with each direction representing a 10-degree sector. All direction-specific building parameters were calculated with the Building Profile Input Program (BPIP), Version 95086. The BPIP program was used to generate building data for the ISCST3 model input. A detailed listing of direction-specific building data used in the air modeling analysis is provided in Appendix A.

4.8 RECEPTOR LOCATIONS

For predicting maximum concentrations in the vicinity of the G-P Palatka Mill, an array of discrete polar receptors were used. The number of discrete receptors was 236, which included 36 receptors located along the property line of G-P Palatka Mill and 200 additional offsite receptors located at distances of 0.7, 1.1, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5 and 5.0 km from the existing TRS Incinerator stack location, the origin (i.e., 0,0) location for the air modeling analysis. A summary of the boundary receptors at G-P Palatka Mill is presented in Table 4-13.

Modeling refinements were performed, as needed, by employing a polar receptor grid with a maximum spacing of 100 m along each radial and an angular spacing between radials of 1 or 2 degrees. At a distance of less than 575 m, the angular distance between receptors is 100 m or less and additional refinements may not be performed. At distances of 600 m and beyond, modeling refinements are performed by employing an angular spacing between radials of 1 or 2 degrees and a spacing interval along radials of 100 m.

Pollutant concentrations for SO_2 , PM_{10} , and NO_2 were also predicted at 10 receptors located along the southern and eastern boundaries of the ONWR PSD Class I Area, plus one additional receptor located at the WINWR. A listing of the 11 Class I receptors is presented in Table 4-14. Due to the large distance from the G-P Palatka Mill to the

ONWR and WINWR, additional receptor refinements were not performed for these areas.

4.9 BACKGROUND CONCENTRATIONS

Total air quality impacts were predicted for the AAQS analysis by adding the maximum annual and highest, second-highest short-term concentrations due to all modeled sources to estimated background concentrations. Background concentrations are concentrations due to sources not explicitly included in the modeling analysis. These concentrations consist of two components:

- Impacts due to other non-modeled emission sources (i.e., point sources not explicitly included in the modeling inventory), and
- Natural and fugitive emission sources.

The non-modeled background concentrations were obtained from air quality monitoring data, as described in Section 3.0, and are as follows:

Pollutant	Averaging Period	Background Concentration ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-hour	26
	Annual	26
SO ₂	3-hour	6
	24-hour	6
	Annual	6
NO _x	Annual	28
CO	8-hour	3,222
	1-hour	5,333

Table 4-1. Features of the ISCST3 Model

ISCST3 Model Features	
<ul style="list-style-type: none">• Polar or Cartesian coordinate systems for receptor locations• Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations• Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).• Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects• Procedures suggested by Briggs (1974) for evaluating stack-tip downwash• Separation of multiple emission sources• Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations• Capability of simulating point, line, volume, area, and open pit sources• Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition• Variation of wind speed with height (wind speed-profile exponent law)• Concentration estimates for 1-hour to annual average times• Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain• Consideration of time-dependent exponential decay of pollutants• The method of Pasquill (1976) to account for buoyancy-induced dispersion• A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)• Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.	

Note: ISCST3 = Industrial Source Complex Short-Term.

Source: EPA, 1998.

Table 4-2. Summary of Competing SO₂ Facilities Included in the AAQS and PSD Class II Air Modeling Analyses

APIS Number	Facility	County	UTM Coordinates		Relative to G-P Palatka Mill				Maximum SO ₂ Emissions (TPY)
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction ^a (deg)	
31JAX540025	Seminole Power Plant ^a	Putnam	438.8	3289.2	4.8	5.8	7.5	40	75,392
31JAX540014	Florida Power & Light - Putnam ^b	Putnam	443.3	3277.6	9.3	-5.8	11.0	122	2,791
31JAX540016	Florida Power & Light - Palatka ^c	Putnam	442.8	3277.6	8.8	-5.8	10.5	123	-12,890
G-P Palatka Mill UTM Coordinates (km) (E,N):			434.0	3283.4					

^a PSD source.

^b Two of the four CT units (half the total plant emissions) consume PSD increment and are included in PSD increment analysis.

^c FPL Palatka has shutdown and is only included in PSD increment analysis.

Table 4-3. Inventory of SO₂ Sources Included in the AAQS and PSD Class II Air Modeling Analyses

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in	
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)			AAQS	Class II
31JAX540025	Seminole Power Plant	Units 1 and 2	SEMELECT	205.7	10.97	326.5	7.99	2168.80	CON	Yes	Yes
31JAX540014	Florida Power & Light - Putnam	4x70Mw CT/HRSG + DB	FPLPUTNM	22.3	3.15	437.4	58.60	351.69	CON ^a	Yes	Yes
31JAX540016	Florida Power & Light - Palatka	Unit 2	FPLPALAT	45.7	3.96	408.1	9.50	-257.03	EXP	No	Yes

Table 4-4. SO₂ PSD Increment Affecting Facilities Considered in the PSD Class I Increment Modeling Analysis

APIS Number	Facility	County	UTM Coordinates		Relative to Okefenokee NWA ^a			
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction (deg)
31DVL160039	Millenium Specialty Products	Duval	435.6	3360.7	52.6	-21.3	56.7	112
31DVL160006	Anheiser Busch, Inc	Duval	440.6	3366.8	57.6	-15.2	59.6	105
31DVL1600	Cedar Bay Cogeneration	Duval	441.7	3365.6	58.7	-16.4	60.9	106
31DVL160067	Stone Container Corp	Duval	441.8	3365.6	58.8	-16.4	61.0	106
31DVL160047	JEA - Kennedy Power Plant	Duval	440.0	3359.2	57.0	-22.8	61.4	112
31JAX160001	JEA - St. Johns River Power Park	Duval	447.1	3366.7	64.1	-15.3	65.9	103
31DVL160045	JEA - Northside Power Plant	Duval	446.9	3364.8	63.9	-17.2	66.2	105
---	Gilman Paper Co. St. Mary's GA	Camden	448.2	3401.3	65.2	19.3	68.0	74
31JAX450003	Jefferson-Smurfit Corp	Nassau	456.2	3394.2	73.2	12.2	74.2	81
31JAX540025	Seminole Power Plant	Putnam	438.8	3289.2	55.8	-92.8	108.3	149
31JAX540005	Georgia-Pacific Palatka	Putnam	434.0	3283.4	51.0	-98.6	111.0	153
31JAX540014	FPL Putnam Power Plant	Putnam	443.3	3277.6	60.3	-104.4	120.6	150
31JAX540016	FPL Palatka Power Plant	Putnam	442.8	3277.6	59.8	-104.4	120.3	150

^a Distance from southeastern corner UTM location (km) = 383.0 3382.0

Table 4-5. Summary of Competing SO₂ Sources Included in the PSD Class I Air Modeling Analysis

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	(EXP/CON)
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)		
31JAX540025	Seminole Power Plant	Units 1 and 2	SEMELECT	205.7	10.97	326.5	7.99	2168.80	CON
31JAX540014	Florida Power & Light - Putnam	4x70Mw CT/HRSG + DB	FPLPUTNM	22.3	3.15	437.4	58.60	351.69	CON ^a
31JAX540016	Florida Power & Light - Palatka	Unit 2	FPLPALAT	45.7	3.96	408.1	9.50	-257.03	EXP
31JAX450003	Jefferson-Smurfit Corp	RB5 Future stack 1	JSCR5a	87.8	2.74	483.7	18.96	15.6	CON
		RB5 Future stack 2	JSCR5b	87.8	2.74	483.7	18.96	15.6	CON
		RB4 Future	JSCR4	75.9	3.75	510.9	17.96	35.1	CON
		PB5 Future	JSCP5	78.3	3.35	497.6	18.17	253.1	CON
		PB7 Future	JSCP7	103.6	4.51	470.4	13.44	154.4	CON
		Lime Kiln 4 Future	JSCLK4	30.8	0.94	449.8	48.59	3.37	CON
		Smelt Dissolving Tank 4 Future	JSCSDT4	75.9	1.83	340.4	5.16	0.79	CON
		Smelt Dissolving Tank 5 Future	JSCSDT5	87.8	1.22	345.4	16.77	0.9	CON
		PBs 3 & 4 1974 Baseline	JSCP34b	69.2	2.44	483	16.86	-144.7	EXP
		PB5 1974 Baseline	JSCP5b	69.2	3.35	480	16.25	-170	EXP
		RB4 1974 Baseline	JSCR4b	75.9	3.51	493	18.78	-35.1	EXP
		RB3 1974 Baseline	JSCR3b	40.8	2.74	390	13.26	-10.5	EXP
		Lime Kiln 2 1974 Baseline	JSCLK2b	13.4	1.07	361	12.25	-1.3	EXP
		Lime Kiln 3 1974 Baseline	JSCLK3b	13.4	1.37	360	17.59	-1.3	EXP
		Smelt Diss. Tank 4 1974 Baseline	JSCSDT4b	69.5	1.83	350	5.21	-0.6	EXP
		Smelt Diss. Tank 3 1974 Baseline	JSCSDT3b	33.2	0.61	360	5.82	-0.2	EXP
---	Gilman Paper Co. St. Mary's GA	PB3 Future	GILPB3	83.8	4.3	450	2.82	87.29	CON
		Combination Boiler Future	GILCOBLR	45.7	3.05	326	7.76	88.75	CON
		RBs 2 & 3 Future	GILRB23	54.9	2.13	425	16.76	15.2	CON
		RB4 Future	GILRB4	76.2	2.59	411	12.19	15.8	CON
		Lime Kiln Future	GILLK	30.5	1.52	350	11.64	2.13	CON
		PB1 1974 Baseline	GILPB13b	83.8	4.3	449.7	7.3	-281	EXP
		PB4 1974 Baseline	GILPB4b	36.6	1.8	699.7	20	-59.9	EXP
		RB2 1974 Baseline	GILRB2b	47.2	2.3	425.8	13.1	-7.6	EXP
		RB3 1974 Baseline	GILRB3b	53.3	1.6	394.1	25.2	-7.6	EXP
		RB4 1974 Baseline	GILRB4b	76.2	2.6	427.4	22.1	-15.8	EXP
31JAX160001	JEA - St. Johns River Power Park		SJRPP12	195.1	6.79	342	27.4	1859.6	CON

Table 4-5. Summary of Competing SO₂ Sources Included in the PSD Class I Air Modeling Analysis

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	(EXP/CON)
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)		
31DVL160039	Millenium Specialty Products	Future	MILLENMF	13.7	1.22	449.8	5.5	4.01	CON
		1974 Baseline	MILLENMB	12.2	1.1	658	10.1	-8.49	EXP
31DVL160006	Anheiser Busch, Inc		ANHBUSCH	6.1	0.6	811	1.8	2.14	CON
31DVL1600	Cedar Bay Cogeneration	CFB Boiler	CEDBYCB	129.5	4.27	402.6	33.22	241.1	CON
		Dryers	CEDBYDRY	9.1	1.04	355.4	21.34	1.26	CON
31DVL160067	Stone Container Corp	Package Boilers 1-3 Future	SKCPAC13	61	2.44	447	16.18	3.2	CON
		PBs 1-3 1974 Baseline	SKCPB13b	32.3	1.83	433	20.12	-200	EXP
		BB1-2 1974 Baseline	SKCBB12b	41.5	2.44	329	13.72	-114	EXP
31DVL160047	JEA - Kennedy Power Plant	Unit 8 1974 Baseline	JEAKEN8B	45.7	3.2	394	10.4	-75.05	EXP
31DVL160045	JEA - Northside Power Plant	Repowered Units 1&2	JEANS12	151	4.57	330.9	19.2	139.42	CON
		Unit 1 1974 Baseline	JEANS1B	76.2	4.87	403	23.1	-690.92	EXP
		Unit 2 1974 Baseline	JEANS2B	88.4	5	394	13.1	-584.55	EXP

4-16

Table 4-6. Summary of Competing PM₁₀ Facilities Included in the AAQS and PSD Class II Air Modeling Analyses

APIS Number	Facility	County	UTM Coordinates		Relative to G-P Palatka Mill				Maximum
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction ^a (deg)	PM ₁₀ Emissions (TPY)
31JAX540025	Seminole Power Plant ^a	Putnam	438.8	3289.2	4.8	5.8	7.5	40	1,884
31JAX540014	Florida Power & Light - Putnam ^b	Putnam	443.3	3277.6	9.3	-5.8	11.0	122	1,077
31JAX540016	Florida Power & Light - Palatka ^c	Putnam	442.8	3277.6	8.8	-5.8	10.5	123	-325
G-P Palatka Mill UTM Coordinates (km) (E,N):			434.0	3283.4					

^a PSD source.

^b Two of the four CT units (half the total plant emissions) consume PSD increment and are included in PSD increment analysis.

^c FPL Palatka has shutdown and is only included in PSD increment analysis.

Table 4-7. Summary of Competing PM₁₀ Sources Included in the AAQS and PSD Class II Air Modeling Analyses

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in	
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)			AAQS	Class II
31JAX540025	Seminole Power Plant	Units 1 and 2	SEMELECT	205.7	10.97	326.5	7.99	54.20	CON	Yes	Yes
31JAX540014	Florida Power & Light - Putnam	4x70Mw CT/HRSG + DB	FPLPUTNM	22.3	3.15	437.4	58.60	31.00	CON ^a	Yes	Yes
31JAX540016	Florida Power & Light - Palatka	Unit 2	FPLPALAT	45.7	3.96	408.1	9.50	-9.35	EXP	No	Yes

^a Half of presented emission rate (i.e., 15.5 g/s) is used for PSD Class II analysis.

Table 4-8. Summary of Competing PM₁₀ Sources Included in the PSD Class I Air Modeling Analysis

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	(EXP/CON)
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)		
31JAX540025	Seminole Power Plant	Units 1 and 2	SEMELECT	205.7	10.97	326.5	7.99	54.20	CON
31JAX540014	Florida Power & Light - Putnam	4x70Mw CT/HRSG + DB	FPLPUTNM	22.3	3.15	437.4	58.60	15.50	CON
31JAX540016	Florida Power & Light - Palatka	Unit 2	FPLPALAT	45.7	3.96	408.1	9.50	-9.35	EXP
31JAX450003	Jefferson-Smurfit Corp	RB5 Future stack 1	JSCRB5a	87.8	2.74	483.7	18.96	3.95	CON
		RB5 Future stack 2	JSCRB5b	87.8	2.74	483.7	18.96	3.95	CON
		RB4 Future	JSCRB4	75.9	3.75	510.9	17.96	13	CON
		PB5 Future	JSCP5	78.3	3.35	497.6	18.17	11.6	CON
		PB7 Future	JSCP7	103.6	4.51	470.4	13.44	8.6	CON
		Lime Kiln 4 Future	JSCLK4	30.8	0.94	449.8	48.59	4.9	CON
		Smelt Dissolving Tank 4 Future	JSCSDT4	75.9	1.83	340.4	5.16	3.2	CON
		Smelt Dissolving Tank 5 Future	JSCSDT5	87.8	1.22	345.4	16.77	1.8	CON
		PBs 3 & 4 1974 Baseline	JSCP34b	69.2	2.44	483	16.86	-9.6	EXP
		PB5 1974 Baseline	JSCP5b	69.2	3.35	480	16.25	-15.8	EXP
		RB4 1974 Baseline	JSCRB4b	75.9	3.51	493	18.78	-17.2	EXP
		RB3 1974 Baseline	JSCRB3b	40.8	2.74	390	13.26	-5.2	EXP
		Lime Kiln 2 1974 Baseline	JSCLK2b	13.4	1.07	361	12.25	-2.2	EXP
		Lime Kiln 3 1974 Baseline	JSCLK3b	13.4	1.37	360	17.59	-2.5	EXP
		Smelt Diss. Tank 4 1974 Baseline	JSCSDT4b	69.5	1.83	350	5.21	-3.6	EXP
		Smelt Diss. Tank 3 1974 Baseline	JSCSDT3b	33.2	0.61	360	5.82	-1.7	EXP
31JAX160001	JEA - St. Johns River Power Park		SJRPP12	195.1	6.79	342	27.4	46.48	CON
31DVL1600	Cedar Bay Cogeneration	CFB Boiler	CEDBYCB	129.5	4.27	402.6	33.22	2.25	CON
		Dryers	CEDBYDRY	9.1	1.04	355.4	21.34	0.02	CON
31DVL160067	Stone Container Corp	Package Boilers 1-3 Future	SKCPAC13	61	2.44	447	16.18	0.9	CON
		PBs 1-3 1974 Baseline	SKCPB13b	32.3	1.83	433	20.12	-11.52	EXP
		BB1-2 1974 Baseline	SKCBB12b	41.5	2.44	329	13.72	-2.97	EXP
31DVL160047	JEA - Kennedy Power Plant	Unit 8 1974 Baseline	JEAKEN8B	45.7	3.2	394	10.4	-6.07	EXP
31DVL160045	JEA - Northside Power Plant	Repowered Units 1&2	JEANS12	151	4.57	330.9	19.2	7.66	CON
		Unit 1 1974 Baseline	JEANS1B	76.2	4.87	403	23.1	-43.62	EXP
		Unit 2 1974 Baseline	JEANS2B	88.4	5	394	13.1	-36.9	EXP

Table 4-9. Summary of Competing NO_x Facilities Considered in the AAQS Air Modeling Analyses

APIS Number	Facility	County	UTM Coordinates		Relative to G-P Palatka Mill				Maximum PM ₁₀ Emissions (TPY)
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction ^a (deg)	
31JAX540025	Seminole Power Plant	Putnam	438.8	3289.2	4.8	5.8	7.5	40	45,862
31JAX540014	Florida Power & Light - Putnam	Putnam	443.3	3277.6	9.3	-5.8	11.0	122	2,750
G-P Palatka Mill UTM Coordinates (km) (E,N):			434.0	3283.4					

Table 4-10. Summary of Competing NO_x Sources Included in the AAQS Air Modeling Analysis

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	
31JAX540025	Seminole Power Plant	Units 1 and 2	SEMELECT	205.7	10.97	326.5	7.99	1319.32
31JAX540014	Florida Power & Light - Putnam	4x70Mw CT/HRSG + DB	FPLPUTNM	22.3	3.15	437.4	58.60	346.45

Table 4-11. Summary of Competing NOx Sources Included in the PSD Class I Air Modeling Analysis

APIS Number	Facility	Units	ISCST3 ID Name	Stack Parameters				Emission Rate (g/s)	(EXP/CON)
				Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)		
31JAX540014	Florida Power & Light - Putnam	4x70Mw CT/HRSG + DB	FPLPUTNM	22.3	3.15	437.4	58.60	173.20	CON
31JAX450003	Jefferson-Smurfit Corp								
		RB5 Future stack 1	JSCR5a	87.8	2.74	483.7	18.96	10.6	CON
		RB5 Future stack 2	JSCR5b	87.8	2.74	483.7	18.96	10.6	CON
		RB4 Future	JSCR4	75.9	3.75	510.9	17.96	18.6	CON
		PB5 Future	JSCP5	78.3	3.35	497.6	18.17	37.3	CON
		PB7 Future	JSCP7	103.6	4.51	470.4	13.44	77.2	CON
		Lime Kiln 4 Future	JSCLK4	30.8	0.94	449.8	48.59	23.6	CON
		PB7 1988 Baseline	JSCP7b	103.6	4.42	489	13.52	-51.7	EXP
		PB5 1988 Baseline	JSCP5b	69.2	3.35	480	16.25	-17.3	EXP
		RB4 1988 Baseline	JSCR4b	75.9	3.51	493	18.78	-14.8	EXP
		RB5 1988 Baseline	JSCR5bb	87.8	2.74	496	14.36	-18.1	EXP
		Lime Kiln 2 1988 Baseline	JSCLK2b	13.4	1.07	361	12.25	-12	EXP
		Lime Kiln 3 1988 Baseline	JSCLK3b	13.4	1.37	360	17.59	-12	EXP
31JAX160001	JEA - St. Johns River Power Park		SJRPP12	195.1	6.79	342	27.4	929.8	CON
31DVL1600	Cedar Bay Cogeneration								
		3 CFB Boilers	CEDBYCB	129.5	4.27	402.6	33.22	63.57	CON
		Dryers	CEDBYDRY	9.1	1.04	355.4	21.34	0.18	CON
31DVL160067	Stone Container Corp								
		Package Boilers 1-3 Future	SKCPAC13	61	2.44	447	16.18	13.23	CON
		PBs 1-3 1988 Baseline	SKCPB13b	32.3	1.83	433	20.12	-24.53	EXP
		BB1-2 1988 Baseline	SKCBB12b	41.5	2.44	329	13.72	-13.93	EXP
31DVL160045	JEA - Northside Power Plant								
		Repowered Units 1&2	JEANS12	151	4.57	330.9	19.2	62.74	CON
		Unit 1 1988 Baseline	JEANS1B	76.2	4.87	403	23.1	-112.19	EXP

Table 4-12. Structure Dimensions Used in the Georgia-Pacific Modeling Analysis

Structure	Actual Building Dimensions					
	Height		Length		Width	
	ft	m	ft	m	ft	m
RB4 Preciptator	85	25.9	130	39.6	559	170.4
RB4 Boiler Building	193.7	59.0	104	31.7	100	30.5
Power Plant Building	107.6	32.8	92	28	92	28
Pulp Dryer No. 3	84.5	25.8	63	19.2	147	44.8
Pulp Dryer No. 5	70.5	21.5	306	93.3	95	29
Pulp Dryer No. 4	73	22.3	242	73.8	127	38.7
Warehouse Complex 1	62.67	19.1	1,382	421.2	411	125.3
Warehouse Complex 2	46.8	14.3	852	259.7	370	112.8
Nos. 1 and 2 Machines, Storage	71.16	21.7	232	70.7	412	125.6
Kraft Converting and Storing	60.75	18.5	264	80.5	516	157.3
Kraft Warehouse and Multi-Wall	56.7	17.3	274	83.5	507	154.5
Digester	62.2	19	264	80.5	32	9.8
No. 3 RB Building ^a	100	30.5	61	18.6	34	10.4
No 2 RB Building ^a	100	30.5	58	17.7	73	22.3

^a 1974 Baseline Only

Table 4-13. Summary of Direction-Specific Distances From the TRS Incinerator to G-P Plant Property Boundaries

Direction (Degrees)	Distance (m)	Direction (Degrees)	Distance (m)
10	5,000	190	750
20	4,500	200	1,829
30	2,500	210	1,829
40	2,500	220	1,981
50	1,500	230	2,134
60	1,500	240	2,438
70	1,500	250	2,896
80	838	260	3,048
90	686	270	3,658
100	533	280	3,962
110	457	290	4,572
120	457	300	5,182
130	457	310	4,801
140	457	320	4,875
150	457	330	6,000
160	488	340	5,500
170	533	350	5,250
180	610	360	5,125

Table 4-14. PSD Class I Area Receptors Used in the Modeling Analysis

PSD Class I Area	UTM Coordinates	
	East (km)	North (km)
Wolf Island NWR	470.5	3459.0
Okefenokee NWR	391.0	3417.0
Okefenokee NWR	390.0	3410.0
Okefenokee NWR	392.0	3400.0
Okefenokee NWR	390.0	3395.0
Okefenokee NWR	391.0	3390.0
Okefenokee NWR	390.0	3384.0
Okefenokee NWR	383.0	3382.0
Okefenokee NWR	378.0	3382.0
Okefenokee NWR	374.0	3383.0
Okefenokee NWR	370.0	3383.0

5.0 AIR MODELING ANALYSIS RESULTS

5.1 AAQS ANALYSES

The maximum predicted SO₂, PM₁₀, NO₂, and CO concentrations from the screening analysis due to all future modeled sources is presented in Table 5-1. Based on the results of the screening analyses, refined modeling analyses were performed for each pollutant. The refined modeling results are added to a measured, non-modeled background concentration to produce a cumulative total air quality concentration that can be compared with the AAQS. A summary of the refined analysis is presented in Table 5-2. All maximum impacts occurred at or near G-P's property boundary.

The maximum predicted total SO₂ concentrations are 29.5, 237, and 600 µg/m³, respectively for the annual, 24-hour and 3-hour averaging times. These concentrations are below the AAQS of 60, 260, and 1,300 µg/m³, respectively, for these averaging times.

The maximum predicted total PM₁₀ concentrations are 29.7 and 56 µg/m³, respectively for the annual and 24-hour averaging times. These concentrations are all below the AAQS of 50 and 150 µg/m³, respectively, for these averaging times.

The maximum predicted total CO concentrations are 5,456 and 12,011 µg/m³, respectively for the 8-hour and 1-hour averaging times. These concentrations are well below the AAQS of 10,000 and 40,000 µg/m³, respectively, for these averaging times.

The maximum predicted total NO_x concentration is 46 µg/m³, for the annual averaging time. This concentration is well below the AAQS of 100 µg/m³, for the annual averaging time.

5.2 PSD CLASS II ANALYSIS

The maximum predicted SO₂, PM₁₀ and NO₂ PSD increment consumption from the screening analysis due to all PSD-affecting sources is presented in Table 5-3. Based on

the results of the screening analyses, refined modeling analyses were performed for SO₂ and PM₁₀. The refined modeling results are compared to the allowable PSD Class II increments in Table 5-4.

The maximum predicted SO₂ PSD increment consumption is 3.7, 83.4, and 404 µg/m³, respectively for the annual, 24-hour and 3-hour averaging times. These concentrations are all below the allowable PSD Class II increments of 20, 91, and 512 µg/m³, respectively, for these averaging times. It is noted that all of these maximums occur near the Seminole Electric power plant, and the impacts are primarily due to the power plant and not to G-P Palatka.

The maximum predicted PM₁₀ PSD annual increment consumption is less than zero (i.e., there is increment expansion near to the G-P Palatka facility). The maximum predicted PM₁₀ 24-hour average PSD increment consumption is 2.1 µg/m³. This concentration is well below the allowable PSD Class II 24-hour increment of 30 µg/m³. It is noted that this maximum occurs near the Seminole Power Plant, and the impacts are primarily due to the power plant and not to G-P Palatka.

The maximum predicted NO₂ PSD Class II increment consumption is 4.4 µg/m³, which is well below the allowable NO₂ increment of 25 µg/m³.

5.3 PSD CLASS I ANALYSIS

The maximum predicted SO₂ PSD increment consumption at the ONWR and WINWR PSD Class I areas due to all nearby PSD-affecting sources is compared to the allowable PSD Class I increments in Table 5-5.

The maximum predicted SO₂ PSD increment consumption at the ONWR and WINWR PSD Class I areas is 0.29, 7.0, and 30.3 µg/m³, respectively for the annual, 24-hour and 3-hour averaging times. The annual concentration is below the allowable PSD Class I increment of 2 µg/m³. However, the predicted concentrations are above the allowable

PSD Class I increments of 5 and 25 $\mu\text{g}/\text{m}^3$, respectively, for the 24-hour and 3-hour averaging times, respectively. Further analysis of these maximum impacts reveals that the Seminole Power Plant in Palatka, by itself, causes impacts greater than the 5 and 25 $\mu\text{g}/\text{m}^3$ allowable increments for the 24-hour and 3-hour averaging times, respectively. It is noted that the modeling analysis does not take into account any SO_2 half-life, which in this case may be appropriate for modeling long-range transport of SO_2 , due to the great distance to the Class I area. In addition, the total G-P Palatka facility contributes a maximum of only 0.4 $\mu\text{g}/\text{m}^3$ to any 24-hour impacts upon the Class I area.

The maximum predicted PM_{10} PSD increment consumption is less than zero for the annual averaging time, and is 0.06 $\mu\text{g}/\text{m}^3$ for the 24-hour averaging time. These concentrations are well below the allowable PSD Class I increments of 1 $\mu\text{g}/\text{m}^3$ and 5 $\mu\text{g}/\text{m}^3$, respectively, for the annual and 24-hour averaging times.

The maximum predicted NO_2 PSD increment consumption at the ONWR and WINWR PSD Class I areas is 0.42 $\mu\text{g}/\text{m}^3$ for the annual averaging time. This concentration is well below the allowable PSD Class I increment of 2.5 $\mu\text{g}/\text{m}^3$.

Table 5-1. Maximum Predicted Pollutant Impacts Due to All Future Modeled Sources, AAQS Screening Analyses

Averaging Time	Concentration ^a ($\mu\text{g}/\text{m}^3$)	Receptor Location ^o		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
SO₂				
Annual				
	19.1	90	686	84123124
	22.2	90	686	85123124
	20.1	90	686	86123124
	23.4	120	1100	87123124
	20.1	100	533	88123124
H2H 24-Hour				
	184	100	533	84042424
	202	100	533	85122524
	133	130	1100	86082424
	231	120	457	87013124
	204	120	457	88021324
H2H 3-Hour				
	568	110	457	84040615
	594	100	533	85122512
	530	110	457	86060212
	511	120	457	87122909
	575	120	457	88021312
PM₁₀				
Annual				
	2.8	90	686	84123124
	3.2	100	533	85123124
	3.1	100	533	86123124
	3.7	120	457	87123124
	3.3	110	457	88123124
H2H 24-Hour				
	22.9	120	457	84020624
	23.7	100	533	85021224
	19.8	110	457	86050224
	29.7	120	457	87013124
	26.5	110	457	88031424
NO_x				
Annual				
	12.5	110	457	84123124
	15.1	100	533	85123124
	14.1	110	457	86123124
	18.0	110	457	87123124
	16.2	110	457	88123124
CO				
H2H 8-Hour				
	1,751	130	457	84013124
	1,918	100	533	85020908
	1,703	80	838	86041208
	2,234	130	457	87040108
	1,823	100	533	88102308
H2H 1-Hour				
	6,198	140	457	84010301
	6,198	140	457	85120703
	6,220	150	457	86120501
	6,678	110	457	87081123
	6,168	140	457	88113002

^a Based on 5-year meteorological record, Jacksonville/Waycross, 1984-88^o Relative to TRS Incinerator Stack LocationNote: YYMMDDHH = Year, Month, Day, Hour Ending
H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 5-2. Maximum Predicted Pollutant Impacts Due to All Future Sources For Comparison to AAQS,
Refined Analysis

Averaging Time	Concentration ($\mu\text{g}/\text{m}^3$)			Receptor Location ^b		Time Period (YYMMDDHH)	Florida AAQS ($\mu\text{g}/\text{m}^3$)
	Total	Modeled	Background	Direction (degree)	Distance (m)		
<u>SO₂</u>							
Annual	29.5	23.5	6	122	1200	87123124	60
H2H 24-Hour	237	231	6	120	457	87013124	260
H2H 3-Hour	600	594	6	100	533	85122512	1300
<u>PM₁₀</u>							
Annual	29.7	3.7	26	120	457	87123124	50
H2H 24-Hour	56	29.7	26	120	457	87013124	150
<u>NO_x</u>							
Annual	46.0	18.0	28	110	457	87123124	100
<u>CO</u>							
H2H 8-Hour	5,456	2,234	3,222	130	457	87040108	10,000
H2H 1-Hour	12,011	6,678	5,333	110	457	87081123	40,000

^a Based on 5-year meteorological record, Jacksonville/Waycross, 1984-88

^b Relative to TRS Incinerator Stack Location

Note: YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 5-3 . Maximum Predicted PSD Class II Increment Consumption, Screening Analysis

Averaging Time	Concentration ^a ($\mu\text{g}/\text{m}^3$)	Receptor Location ^o		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
<u>SO₂</u>				
Annual	2.8	360	5125	84123124
	3.4	360	5125	85123124
	2.5	10	5000	86123124
	3.1	20	5000	87123124
	3.7	10	5000	88123124
H2H 24-Hour	72	30	5000	84092624
	79	60	4500	85052624
	71	10	5000	86082524
	63	40	5000	87042724
	75	360	5125	88111524
H2H 3-Hour	352	30	5000	84071012
	366	20	4500	85082312
	345	30	5000	86060312
	317	30	4000	87070615
	327	60	5000	88092815
<u>PM₁₀</u>				
Annual	<0	NA	NA	84123124
	<0	NA	NA	85123124
	<0	NA	NA	86123124
	<0	NA	NA	87123124
	<0	NA	NA	88123124
H2H 24-Hour	1.8	30	5000	84092624
	2.0	60	4500	85052624
	1.8	10	5000	86082524
	1.7	40	5000	87042724
	1.9	360	5125	88111524
<u>NO_x</u>				
Annual	3.8	120	457	84123124
	4.0	100	533	85123124
	3.9	110	457	86123124
	5.3	120	457	87123124
	4.4	110	457	88123124

^a Based on 5-year meteorological record, Jacksonville/Waycross, 1984-88

^o Relative to TRS Incinerator Stack Location

Note: YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years.

PSD = Prevention of Significant Deterioration

NA = Not Applicable

Table 5-4. Maximum Predicted Class II PSD Increment Consumption, Refined Analysis

Averaging Time	Concentration ($\mu\text{g}/\text{m}^3$)	Receptor Location ^b		Time Period (YYMMDDHH)	Allowable PSD Class II Increment ($\mu\text{g}/\text{m}^3$)
		Direction (degree)	Distance (m)		
<u>SO₂</u>					
Annual	3.7	10	5000	87123124	20
H2H 24-Hour	83.4	59	4800	85052624	91
	81.4	360	4900	88111524	
H2H 3-Hour	378	30	4800	84092612	512
	404	25	4800	85071818	
	345	30	5000	86060312	
<u>PM₁₀</u>					
Annual	<0	NA	NA	NA	17
H2H 24-Hour	2.1	59	4800	85052624	30
	2.0	359	4900	88111524	

^a Based on 5-year meteorological record, Jacksonville/Waycross, 1984-88

^b Relative to TRS Incinerator Stack Location

Note: YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years

NA = Not Applicable

PSD = Prevention of Significant Deterioration

Table 5-5. Maximum Predicted PSD Class I Increment at the Okefenokee and Wolf Island NWRs

Averaging Time	Concentration ^a ($\mu\text{g}/\text{m}^3$)	Receptor Location (UTM)		Time Period (YYMMDDHH)	Allowable PSD Class I Increment ($\mu\text{g}/\text{m}^3$)
		(m)	(m)		
SO₂					
Annual	0.29	370000	3383000	84123124	2
	0.11	370000	3383000	85123124	
	0.26	370000	3383000	86123124	
	0.12	370000	3383000	87123124	
	0.14	370000	3383000	88123124	
H2H 24-Hour	6.9	370000	3383000	84052324	5
	5.8	370000	3383000	85072724	
	5.5	374000	3383000	86061424	
	5.3	390000	3384000	87031824	
	7.0	378000	3382000	88032524	
H2H 3-Hour	30.3	378000	3382000	84080509	25
	26.1	390000	3395000	85072909	
	25.4	378000	3382000	86040409	
	27.1	391000	3390000	87111712	
	23.5	370000	3383000	88060606	
PM₁₀					
Annual	<0	NA	NA	84123124	1
	<0	NA	NA	85123124	
	<0	NA	NA	86123124	
	<0	NA	NA	87123124	
	<0	NA	NA	88123124	
H2H 24-Hour	0.04	383000	3382000	84060424	5
	0.04	378000	3382000	85062524	
	0.06	378000	3382000	86081324	
	0.04	383000	3382000	87080724	
	0.04	370000	3383000	88092024	
NO_x					
Annual	0.39	390000	3410000	84123124	2.5
	0.40	391000	3390000	85123124	
	0.41	392000	3400000	86123124	
	0.33	391000	3417000	87123124	
	0.42	390000	3410000	88123124	

^a Based on 5-year meteorological record, Jacksonville/Waycross, 1984-88

Note: YYMMDDHH = Year, Month, Day, Hour Ending

PSD = Prevention of Significant Deterioration

UTM = Universal Transverse Mercator

H2H = Highest, 2nd-Highest

NA = Not Applicable

APPENDIX A
DIRECTION-SPECIFIC BUILDING INFORMATION
USED FOR THE AIR MODELING ANALYSIS

'BPIP data for GA-PACIFIC PALATKA FUTURE - 5/27/99'

'ST'

'FEET' 0.3048

'UTMN' -34.0

12

'RB4 Precipitator' 1 0.0

4 85

-304 552

-304 682

-245 682

-245 552

'RB4 Building' 1 0.0

4 193.7

-228 569

-228 659

-124 659

-124 569

'Power House' 1 0.0

4 107.6

-83 533

-83 625

9 625

9 533

'Pulp Dryer 3' 1 0.0

4 84.5

496 -158

496 105

643 105

643 -158

'Pulp Dryer 5' 1 0.0

4 70.5

696 -158

696 148

791 148

791 -158

'Pulp Dryer 4' 1 0.0

4 73

791 -158

791 84

918 84

918 -158

'Warehouse complex 1' 1 0.0

4 62.67

485 -580

485 -169

1867 -169

1867 -580

'Warehouse Complex 2' 1 0.0

4 46.8

675 -950

675 -580

1527 -580

1527 -950

'#1 & #2 Machines, Storage' 1 0.0

4 71.16

211 327

211 739

443 739

443 327

'Kraft Converting & Storage' 1 0.0

4 60.75

211	739
211	1255
475	1255
475	739

'Kraft Warehouse & Multiwall' 1 0.0

6 56.7

559	886
559	1393
833	1393
833	1118
717	1118
717	886

'Digester' 1 0.0

4 62.2

211	95
211	127
475	127
475	95

10

'TRS'	'	0.0	250	0.00	0.00
'RB4'	'	0.0	230	-354.54	601.00
'SDT4'	'	0.0	206	-161.73	609.67
'LK4'	'	0.0	131	-123.00	-302.50
'PB4'	'	0.0	122	23.55	508.82
'PB5'	'	0.0	232	-90.71	459.23
'CB4'	'	0.0	232	-69.36	456.90
'PB6'	'	0.0	60	-28.97	489.96
'BLEACH'	'	0.0	118	557.09	183.92
'TO'	'	0.0	100	58.00	-52.50

0

DATE : 06/05/99

TIME : 23:44:01

BPIP data for GA-PACIFIC PALATKA FUTURE - 5/27/99

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 BPIP PROCESSING INFORMATION:
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The ST flag has been set for processing for an ISCST2 run.

Inputs entered in FEET will be converted to meters using
 a conversion factor of 0.3048. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local
 X-Y coordinate system as opposed to a UTM coordinate system.
 True North is in the positive Y direction.

Plant north is set to -34.00 degrees with respect to True North.

BPIP data for GA-PACIFIC PALATKA FUTURE - 5/27/99

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
 (Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
TRS	76.20	0.00	118.45	118.45
RB4	70.10	0.00	116.20	116.20
SDT4	62.79	0.00	121.92	121.92
LK4	39.93	N/A	0.00	65.00
PB4	37.19	0.00	121.79	121.79
PB5	70.71	0.00	121.92	121.92
CB4	70.71	0.00	121.92	121.92
PB6	18.29	0.00	121.92	121.92
BLEACH	35.97	0.00	64.39	65.00
TO	30.48	0.00	47.40	65.00

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00

SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	59.04
SO BUILDHGT PB4	59.04	59.04	59.04	59.04	59.04	32.80
SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	32.80
SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	59.04
SO BUILDHGT PB4	59.04	59.04	59.04	59.04	59.04	32.80
SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	32.80
SO BUILDWID PB4	39.65	39.17	37.50	34.68	45.75	29.58
SO BUILDWID PB4	34.29	37.95	40.47	41.75	41.77	37.50
SO BUILDWID PB4	34.68	73.63	74.74	33.99	37.02	38.93
SO BUILDWID PB4	39.65	39.17	37.50	34.68	45.75	29.58
SO BUILDWID PB4	34.29	37.95	40.47	41.75	41.77	37.50
SO BUILDWID PB4	34.68	73.63	74.74	33.99	37.02	38.93

SO BUILDHGT PB5	32.80	32.80	32.80	32.80	0.00	0.00
SO BUILDHGT PB5	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT PB5	59.04	59.04	59.04	59.04	32.80	32.80
SO BUILDHGT PB5	32.80	32.80	32.80	32.80	21.69	21.69
SO BUILDHGT PB5	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT PB5	59.04	59.04	59.04	59.04	32.80	32.80
SO BUILDWID PB5	39.65	39.17	37.50	34.68	0.00	0.00
SO BUILDWID PB5	42.80	37.95	40.47	41.75	41.77	40.52
SO BUILDWID PB5	38.03	34.39	33.54	37.39	37.02	38.93
SO BUILDWID PB5	39.65	39.17	37.50	34.68	132.28	130.20
SO BUILDWID PB5	44.92	37.95	40.47	41.75	41.77	40.52
SO BUILDWID PB5	38.03	34.39	33.54	37.39	37.02	38.93

SO BUILDHGT CB4	32.80	32.80	32.80	32.80	0.00	0.00
SO BUILDHGT CB4	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT CB4	59.04	59.04	32.80	32.80	32.80	32.80
SO BUILDHGT CB4	32.80	32.80	32.80	32.80	21.69	21.69
SO BUILDHGT CB4	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT CB4	59.04	59.04	32.80	32.80	32.80	32.80
SO BUILDWID CB4	39.65	39.17	37.50	34.68	0.00	0.00
SO BUILDWID CB4	42.80	37.95	40.47	41.75	41.77	40.52
SO BUILDWID CB4	38.03	34.39	74.74	33.99	37.02	38.93
SO BUILDWID CB4	39.65	39.17	37.50	34.68	132.28	130.20
SO BUILDWID CB4	44.92	37.95	40.47	41.75	41.77	40.52
SO BUILDWID CB4	38.03	34.39	74.74	33.99	37.02	38.93

SO BUILDHGT PB6	32.80	32.80	32.80	32.80	32.80	32.80
SO BUILDHGT PB6	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT PB6	59.04	32.80	32.80	32.80	32.80	32.80
SO BUILDHGT PB6	32.80	32.80	32.80	32.80	32.80	32.80
SO BUILDHGT PB6	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT PB6	59.04	32.80	32.80	32.80	32.80	32.80
SO BUILDWID PB6	39.65	39.17	37.50	34.68	45.75	37.44
SO BUILDWID PB6	34.29	37.95	40.47	41.75	41.77	40.52
SO BUILDWID PB6	38.03	73.63	74.74	33.99	37.02	38.93
SO BUILDWID PB6	39.65	39.17	37.50	34.68	45.75	37.44

'BPIP data for GA-PACIFIC PALATKA 1974 PSD BASELINE - 5/27/99'

'ST'

'FEET' 0.3048

'UTMN' -34.0

14

'RB4 Precipitator' 1 0.0

4 85

-304 552

-304 682

-245 682

-245 552

'RB4 Building' 1 0.0

4 193.7

-228 569

-228 659

-124 659

-124 569

'Power House' 1 0.0

4 107.6

-83 533

-83 625

9 625

9 533

'Pulp Dryer 3' 1 0.0

4 84.5

496 -158

496 105

643 105

643 -158

'Pulp Dryer 5' 1 0.0

4 70.5

696 -158

696 148

791 148

791 -158

'Pulp Dryer 4' 1 0.0

4 73

791 -158

791 84

918 84

918 -158

'Warehouse complex 1' 1 0.0

4 62.67

485 -580

485 -169

1867 -169

1867 -580

'Warehouse Complex 2' 1 0.0

4 46.8

675 -950

675 -580

1527 -580

1527 -950

'#1 & #2 Machines, Storage' 1 0.0

4 71.16

211 327

211 739

443 739

443 327

'Kraft Converting & Storage' 1 0.0

4 60.75

211	739
211	1255
475	1255
475	739

'Kraft Warehouse & Multiwall' 1 0.0

6 56.7

559	886
559	1393
833	1393
833	1118
717	1118
717	886

'Digester' 1 0.0

4 62.2

211	95
211	127
475	127
475	95

'No3 RB Bldg' 1 0.0

4 100

-99	179
-99	240
-65	240
-65	179

'No2 RB Bldg' 1 0.0

4 100

20	157
20	230
78	230
78	157

15

'RB1	'	0.0	250	48.21	196.66
'RB2	'	0.0	230	48.21	196.66
'RB3	'	0.0	206	-85.73	200.16
'RB4	'	0.0	230	-354.54	601.00
'SDT1	'	0.0	131	48.21	196.66
'SDT2	'	0.0	122	48.21	196.66
'SDT3	'	0.0	232	-85.73	200.16
'SDT4	'	0.0	206	-161.73	609.67
'LK1	'	0.0	232	19.52	-185.66
'LK2	'	0.0	60	3.17	-183.07
'LK3	'	0.0	118	-45.00	-263.00
'LK4	'	0.0	131	-123.00	-302.50
'PB4	'	0.0	122	23.55	508.82
'PB5	'	0.0	232	-90.71	459.23
'CB4	'	0.0	232	-69.36	456.90

0

DATE : 05/27/99

TIME : 13:17:36

BPIP data for GA-PACIFIC PALATKA 1974 PSD BASELINE - 5/27/99

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 BPIP PROCESSING INFORMATION:
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The ST flag has been set for processing for an ISCST2 run.

Inputs entered in FEET will be converted to meters using
 a conversion factor of 0.3048. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local
 X-Y coordinate system as opposed to a UTM coordinate system.
 True North is in the positive Y direction.

Plant north is set to -34.00 degrees with respect to True North.

BPIP data for GA-PACIFIC PALATKA 1974 PSD BASELINE - 5/27/99

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
 (Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
RB1	76.20	0.00	121.74	121.74
RB2	70.10	0.00	121.74	121.74
RB3	62.79	0.00	118.18	118.18
RB4	70.10	0.00	116.20	116.20
SDT1	39.93	0.00	121.74	121.74
SDT2	37.19	0.00	121.74	121.74
SDT3	70.71	0.00	118.18	118.18
SDT4	62.79	0.00	121.92	121.92
LK1	70.71	N/A	0.00	65.00
LK2	18.29	0.00	63.48	65.00
LK3	35.97	N/A	0.00	65.00
LK4	39.93	N/A	0.00	65.00
PB4	37.19	0.00	121.79	121.79
PB5	70.71	0.00	121.92	121.92
CB4	70.71	0.00	121.92	121.92

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission

limitations for a source can be found in Table 3.1 of the
GEP Technical Support Document.

BPIP (Dated: 95086)

DATE : 05/27/99

TIME : 13:17:36

BPIP data for GA-PACIFIC PALATKA 1974 PSD BASELINE - 5/27/99

BPIP output is in meters

SO BUILDHGT RB1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB1	30.48	30.48	30.48	30.48	59.04	59.04
SO BUILDHGT RB1	59.04	32.80	30.48	30.48	30.48	30.48
SO BUILDHGT RB1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDWID RB1	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID RB1	25.87	36.14	43.06	48.66	41.77	40.52
SO BUILDWID RB1	38.03	73.63	19.19	22.54	25.20	58.87
SO BUILDWID RB1	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID RB1	25.87	36.14	43.06	48.66	52.78	25.64
SO BUILDWID RB1	23.13	19.91	19.19	22.54	25.20	58.87
SO BUILDHGT RB2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB2	30.48	30.48	30.48	30.48	59.04	59.04
SO BUILDHGT RB2	59.04	32.80	30.48	30.48	30.48	30.48
SO BUILDHGT RB2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDWID RB2	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID RB2	25.87	36.14	43.06	48.66	41.77	40.52
SO BUILDWID RB2	38.03	73.63	19.19	22.54	25.20	58.87
SO BUILDWID RB2	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID RB2	25.87	36.14	43.06	48.66	52.78	25.64
SO BUILDWID RB2	23.13	19.91	19.19	22.54	25.20	58.87
SO BUILDHGT RB3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB3	30.48	30.48	30.48	30.48	30.48	59.04
SO BUILDHGT RB3	59.04	59.04	32.80	32.80	32.80	30.48
SO BUILDHGT RB3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT RB3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDWID RB3	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID RB3	25.87	36.14	43.06	48.66	52.78	39.42
SO BUILDWID RB3	38.03	34.39	74.74	33.99	37.02	58.87
SO BUILDWID RB3	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID RB3	25.87	36.14	43.06	48.66	52.78	17.46
SO BUILDWID RB3	15.09	12.25	11.63	14.55	17.03	58.87
SO BUILDHGT RB4	59.04	59.04	59.04	59.04	59.04	59.04

SO BUILDHGT RB4	59.04	59.04	59.04	59.04	25.91	25.91
SO BUILDHGT RB4	25.91	0.00	0.00	25.91	25.91	25.91
SO BUILDHGT RB4	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT RB4	59.04	59.04	59.04	59.04	30.48	25.91
SO BUILDHGT RB4	25.91	0.00	0.00	25.91	25.91	25.91
SO BUILDWID RB4	38.11	38.11	38.11	35.11	30.60	29.58
SO BUILDWID RB4	34.29	37.95	38.11	38.11	37.84	33.53
SO BUILDWID RB4	28.21	0.00	0.00	27.03	32.55	37.07
SO BUILDWID RB4	38.11	38.11	38.11	35.11	30.60	29.58
SO BUILDWID RB4	34.29	37.95	38.11	38.11	52.78	33.53
SO BUILDWID RB4	28.21	0.00	0.00	27.03	32.55	37.07

SO BUILDHGT SDT1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT1	30.48	30.48	30.48	30.48	59.04	59.04
SO BUILDHGT SDT1	59.04	32.80	30.48	30.48	30.48	30.48
SO BUILDHGT SDT1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT1	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDWID SDT1	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID SDT1	25.87	36.14	43.06	48.66	41.77	40.52
SO BUILDWID SDT1	38.03	73.63	19.19	22.54	25.20	58.87
SO BUILDWID SDT1	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID SDT1	25.87	36.14	43.06	48.66	52.78	25.64
SO BUILDWID SDT1	23.13	19.91	19.19	22.54	25.20	58.87

SO BUILDHGT SDT2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT2	30.48	30.48	30.48	30.48	59.04	59.04
SO BUILDHGT SDT2	59.04	32.80	30.48	30.48	30.48	30.48
SO BUILDHGT SDT2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT2	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDWID SDT2	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID SDT2	25.87	36.14	43.06	48.66	41.77	40.52
SO BUILDWID SDT2	38.03	73.63	19.19	22.54	25.20	58.87
SO BUILDWID SDT2	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID SDT2	25.87	36.14	43.06	48.66	52.78	25.64
SO BUILDWID SDT2	23.13	19.91	19.19	22.54	25.20	58.87

SO BUILDHGT SDT3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT3	30.48	30.48	30.48	30.48	30.48	59.04
SO BUILDHGT SDT3	59.04	59.04	32.80	32.80	32.80	30.48
SO BUILDHGT SDT3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDHGT SDT3	30.48	30.48	30.48	30.48	30.48	30.48
SO BUILDWID SDT3	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID SDT3	25.87	36.14	43.06	48.66	52.78	39.42
SO BUILDWID SDT3	38.03	34.39	74.74	33.99	37.02	58.87
SO BUILDWID SDT3	56.38	52.18	46.39	39.19	23.98	23.43
SO BUILDWID SDT3	25.87	36.14	43.06	48.66	52.78	17.46
SO BUILDWID SDT3	15.09	12.25	11.63	14.55	17.03	58.87

SO BUILDHGT SDT4	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT SDT4	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT SDT4	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT SDT4	59.04	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT SDT4	59.04	59.04	59.04	59.04	59.04	59.04

SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID LK4	0.00	0.00	0.00	0.00	0.00	0.00

SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	59.04
SO BUILDHGT PB4	59.04	59.04	59.04	59.04	59.04	32.80
SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	32.80
SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	59.04
SO BUILDHGT PB4	59.04	59.04	59.04	59.04	59.04	32.80
SO BUILDHGT PB4	32.80	32.80	32.80	32.80	32.80	32.80
SO BUILDWID PB4	39.65	39.17	37.50	34.68	45.75	29.58
SO BUILDWID PB4	34.29	37.95	40.47	41.75	41.77	37.50
SO BUILDWID PB4	34.68	73.63	74.74	33.99	37.02	38.93
SO BUILDWID PB4	39.65	39.17	37.50	34.68	45.75	29.58
SO BUILDWID PB4	34.29	37.95	40.47	41.75	41.77	37.50
SO BUILDWID PB4	34.68	73.63	74.74	33.99	37.02	38.93

SO BUILDHGT PB5	32.80	32.80	32.80	32.80	0.00	0.00
SO BUILDHGT PB5	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT PB5	59.04	59.04	59.04	59.04	32.80	32.80
SO BUILDHGT PB5	32.80	32.80	32.80	32.80	21.69	21.69
SO BUILDHGT PB5	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT PB5	59.04	59.04	59.04	59.04	32.80	32.80
SO BUILDWID PB5	39.65	39.17	37.50	34.68	0.00	0.00
SO BUILDWID PB5	42.80	37.95	40.47	41.75	41.77	40.52
SO BUILDWID PB5	38.03	34.39	33.54	37.39	37.02	38.93
SO BUILDWID PB5	39.65	39.17	37.50	34.68	132.28	130.20
SO BUILDWID PB5	44.92	37.95	40.47	41.75	41.77	40.52
SO BUILDWID PB5	38.03	34.39	33.54	37.39	37.02	38.93

SO BUILDHGT CB4	32.80	32.80	32.80	32.80	0.00	0.00
SO BUILDHGT CB4	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT CB4	59.04	59.04	32.80	32.80	32.80	32.80
SO BUILDHGT CB4	32.80	32.80	32.80	32.80	21.69	21.69
SO BUILDHGT CB4	25.91	59.04	59.04	59.04	59.04	59.04
SO BUILDHGT CB4	59.04	59.04	32.80	32.80	32.80	32.80
SO BUILDWID CB4	39.65	39.17	37.50	34.68	0.00	0.00
SO BUILDWID CB4	42.80	37.95	40.47	41.75	41.77	40.52
SO BUILDWID CB4	38.03	34.39	74.74	33.99	37.02	38.93
SO BUILDWID CB4	39.65	39.17	37.50	34.68	132.28	130.20
SO BUILDWID CB4	44.92	37.95	40.47	41.75	41.77	40.52
SO BUILDWID CB4	38.03	34.39	74.74	33.99	37.02	38.93



Georgia-Pacific Corporation

Palatka Pulp and Paper Operations
Packaged Products Division
P.O. Box 919
Palatka, Florida 32178-0919
Telephone (904) 325-2001

May 21, 1999

Mr. A. A. Linero, P.E.
Administrator, New Source Review Section
State of Florida
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

MAY 24 1999

**BUREAU OF
AIR REGULATION**

RE: Georgia-Pacific Corporation, Putnam County
Publication of Notice of Intent to Issue Permit to Construct ECF Bleach Plant
DEP File No. 1070005-006-AC (PSD-FL-264)

Dear Mr. Linero:

The aforementioned draft construction permit for construction of a new elemental chlorine free bleach plant at Georgia-Pacific's Palatka Mill and the associated Notice of Intent to Issue Permit have been received. The Notice was published in the Palatka Daily News on Friday, May 14, 1999. As required, the notarized proof of publication is attached.

Should you have any questions, please call me at 904-329-0918.

Sincerely,

Myra J. Carpenter
Environmental Superintendent

kb

Attachment

cc: M. J. Carpenter
B. T. Champion, Atlanta
R. R. Kaminskis
D. A. Spraley

cc: J. Arif
NED

EPA
NPS

PUBLIC NOTICE
PUBLIC NOTICE OF INTENT
TO ISSUE PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1070005-006-AC (PSD-FL-264)
Putnam County, Florida

STATE OF FLORIDA §
§
County of Putnam §

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration of Air Quality (PSD permit) to Georgia-Pacific Corporation. The permit is to construct a new elemental chlorine-free bleach plant and associated equipment. It will replace two bleach plants at the existing Palatka Mill in Putnam County, Florida. The project is being implemented to meet the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper

Industry (40 CFR 63, Subpart S). The modification will allow the facility to move forward to comply with the MACT regulations and to meet the compliance deadline. A Best Available Control Technology (BACT) determination was required for carbon monoxide (CO) pursuant to Rule 62-212.400, F.A.C.

The applicant's name and address are Georgia-Pacific Corporation, Post Office Box 919, Palatka, Florida 32178-0919. The Palatka Mill is located at North of CR 216 and West of US 17, Palatka, Putnam County, Florida.

Carbon monoxide emissions from the new bleach plant will be controlled through good combustion practices.

The net emissions increase due to the new bleach plant for PSD applicability purpose is summarized below (in tons per year).

Pollutant	Net Emissions Increase	PSD Significant Emission Rate
CO	153	100

An air quality impact analysis was conducted for carbon monoxide. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this "Public Notice of Intent to Issue PSD permit." Written comments and requests for a public meeting should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection.

The undersigned personally appeared before me, a Notary Public for the State of Florida, and deposes that the Daily News is a daily newspaper of general circulation, printed in the English language and published in the City of Palatka in said County and State; and that the attached order notice, publication and/or advertisements

Legal Number: 40,668

PUBLIC NOTICE PUBLIC NOTICE OF INTENT

was published in said newspaper 1 time with said publication being made on the following dates:

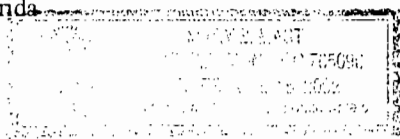
05/14/99

The Daily News has been continuously published as a daily newspaper and has been entered as second class matter at the post office at the City of Palatka, Putnam County, Florida, each for a period of more than one year next preceding the date of the first publication of the above described order, notice, and/or advertisements

Tracy Collins

Sworn to and subscribed before me this May 14, 1999 by Tracy Collins Classified Phone Sales Coordinator of the Daily News a Florida corporation, on behalf of the corporation

Mary B. Mast
Mary B. Mast, Notary Public,
State of Florida



Notary Seal
Seal of Office

- Personally known to me,
- Produced identification
- Did take an oath

5/12/99

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of Intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen (14) days of receipt of this notice of Intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name, and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any which shall be the address for service purposes during the course of the proceeding; and explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material facts. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301 of the Florida Administrative Code.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the petition taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of
Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive,
Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Department of
Environmental Protection
Northeast District Office
7825 Baymeadows Way,
Suite 200B
Jacksonville, Florida 32256-
7590
Telephone: 904/448/4300
Fax: 904/448-4366

The complete project file includes the Draft Permit, the application and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, Florida Statutes. Interested persons may contact the New Resources Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.
Legal No. 40668 5/14/99



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 12, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David Spraley, Vice President, Operations
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

Re: DEP File No. 1070005-006-AC (PSD-FL-264)
Palatka Mill
No. 3 Bleach Plant

Dear Mr. Spraley:

Enclosed is one copy of the Draft Permit, Technical Evaluation and Preliminary Determination, for the referenced project in Putnam County. The Department's Intent to Issue Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE" are also included.

The "Public Notice of Intent to Issue Permit" must be published as soon as possible in a newspaper of general circulation in the area affected. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section, at the above letterhead address. If you have any questions, please call Syed Arif at 850/921-9528.

Sincerely,

C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/sa

Enclosures

In the Matter of an
Application for Permit by:

Mr. David Spraley,
Vice President, Operations
Georgia-Pacific Corporation
Post Office Box 919
Palatka, FL 32178-0919

DEP File No. 1070005-006-AC
DRAFT Permit No. PSD-FL-264
Palatka Mill
No. 3 Bleach Plant
Putnam County

INTENT TO ISSUE PSD PERMIT

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration (PSD) of Air Quality (copy of Draft PSD Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Georgia-Pacific Corporation, applied on February 9, 1999, to the Department for a PSD permit to install a new elemental chlorine-free (ECF) bleach plant along with associated equipment and will replace two existing bleach plants at its existing Palatka Mill in Putnam County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a PSD permit and a determination of Best Available Control Technology for the control of carbon monoxide is required to conduct the work.

The Department intends to issue this PSD permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emissions units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue PSD Permit." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one of significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below.

The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850-488-0114; Fax 850/922-6979). The Department suggests that you publish the notice within thirty days of receipt of this letter. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S., to the office of the Department issuing the permit or other authorization. Failure to publish the notice and provide proof of publication may result in the denial of

the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue PSD permit." Written comments and requests for a public meeting should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

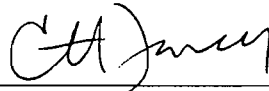
A person whose substantial interests are affected by the proposed permitting decision may petition for a administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.)

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.302, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Executed in Tallahassee, Florida.


C. H. Fancy, P.E., Chief
Bureau of Air Regulation

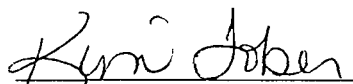
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE PSD PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT PSD permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5-12-99 to the person(s) listed:

David Spraley, Georgia-Pacific Corp. *
Joe Taylor, Georgia-Pacific Corp.
Rita Felton-Smith, DEP NE District
David Buff, Golder Associates
Gregg Worley, EPA Region IV
Ellen Porter, USFWS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to §120.52, Florida Statutes,
with the designated Department Clerk, receipt of
which is hereby acknowledged.


(Clerk)

(Date) 5-12-99

Z 333 618 146

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to	
David Spraley	
Street & Number	
GA - Pacific	
Post Office, State, & ZIP Code	
Palatka FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
5# 12-99	
1070005-006-AR	
P50-FL-264	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse

Write your name and address on the reverse of this form so that we can return this card to you.

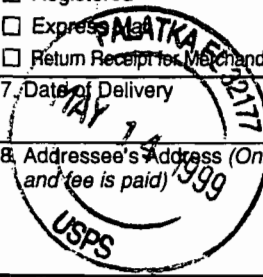
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

Following services (and extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to: David Spraley, VP GA - Pacific Corp P O Box 919 Palatka, FL 32178-0919	4a. Article Number Z 333 618 146
5. Received By: (Print Name)	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
6. Signature (Addressee or Agent) X <i>Michael [unclear]</i>	7. Date of Delivery APR 14 1999
	8. Addressee's Address (Only if requested and fee is paid)



Thank you for using Return Receipt Service.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1070005-006-AC (PSD-FL-264)
Putnam County, Florida

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration of Air Quality (PSD permit) to Georgia-Pacific Corporation. The permit is to construct a new elemental chlorine-free bleach plant and associated equipment. It will replace two bleach plants at the existing Palatka Mill in Putnam County, Florida. The project is being implemented to meet the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper industry (40 CFR 63, Subpart S). The modification will allow the facility to move forward to comply with the MACT regulations and to meet the compliance deadline. A Best Available Control Technology (BACT) determination was required for carbon monoxide (CO) pursuant to Rule 62-212.400, F.A.C.

The applicant's name and address are Georgia-Pacific Corporation, Post Office Box 919, Palatka, Florida 32178-0919. The Palatka Mill is located at North of CR 216 and West of US 17, Palatka, Putnam County, Florida.

Carbon monoxide emissions from the new bleach plant will be controlled through good combustion practices.

The net emissions increase due to the new bleach plant for PSD applicability purposes is summarized below (in tons per year).

<u>Pollutant</u>	<u>Net Emissions Increase</u>	<u>PSD Significant Emission Rate</u>
CO	153	100

An air quality impact analysis was conducted for carbon monoxide. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this "Public Notice of Intent to Issue PSD permit." Written comments and requests for a public meeting should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of

**NOTICE TO BE PUBLISHED
IN THE NEWSPAPER**

the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any which shall be the address for service purposes during the course of the proceeding; and explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material facts. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301 of the Florida Administrative Code.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the petition taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4366

The complete project file includes the Draft Permit, the application and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, Florida Statutes. Interested persons may contact the New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

GEORGIA-PACIFIC CORPORATION

Kraft Pulp Mill
Palatka, Putnam County

DEP File No. 1070005-006-AC
PSD-FL-264

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

May 10, 1999

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Georgia-Pacific Corporation
North of CR 216; West of US 17
Palatka, Florida 32177

Authorized Representative: Mr. David Spraley, V.P., Operations

1.2 Reviewing and Process Schedule

02-09-99: Date of Receipt of Application
03-09-99: DEP Completeness Request
03-10-99: G-P's 1st response to DEP's Completeness Request of 03-09-99
04-26-99: G-P's 2nd response to DEP's Completeness Request of 03-09-99.
04-26-99: Application complete
05-xx-99: Issue Intent

2. FACILITY INFORMATION

2.1 Facility Location

The Georgia-Pacific Corporation (G-P) Palatka pulp and paper mill facility is located North of County Road 216 and west of US 17, near Palatka, Putnam County. This site is approximately 110 kilometers from the Okefenokee National Wilderness Refuge, a Class I PSD Area. The UTM coordinates of this facility are Zone 17; 434.0 km E; 3283.4 km N.

2.2 Standard Industrial Classification Codes (SIC)

Major Group No.	26	Paper and Allied Products
Industry Group No.	2611	Pulp Mills
Industry Group No.	2621	Paper Mills

2.3 Facility Category

The Kraft pulp mill, located in Palatka, Florida and operated by G-P, consists of a batch digester system, brown stock washer system, multiple effect evaporator (MEE) system, condensate stripper system, recovery boiler and smelt tanks, lime kiln, tall oil plant, bleach plant, steam boilers, and other equipment to produce finished paper products from virgin wood.

The facility is classified as a major or Title V source of air pollution because emissions of at least one regulated air pollutant exceed 100 TPY. This industry is included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one regulated air pollutant, the facility is classified as a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than the listed significance levels require review per the PSD rules and a determination of Best Available Control Technology (BACT) per Rule 62-212, F.A.C. For the proposed changes, greater than significant

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

increases will occur for CO. As such, this pollutant is subject to review under the PSD permitting program.

3. PROCESS DESCRIPTION

G-P is proposing to replace the existing two bleach plants (Nos. 1 and 2 Bleach Plants) with a single new elemental chlorine-free (ECF) bleach plant (No. 3 Bleach Plant). In the basic ECF pulp bleaching process, chlorine dioxide is substituted for chlorine and/or sodium hypochlorite to bleach the pulp. ECF pulp bleaching can be used to bleach either softwood or hardwood pulp. ECF bleach plants of the design G-P will be installing typically bleach the pulp in three stages. The three stages consist of a D₁₀₀ stage (chlorine dioxide stage), an E_{OP} stage (caustic extraction with oxygen and peroxide), and a final D stage (chlorine dioxide stage), resulting in a D₁₀₀ (E_{OP}) D sequence. Equipment includes bleaching towers, washers, filtrate tanks, pumps, etc. Pulp to the bleach plant is usually supplied from a high density chest or washed stock chest for either hardwood or softwood pulp. Air emissions generated from the ECF bleaching process include chlorine, carbon monoxide (CO), volatile organic compounds (VOC), and hazardous air pollutants (HAPs). Total reduced sulfur (TRS) emissions are also potentially generated. An add-on wet scrubber, typically installed on bleach plants, provides control of chlorinated HAPs and some control of VOCs and other HAPs, but does little to control CO emissions.

4. PROJECT DESCRIPTION

This permit addresses the following emissions units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
036	Process	No. 3 Bleach Plant

The applicant proposes to replace the existing chlorine-based Nos. 1 and 2 Bleach Plants with a new ECF bleach plant (No. 3 Bleach Plant). The existing bleach plants use chlorine and sodium hypochlorite for bleaching, and these uses will be eliminated by the new bleach plant. The proposed modification will allow G-P to comply with the recently promulgated Maximum Achievable Control Technology (MACT) standards for the pulp and paper industry (commonly referred to as MACT I or the Cluster Rule) and the Best Available Technology (BAT) Effluent Guidelines. Since the proposed new bleach plant represents a major capital investment, G-P has made a business decision to install a bleach plant with a larger capacity than the existing bleach plants. This can be accomplished with a nominal increase in costs over and above the cost of simply replacing the existing bleach plant capacity. The proposed No. 3 Bleach Plant will be capable of bleaching up to 1,702 tons per day (TPD) of air-dried bleached pulp (ADBP) as a daily maximum, and 1,350 TPD ADBP as a maximum monthly average. The existing Nos. 1 and 2 Bleach Plants combined have a capacity of 1,152 TPD ADBP.

No other emissions unit at the facility will be affected by replacement of the existing bleach plants with the No. 3 Bleach Plant. No increase in total pulp production by the digester system at the facility will result from the proposed project.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The proposed project will result in an increase in CO and potentially an increase in TRS emissions, but a significant decrease in emissions of VOCs and HAPs. Potential emission increases of TRS are below the significant emission level for TRS per Table 62-212.400-2, F.A.C., and do not require PSD or non-attainment new source review. However, PSD review is required for CO since the increase in emissions, per the application, will increase by more than PSD significant levels.

Estimated emissions from the proposed project are shown below:

POLLUTANT	EXISTING EMISSIONS (Nos. 1 and 2 Bleach Plants)	PROPOSED EMISSIONS (No.3 Bleach Plant)	NET CHANGE IN EMISSIONS
CO	48.0 TPY	201.0 TPY	153.0 TPY
VOC	144.7 TPY	80.7 TPY	-64.0 TPY
TRS	1.2	9.0 TPY	7.8 TPY
HAPs	143.8	75.5 TPY	-68.3 TPY

5. RULE APPLICABILITY

The project is subject to the federal National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Pulp and Paper Facilities (40 CFR 63, Subpart S), incorporated by reference in Rule 62-204.800, F.A.C.

The proposed project is subject to permitting, preconstruction review, emissions limits and compliance requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Putnam County; an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for CO exceeds the significant emission rate given in Chapter 62-212, Table 62-212.400-2, F.A.C. PSD review requires an assessment of air quality impacts and a determination of Best Available Control Technology (BACT).

The emission units affected by this permit modification shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications
40 CFR 63, Subpart A	General Provisions for MACT Sources
40 CFR 63.445	Standards for Bleaching Systems
40 CFR 63.450	Standards for Enclosures and Closed-Vent Systems
40 CFR 63.453	Monitoring Requirements
40 CFR 63.454	Recordkeeping Requirements
40 CFR 63.455	Reporting Requirements
40 CFR 63.457	Test Methods and Procedures

6. SOURCE IMPACT ANALYSIS

6.1 Air Quality Analysis

6.1.1 Introduction

According to the application, the proposed project will increase emissions of carbon monoxide by more than PSD significant amounts. Carbon monoxide is a criteria pollutant and has national and state ambient air quality standards (AAQS) defined for it. There are no PSD increments for CO. The PSD regulations require the following air quality analyses for this project:

- A significant impact analysis for CO;
- An analysis of existing air quality for CO
- An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS (there is no PSD increment for CO). However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in *NRDC v. Thomas*, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the required analyses follows.

6.1.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific *de minimis* concentration. In addition, if EPA has not established an acceptable monitoring method for the specific pollutant, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that predicted CO impacts from the project is predicted to be less than the monitoring *de minimis* level. Therefore, preconstruction ambient air quality monitoring is not required for this pollutant.

**Maximum Project Air Quality Impacts for Comparison
to the Monitoring *de Minimis* Levels.**

Pollutant	Avg. Time	Max Predicted Impact (ug/m ³)	De Minimis Level (ug/m ³)	Impact Greater Than <i>de Minimis</i> ?
CO	8-hour	182	575	No

6.1.3 Models and Meteorological Data Used in the Air Quality Impact Analysis

The applicant and the Department used the EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model to evaluate the pollutant emissions from the proposed project. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms, such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a consecutive 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Jacksonville International Airport, Florida (surface data) and Waycross, Georgia (upper air data). The 5-year period of meteorological data was from 1984 through 1988. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

Since five years of data were used in ISCST3, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS. For determining the project's significant impact area in the vicinity of the facility and if there are significant impacts from the project on any PSD Class I area, the highest short-term predicted concentration were compared to the significant impact level.

6.1.4 Significant Impact Analysis

Initially, the applicant conducts modeling using only the proposed project's emissions changes. If this modeling shows significant impacts, further modeling is required to determine the project's impacts on the AAQS. The G-P facility is located in a PSD Class II area. A total of 236 receptors were used in the significant impact analysis. These receptors were placed along 36 polar radials spaced 10 degrees apart and centered on the existing TRS incinerator located at the facility. The innermost receptors along each radial were located on the plant property boundary. Additional receptors were located offsite along each radial at distances of 700, 1,100, 1,500, 2,000, 2,500, 3,000, 3,500, 4,000, and 5,000 meters from the modeling origin.

In addition, eleven discrete receptors were used to predict CO impacts at the two closest PSD Class I areas. Ten of the 11 receptors were located along the southern and eastern boundaries of the Okefenokee National Wilderness Refuge (ONWR) located approximately 111 kilometers (km) north-northwest of the facility. One additional receptor was located at the Wolf Island National Wilderness Refuge (WINWR), located approximately 150 km north of the facility.

For each pollutant subject to PSD and also subject to AAQS analyses, this modeling compare maximum predicted impacts due to the project with significant impact levels to determine whether significant impacts due to the project are predicted in the vicinity of the facility. The tables below summarize the results of this modeling. The results of the significant impact modeling indicate that there are no significant impacts predicted from the increase in emissions from this project. Therefore, no further modeling to demonstrate compliance with the AAQS was required.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Maximum Project Air Quality Impacts for Comparison to the PSD Significant Impact Levels

Pollutant	Averaging Time	Maximum Predicted Impact (ug/m ³)	Significant Impact Level (ug/m ³)	Significant Impact?
CO	8-hour	182	500	No
	1-hour	367	2,000	No

Because allowable PSD increments do not exist for CO, the Class I modeling analysis was performed only for the Air Quality Related Value (AQRV) assessment. The Class I modeling predicts very low CO impacts upon the Class I areas.

6.1.5 Compliance With AAQS and PSD Increments for Other Pollutants

Because a complete air quality impact analysis for the G-P Palatka facility has not been recently performed, the Department requested the applicant to perform a full AAQS and PSD Class II and Class I increment analysis for the facility for particulate matter (PM₁₀), sulfur dioxide (SO₂), and nitrogen oxides (NO_x). The requested analysis must be performed and submitted to the Department for approval prior to issuance of a final PSD permit for the No. 3 Bleach Plant.

6.2 Additional Impacts Analysis

6.2.1 Impact Analysis Impacts On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur from CO emissions as a result of the proposed project are predicted to be insignificant. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area near the G-P facility. An AQRV analysis was performed by the applicant for the Class I area by identifying the AQRV's for the Class I areas, and assessing potential impacts due to the project. Predicted CO impacts upon the Class I areas are very small, and no significant impacts on these areas are expected.

6.2.2 Impact On Visibility

A regional haze analysis is used to assess the potential for a significant increase in regional haze in the Class I areas due to this source's projected increase in emissions. Since the visibility criteria is not dependent upon CO emissions, the proposed project is predicted to have no adverse effects on visibility in the Class I area.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6.2.3 Growth-Related Air Quality Impacts

The proposed modification will not significantly change employment, population, housing or commercial/industrial development in the area to the extent that a significant air quality impact will result.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable State of Florida and federal air pollution regulations, provided the Department's BACT determination is implemented.

Syed Arif, P.E.
Cleve Holladay, Meteorologist

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PERMITTEE:

Georgia-Pacific Corporation
North of CR 216; West of US 17
Palatka, Florida 32177

Authorized Representative:
Mr. David Spraley, V.P., Operations

FID No.	1070005
PSD No.	PSD-FL-264
SIC No.	2611
Project:	No. 3 Bleach Plant
Expires:	April 15, 2001

PROJECT AND LOCATION:

Permit for the construction of the elemental chlorine-free (ECF) No. 3 Bleach Plant at the Georgia-Pacific facility in Palatka. The new bleach plant will replace two existing bleach plants (Nos. 1 and 2 Bleach Plants). The project is being implemented to meet the MACT regulations for the Pulp and Paper industry. The project is located at CR 216 and US 17, Palatka, Putnam County. UTM coordinates are Zone 17; 434.0 km E; 3283.4 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix BD BACT Determination
Appendix GC Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

DRAFT**SECTION I. FACILITY INFORMATION****FACILITY DESCRIPTION**

Georgia-Pacific Corporation operates a Kraft pulp mill in Palatka, Putnam County, Florida. The facility produces both unbleached and bleached paper products. The company has applied for the construction of the No. 3 Bleach Plant to replace the existing Nos. 1 and 2 Bleach Plants. The No. 3 Bleach Plant will be an elemental chlorine-free (ECF) bleach plant. The two existing bleach plants currently use chlorine, sodium hypochlorite and chlorine dioxide for bleaching. The new plant will substitute chlorine dioxide for chlorine in the bleaching process. The sodium hypochlorite stage in the existing bleach plants will also be eliminated in the new plant.

The new bleach plant is being proposed in order to comply with the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper industry (40 CFR 63, Subpart S) and the Best Achievable Technology (BAT) Effluent Guidelines. The final compliance date for the applicable part of these regulations is April 15, 2001. This permit will allow Georgia-Pacific to move forward to comply with the MACT regulations and the Effluent Guidelines to meet the compliance deadline.

As a result of the new bleach plant, increases in carbon monoxide (CO) and total reduced sulfur (TRS) emissions will occur. Emissions of volatile organic compounds (VOC) are expected to decrease. HAP emissions will be controlled to meet the requirements of 40 CFR 63 Subpart S.

REGULATORY CLASSIFICATION

The Georgia-Pacific facility is classified as a "Major or Title V Source" per Rule 62-210.200, F.A.C., because it has the potential to emit more than 100 tons per year of at least one regulated air pollutant.

This industry is included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one regulated pollutant, the facility is a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than the listed significance levels require review per the PSD rules and a determination of Best Available Control Technology (BACT) per Rule 62-212, F.A.C.

For the proposed changes, greater than significant increases will occur for CO. As such this pollutant is subject to review under the PSD permitting program.

DRAFT**PERMIT SCHEDULE:**

02-09-99: Date of Receipt of Application
03-09-99: DEP Completeness Request
03-10-99: G-P's 1st response to DEP's Completeness Request of 03-09-99
04-26-99: G-P's 2nd response to DEP's Completeness Request of 03-09-99.
04-26-99: Application complete

RELEVANT DOCUMENTS:

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Date of Receipt of Application: 02-09-99
- DEP Completeness Request: 03-09-99
- G-P's 1st response to DEP's Completeness Request: 03-10-99
- G-P's 2nd response to DEP's Completeness Request: 04-26-99
- Application complete: 04-26-99
- Technical Evaluation and Preliminary Determination 05-xx-99
- Best Available Control Technology determination (issued concurrently with permit)

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SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department's Northeast District Office, 7825 Baymeadows Way, Jacksonville, Florida 32256-7590. All applications for permits to construct or modify an emissions unit(s) *subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blair Stone Road (MS 5505), Tallahassee, Florida 32399-2400 (phone number 850/488-0114).
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [**Rule 62-4.160, F.A.C.**]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [**Rule 62-210.900, F.A.C.**]
5. Expiration: This air construction permit **shall expire on April 15, 2001** [**Rule 62-210.300(1), F.A.C.**]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the Department's Northeast District Office of any delays in completion of the project which would affect the startup day by more than 90 days. [**Rule 62-4.090, F.A.C.**]
6. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Northeast District Office [**Chapter 62-213, F.A.C.**]

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

The Specific Conditions listed in this section apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
036	No. 3 Bleach Plant

1. Unless otherwise indicated, the construction and operation of the above emission units shall be in accordance with the capacities and specifications stated in the application or in updated submittals. **[Rule 62-210.300, F.A.C.]**
2. The subject emissions unit shall comply with all applicable provisions of the 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart S. **[Rule 62-204.800 F.A.C.]**
3. The production rate of the No. 3 Bleach Plant shall not exceed 1,350 tons per day (TPD) of air-dried bleached pulp (ADBP) as a maximum monthly average, nor 1,702 TPD ADBP as a daily maximum. **[Rule 62-210.200, F.A.C.]**
4. The subject emission unit is allowed to operate continuously (8760 hours/year). **[Rule 62-210.200, F.A.C.]**
5. Carbon monoxide emissions from the No. 3 Bleach Plant shall be minimized to the extent practicable by efficient bleaching operations. Carbon monoxide emissions from the No. 3 Bleach Plant wet scrubber stack shall not exceed 46 pounds per hour and 201 tons per year. Initial and annual compliance tests will be conducted to demonstrate compliance with this emission limit. **[Rule 62-212.410, F.A.C.]**
6. Visible emissions from the No. 3 Bleach Plant wet scrubber stack shall not exceed 20% opacity. This visible emissions limit shall only be effective if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation. **[Rules 62-296.320 and 62-296.404(2)(b), F.A.C.]**
7. The control device used to reduce emissions of total chlorinated hazardous air pollutants (HAPs) from the No. 3 Bleach Plant shall:
 - (a) Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight;
 - (b) Achieve a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP; or
 - (c) Achieve a treatment device outlet mass emission rate of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of oven-dried pulp (ODP) **[40 CFR 63.445(c)(1)]**
8. Before this construction permit expires, the subject emissions unit shall be tested for compliance with the above control efficiency requirement for total chlorinated HAPs. For the

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duration of all tests the emission units shall be operating at permitted capacity. Permitted capacity is defined as at least 90 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than permitted capacity (i.e., 90% of the maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310, F.A.C.]

9. The Department's Northeast District office in Jacksonville shall be notified in writing at least 15 days prior to a compliance test. Written reports of the test results shall be submitted within 45 days of test completion. [Rule 62-297.310, F.A.C.]
10. The compliance test procedures shall be in accordance with EPA Reference Methods 1, 2, 3, 4, 9, 10 and 26A, as appropriate, as published in 40 CFR 60, Appendix A. 60, Appendix A. [Rules 62-204.800 and 62-297.310(7)(c), F.A.C.]
11. All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. [Rule 62-4.070(3), F.A.C.]
12. The permittee shall install, calibrate, maintain, and operate continuous monitoring devices which can be used to determine the pH or oxidation-reduction potential of the gas scrubber effluent, the gas scrubber vent gas inlet flow rate (or an option proposed by the permittee and approved by the Department prior to startup), and the gas scrubber liquid influent flow rate. The parametric monitoring values will be established during the initial compliance testing. [40 CFR 63.453(c) and (d); 63.453(n)]
13. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C.]
14. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
15. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Northeast District office by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C.]
16. The subject emissions unit shall be subject to the following:
 - Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C.]

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- Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C.]
 - Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. [Rule 62-210.700, F.A.C.]
 - In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
 - Prior to April 15, 2001, the permittee shall submit a startup, shutdown and malfunction plan for the No. 3 Bleach Plant as required under 40 CFR 63.6(e)(3).
[40 CFR 63.6(e)(3) and Rule 62-210.700, F.A.C.]
17. In order to document continuing compliance with Specific Condition Nos. 3, 5, 7 and 12, daily records shall be maintained. The records at a minimum shall contain the following:
[Rule 62-4.070(3), F.A.C.]
- Quantity of pulp processed through the No. 3 Bleach Plant, in air-dried bleached tons.
 - Scrubber parameters monitored per Specific Condition 12.
 - Within 6 months of startup of the No. 3 Bleach Plant, the permittee shall submit an Operation and Maintenance (O&M) Plan which sets forth the practices which are employed to result in efficient bleaching operations.
18. In order to reduce chloroform air emissions from the No. 3 Bleach Plant, the permittee shall meet the applicable effluent limitation guidelines and standards specified in 40 CFR Part 430, and use no chlorine or hypochlorite for bleaching in the No. 3 Bleach Plant.
[40 CFR 63.445(d)]

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Georgia-Pacific Corporation
No. 3 Bleach Plant
PSD-FL-264 / 1070005-006-AC
Palatka, Putnam County

Georgia-Pacific Corporation (G-P) has applied to install a new elemental chlorine-free (ECF) bleach plant (No. 3 Bleach Plant) to replace two existing bleach plants at its Palatka facility in Putnam County. The proposed modification will allow G-P to comply with the recently promulgated Maximum Achievable Control Technology (MACT) standards for the pulp and paper industry (commonly referred to as MACT I or the Cluster Rule) and the Best Available Technology (BAT) for Effluent Guidelines. The proposed bleach plant consists of bleaching towers, washers, tanks, and associated equipment. The proposed No. 3 Bleach Plant will be capable of bleaching up to 1,702 tons per day (TPD) of air-dried bleached pulp (ADBP) as a daily maximum and 1,350 TPD ADBP as a maximum monthly average.

The proposed project will result in an increase in carbon monoxide (CO) emissions and potential increases in total reduced sulfur (TRS) emissions, but a decrease in emissions of volatile organic compounds (VOCs) and emissions of hazardous air pollutants (HAPs). Emissions increases of TRS are below the significant emission level for TRS per Table 62-212.400-2, F.A.C. Therefore, PSD review is not required for this class of pollutants. However, PSD review is required for CO since the increase in emissions, per the application, is more than the PSD significance level.

The project is subject to Prevention of Significant Deterioration (PSD) review for CO in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). A Best Available Control Technology (BACT) determination is part of the review required by Rules 62-212.400 and 62-296, F.A.C. Air pollution control equipment will consist of efficient operation to minimize CO emissions from the No. 3 Bleach Plant.

PROCESS EMISSIONS

The applicant proposes the following emissions:

POLLUTANT	EXISTING EMISSIONS (Nos. 1 and 2 Bleach Plants)	PROPOSED EMISSIONS (No.3 Bleach Plant)	NET CHANGE IN EMISSIONS
CO	48.0 TPY	201.0 TPY	153.0 TPY
VOC	144.7 TPY	80.7 TPY	-64.0 TPY
TRS	1.2	9.0 TPY	7.8 TPY
HAPs	143.8	75.5 TPY	-68.3 TPY

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

DATE OF RECEIPT OF COMPLETE BACT APPLICATION:

April 26, 1999

BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212.400, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically infeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT EMISSION LIMITS PROPOSED BY APPLICANT:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
CO	Efficient bleaching operations	No actual test data; only other BACT determination for bleach plants	Efficient bleaching operations

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

BACT ANALYSIS

CARBON MONOXIDE (CO)

CO is a byproduct that is formed from the bleaching of Kraft pulp. CO is formed in the chlorine, caustic extraction, and chlorine dioxide bleaching sequences of the bleaching process. Until recently, it was not known how much CO formation could be expected from bleaching using up to 100% ClO₂ substitution (NCASI TB 760, 1998). Based on studies performed by NCASI, it has been postulated that CO formation from ClO₂ substitution occurs as a result of the synergistic reaction between ClO₂ and the lignin in the pulp. The results of the studies do not show a correlation between CO formation and percent ClO₂ substitution. However, when using 100% ClO₂ substitution, CO emissions appear to increase linearly with the total percent ClO₂ applied on the pulp. Therefore, it would appear that when bleaching using an ECF bleaching process (*i.e.*, 100% ClO₂ substitution), reducing the amount of ClO₂ applied to the pulp could reduce CO formation. This would suggest that CO emissions from the ECF bleaching process could be "controlled" by maintaining the percentage of ClO₂ applied to the pulp at minimum levels that would ensure proper bleaching of the pulp. Thus, ensuring efficient use of ClO₂ and efficient operation of the bleaching process will minimize CO emissions.

EPA's BACT Clearinghouse database shows only one BACT determination for CO emissions from a bleach plant. The determination was made by the Mississippi Department of Environmental Quality in September 1996 for Weyerhaeuser's Kraft bleach plant in Columbus (Permit No. 1680-00044, September 10, 1996). The final BACT determination was to control CO emissions by ensuring efficient operations of the bleach plant.

At the Department's request, G-P addressed additional control techniques for the reduction of bleach plant CO emissions. Specifically, G-P performed a feasibility and cost analysis for catalytic oxidation and thermal oxidation of CO.

Regenerative Catalytic Oxidation

Catalytic oxidation involves the use of a catalyst that reacts with pollutants in the gas stream and reduces them to compounds such as carbon dioxide and water. In order to render catalytic oxidation more effective, thermal oxidation using direct flame burners is often implemented in conjunction with catalytic methods. This also allows oxidation to occur at lower temperatures than thermal oxidation methods alone. This combination of control techniques is called a regenerative catalytic oxidizer (RCO). A cost analysis for an RCO that could be installed on the proposed No. 3 Bleach Plant wet scrubber was performed. The total estimated capital investment cost for a CO destruction efficiency of 95% is approximately \$1.6 million. The total annual cost is \$808,000/yr. Based on reduction of 191 TPY (201 TPY x 0.95 = 191 TPY) of CO, the total cost effectiveness is \$4,200 per ton of CO removed. It is noted that this cost may be low due to the fact that this technology has not previously been applied to a bleach plant at any other paper mill in the

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

United States. Therefore, actual costs associated with installation and operation may be higher than estimated. The total cost effectiveness, exceeding \$4,200 per ton of CO removed, is considered as economically infeasible for control of CO in this case.

In addition, since this technology has not been applied to bleach plants at other facilities, the feasibility for application of this technology is uncertain. Compounds that may be in the gas stream include TRS compounds that are not only corrosive, but can cause deposits to form on the equipment, in turn clogging and fouling the catalyst.

Thermal Oxidation

A thermal oxidizer is a technically feasible, although unproven, option for reducing CO emissions from bleach plant wet scrubber vent streams. The EPA background information document (BID) for the proposed Pulp and Paper Cluster Rule (EPA-453/R-93-050a; 1993) establishes that thermal oxidation is technically feasible and so an economic analysis was performed. The total annualized cost for the thermal oxidizer is estimated at \$1,500,000/yr. For a CO destruction of 191 TPY, the cost effectiveness is \$7,850 per ton of CO removed. Therefore, the thermal oxidizer option is considered to be economically infeasible. The EPA, in determining MACT standards for bleach plants, dismissed thermal oxidation on the basis of economic impacts as well.

Conclusion

Given the fact that RCO and thermal oxidation are not proven technically on bleach plants and the relatively high cost per ton of CO removed, the use of add-on control equipment to control CO emissions from the proposed bleach plant is considered economically infeasible. The Department considers the best method to control CO emissions are through the use of best operational practices. This was the control method recommended for the only other bleach plant PSD/BACT evaluation listed in the EPA's BACT/LAER Clearinghouse database.

BACT DETERMINATION BY THE DEPARTMENT:

CARBON MONOXIDE (CO)

Based on the information provided by the applicant and other information available to the Department, BACT is "efficient bleaching operations" as a work practice to minimize CO emissions from the proposed No. 3 Bleach Plant. The following emission limits are established for the No. 3 Bleach Plant:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
CO	46 lb/hr and 201 TPY	Per application	Efficient bleaching operations

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

COMPLIANCE

Compliance with the work practice standard shall be demonstrated by submission and Department approval of an Operation and Maintenance (O&M) Plan for the No. 3 Bleach Plant. The O&M Plan shall set forth the practices G-P will employ to result in efficient bleaching operations. An initial and annual stack test of the No. 3 Bleach Plant wet scrubber stack for CO emissions shall be conducted in accordance with the EPA Reference Method 10 as contained in 40 CFR 60, Appendix A.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Syed Arif, P.E., Permit Engineer
Department of Environmental Protection
Bureau of Air Regulation - MS 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

Approved By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

Date:

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]


The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (*X*)
 - (b) Determination of Prevention of Significant Deterioration (*X*); and
 - (c) Compliance with New Source Performance Standards (*X*).
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Memorandum

Florida Department of
Environmental Protection

TO: Clair Fancy

FROM: Syed Arif 

DATE: May 11, 1999

SUBJECT: Georgia-Pacific Palatka Mill
PSD-FL-264 New Bleach Plant

Attached is the Public Notice and draft permit modification to install a new elemental chlorine-free bleach plant along with associated equipment. It will replace two existing bleach plants. The project is being implemented to comply with the MACT regulations for the pulp and paper industry. The modification will allow the facility to meet the compliance deadlines as outlined in the MACT regulations.

A Best Available Control Technology determination was required for carbon monoxide pursuant to Rule 62-212.400, F.A.C. CO emissions will be controlled through good combustion practices.

I recommend your approval and signature.

SA/a

Attachments



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

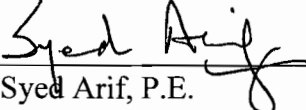
P.E. Certification Statement

Permittee:
Georgia-Pacific Corporation
Palatka Mill

DEP File No. 1070005-006-AC
Permit No. PSD-FL-264

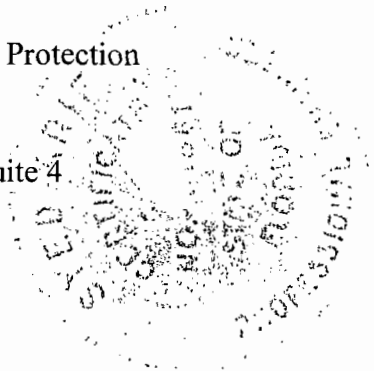
Project type: Air Construction Permit for a new elemental chlorine-free bleach plant with associated equipment. The project is being implemented to meet the MACT regulations for the pulp and paper industry (40 CFR 63, Subpart S). CO emissions will be minimized by good combustion practises.

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).


Syed Arif, P.E.
Registration Number: 51861

5/11/99
Date

Department of Environmental Protection
Bureau of Air Regulation
New Source Review Section
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (850) 488-0114
Fax (850) 922-6979



"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



April 24, 1999

9737574-0500

Florida Department of Environmental Protection
New Source Review Section Bureau of Air Regulations
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

APR 26 1999

BUREAU OF
AIR REGULATION

Attention: Syed Arif, P.E.

RE: GEORGIA-PACIFIC CORPORATION
NO. 3 BLEACH PLANT - PSD PERMIT APPLICATION
ADDENDUM NO. 2

1070005-006-AC
PSD-FI-264

Dear Mr. Arif:

On behalf of Georgia Pacific Corporation (G-P), Golder Associates Inc. (Golder) is submitting additional information as an addendum to the No. 3 Bleach Plant PSD permit application submitted in early February. This information supplements Golder's Addendum No. 1, dated March 8, 1999, sent in response to a meeting with the Florida Department of Environmental Protection (FDEP) held in late February. The FDEP also issued a letter dated March 9 regarding issues stemming from review of G-P's construction permit application for the proposed No. 3 Bleach Plant. This letter addresses Comment 2 of the FDEP's letter, since Comments 3, 4, and 5 have already been addressed in Golder's March 8th submittal. G-P's response to Comment 1 will be submitted in the near future.

The FDEP has indicated that the BACT analysis for carbon monoxide (CO) is incomplete. The FDEP has requested that G-P address additional control techniques for the reduction of bleach plant CO emissions. Specifically, the FDEP has requested that G-P perform a feasibility and cost analysis, as necessary, for catalytic oxidation and thermal oxidation of CO. Typically, thermal oxidation control methods are more expensive than catalytic oxidation methods due to the high temperatures at which thermal oxidizers operate and the associated fuel cost. Therefore, the feasibility and cost analysis for catalytic oxidation was reviewed first.

Regenerative Catalytic Oxidation

Catalytic oxidation involves the use of a catalytic material that reacts with pollutants in the gas stream and reduces them to compounds such as carbon dioxide and water. In order to render catalytic oxidation more effective, thermal oxidation using direct flame burners is often implemented in conjunction with catalytic methods. This also allows oxidation to occur at lower temperatures than thermal oxidation methods alone. This combination of control techniques is called a regenerative catalytic oxidizer (RCO). The cost analysis for an RCO that could be installed on the exhaust of the proposed No. 3 Bleach Plant wet scrubber is presented in Table 1.

The cost analysis includes a new stack equal to the height of the current bleach plant wet scrubber stack. It also accounts for all ductwork necessary to connect the control device, the installation, startup and testing, and operation and maintenance costs. The total estimated capital investment cost for a CO destruction efficiency of 95% is approximately \$1.6 million. The total annual cost is \$808,000/yr. Based on reduction of 191 TPY of CO, the total cost effectiveness is \$4,200 per ton of CO emitted. It is noted that this cost may be low due to the fact that this technology has not previously been applied to a bleach plant at any other paper mill in the United States. Therefore, actual costs associated with installation and operation may be higher than shown in Table 1. In any event, the total annual cost exceeding \$800,000/yr is considered as economically infeasible for control of a pollutant (CO) that is not a concern in regards to pulp and paper mills and environmental impacts of the CO emissions are low.

In addition to the cost analysis, technical feasibility was considered. Since this technology has not been applied to bleach plants at other facilities, the feasibility for application of this technology is uncertain. For instance, the gas stream will contain pollutants such as chlorine and chlorine dioxide which, in the presence of water vapor from the wet scrubber, will create a very corrosive environment. Even though the shell of the unit was designed with stainless steel, corrosion of the catalyst is likely to occur. Additional pollutants that may be in the gas stream include total reduced sulfur (TRS) compounds which can not only be corrosive, but can also cause deposits to form on the equipment, in turn clogging and fouling the catalytic mechanism.

A feasibility and economic analysis for the control of CO emissions from pulp and paper facilities was presented in a paper given at the TAPI 1997 Environmental Conference and Exhibit. A copy of the paper is attached for reference. The paper examines the feasibility of both catalytic and thermal oxidation control technologies for the control of CO emissions. The paper concludes that the use of catalytic oxidation is infeasible for similar reasons as those given in the preceding paragraph. Since catalytic oxidation was found to be infeasible, the paper presented an analysis for thermal oxidation.

Thermal Oxidation

Instead of relying on vendor quotes for control equipment, the TAPPI paper cited above paper references the background information document (BID) for the proposed pulp and paper cluster rule (EPA-453/R-93-050a; 1993). The relevant portion of the BID is attached for reference. The BID establishes that thermal oxidation is technically feasible and so an economic analysis is performed for a generic case. The generic case assumes that the bleach plant capacity is 1,000 air dried tons of bleached pulp (ADTBP) per day, maximum bleach plant CO emissions from bleaching operations are 1.07 lb/ADTBP, and that the nearest space available for installation of a new thermal oxidizer is 1,000 ft away from the bleach plant.

Based on the fact that the parameters are relatively similar to G-P's proposed No. 3 Bleach Plant, a cost comparison was performed to determine the economic feasibility of using thermal oxidation to control bleach plant CO emissions at G-P. Since the BID costs were established for a thermal oxidizer capable of 51,400 scfm and G-P would require a unit sized at approximately 20,000 scfm, an appropriate cost was determined from the ratio of unit

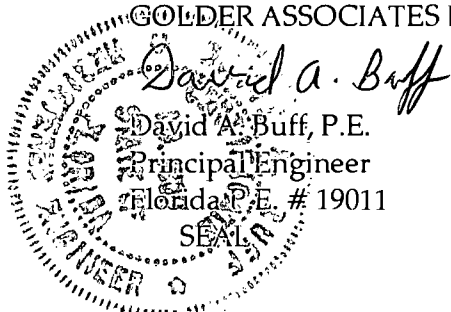
sizes. The total annualized cost for the 51,400 scfm thermal oxidizer in the BID is \$3,840,000. Using the unit size ratio, the annualized cost for a 20,000 scfm unit at G-P would be $(20,000 \text{ scfm} + 51,400 \text{ scfm} * \$3,840,000)$ approximately \$1,500,000/yr. For a CO destruction of 191 TPY, the cost effectiveness is \$7,850 per ton of CO removed. Although this is a rough estimate, it shows that even though the thermal oxidizer may be technically feasible for controlling emissions from G-P's proposed No. 3 Bleach Plant, it is not economically feasible. The EPA, in determining MACT standards for bleach plants, dismissed thermal oxidation on the basis of economic impacts. Since BACT is considered to be less stringent than MACT, thermal or catalytic oxidation should not be imposed on G-P's proposed bleach plant.

Given the fact that thermal oxidation is not proven technically on bleach plants and the relatively high cost per ton of CO removed, the use of add-on control equipment to control CO emissions from the proposed bleach plant is rejected. G-P considers that the best method to control CO emissions is through the use of best operational practices. This was the control method recommended for the only other bleach plant PSD/BACT evaluation listed in the EPA's BACT/LAER Clearinghouse database.

If you have any questions concerning this submittal, please contact me at (352)-336-5600 ext. 545.

Sincerely,

GOLDER ASSOCIATES INC.



PW/jkk

Enclosures

- cc: Al Linero, FDEP Tallahassee
- Chris Kirtis, FDEP NE District
- Joe Taylor, G-P
- Paul Wesson, Golder
- Tammy Wyles, G-P

cc:
EPA
NPS

Table 1. Cost Effectiveness for Using an RCO to Control CO Emissions From Proposed ECF Bleach Plant, Georgia Pacific, Palatka FL

Cost Items	Cost Factors	Cost (\$)	Cost (\$)
		90% removal	95% removal
DIRECT CAPITAL COSTS (DCC):			
(1) Purchased Equipment Cost			
(a) Basic Equipment/Services	Based on Vendor Quote	412,000	427,250
(b) New Stack (118 ft total)	Based On Cost Control Manual Ch. 10	159,121	159,121
(c) Ductwork - 240 feet	Based On Cost Control Manual Ch. 10	32,417	32,417
(d) Structural Support (a)	0.1 x (1a..1c)	60,354	61,879
(e) Instrumentation & Controls	Based on Vendor Quote	included	included
(f) Exhaust Fan	Based on Vendor Quote	included	included
(g) Freight (a)	0.05 x (1a..1f)	33,195	34,033
(h) Sales Tax (Florida)	0.06 x (1a..1g)	<u>41,825</u>	<u>42,882</u>
(i) Subtotal	(1a..1h)	738,912	757,582
(2) Direct Installation	0.30 x (1i)	295,565	303,033
Total DCC:	(1i) + (2)	1,034,476	1,060,615
INDIRECT CAPITAL COSTS (ICC): (a)			
(3) Indirect Installation Costs			
(a) Engineering	(0.1) x (DCC)	103,448	106,061
(b) Construction & Field Expenses	(0.05) x (DCC)	51,724	53,031
(c) Construction Contractor Fee	(0.10) x (DCC)	103,448	106,061
(d) Contingencies (b)	(0.40) x (DCC)	258,619	265,154
(4) Other Indirect Costs			
(a) Startup	Based on Vendor Quote	included	included
(a) Testing	(0.01) x (DCC)	10,345	10,606
(b) Working Capital	30-day DOC	<u>33,545</u>	<u>34,128</u>
Total ICC:	(3) + (4)	561,128	575,042
TOTAL CAPITAL INVESTMENT (TCI):	DCC + ICC	1,595,604	1,635,657
DIRECT OPERATING COSTS (DOC): (a)			
(1) Operating Labor			
Operator	\$22/hr; 1,460 hr/yr	32,120	32,120
Supervisor	15% of operator cost	4,818	4,818
(2) Maintenance			
Labor	Equivalent to Operating Labor	36,938	36,938
Materials	Equivalent to Maintenance Labor	36,938	36,938
(3) Utilities			
(a) Electricity	\$0.059/kWh; 26.7 kW; 8,760 hr/yr	13,800	13,800
(b) Natural Gas	6 MMBtu/h; 8,760 hr/yr; \$4.736/MMBtu	248,924	248,924
(4) Chemicals and Materials			
Catalyst Replacement	Once per 2 yrs @ \$58,000 for 90% and \$72,000 for 95%	<u>29,000</u>	<u>36,000</u>
Total DOC:	(1) + (2) + (3) + (4)	402,538	409,538
INDIRECT OPERATING COSTS (IOC): (b)			
(7) Overhead	60% of oper. labor & maintenance	66,488	66,488
(8) Property Taxes	1% of total capital investment	15,956	16,357
(9) Insurance	1% of total capital investment	15,956	16,357
(10) Administration	2% of total capital investment	<u>31,912</u>	<u>32,713</u>
Total IOC:	(7) + (8) + (9) + (10)	130,313	131,915
CAPITAL RECOVERY COSTS (CRC):	CRF of 0.1627 times TCI (10 yrs @ 10%)	259,605	266,121
ANNUALIZED COSTS (AC):	DOC + IOC + CRF	792,455	807,574
UNCONTROLLED CO EMISSIONS (TPY) (c):		201	201
TOTAL VOC REMOVED:		181	191
COST EFFECTIVENESS:	\$ per ton of CO Removed	4,381	4,229

Vendor: Anguil

Notes:

(a) Based on Cost Control Manual Ch. 3

(b) 40% installation cost chosen due to RCO's have never been used for this application.

(c) Maximum potential emissions, based on NACASI Technical Bulletins and Manufacturer's design data.

TAB1RCO

4/21/99

PERMITTING CARBON MONOXIDE EMISSIONS FROM BLEACHING OPERATIONS AT PULP AND PAPER FACILITIES

S. Andrew Keeley
Environmental Engineer
BE&K Environmental Co.
Norcross, GA 30092
USA

Kenneth D. Hiltgen
Southeast Regional Mgr.
BE&K Environmental Co.
Norcross, GA 30092
USA

John Orynowka
Director of Energy and Air Programs
Temple Inland Forest Products Corporation
Diboll, TX
USA

ABSTRACT

Recent studies indicate that bleaching operations at pulp and paper facilities are major sources of carbon monoxide (CO) emissions. Some of these studies suggest a direct link between emissions of CO and the use of chlorine dioxide (ClO₂) substitution in the bleaching process, which may be required under the cluster rule. In most mills this increase in CO is significant enough to trigger a prevention of significant deterioration (PSD) review. This paper addresses the impact the CO emissions will have on PSD permitting, and a preliminary determination of Best Achievable Control Technology (BACT) for the control of CO from bleaching operations.

DISCUSSION

The release of dioxins and furans in the wastewater streams leaving bleaching operations at pulp and paper mills have raised environmental concerns in recent years. Partly in response to these concerns the industry has made a move towards elemental chlorine free (ECF) bleaching and total chlorine free (TCF) bleaching. Chlorine dioxide (ClO₂) is often substituted for chlorine as part of these new technologies. By applying ClO₂ substitution technologies, pulp and paper mills are able to reduce or eliminate the amount of chlorine used in the bleaching operation and thereby lower the overall impact on the waste water stream. Commonly, the waste water stream from these alternate bleaching operations are non-detectable for both dioxins and furans.

However, the ClO₂ substitution technologies have been linked to an increase in the amount of CO present in the off gases from the bleaching process.

CO testing at several pulp mills has been conducted by the

National Council of the Paper Industry for Air and Stream Improvement (NCASI). The testing results ranged from 0.089 to 1.073 lb CO / air dried tons bleached pulp (ADTBP) and averaged 0.83 lb CO / ADTBP. The testing has also indicated that there is a direct relationship between CO emissions and the percent of chlorine dioxide (ClO₂) substitution. As the percent substitution increases so does the amount of CO emissions.

IMPACT ON PSD REVIEWS

These emissions are significant enough to impact the permitting of a new fiberline. For example, if a 1,000 ADTBP/day bleach plant emits the average tested CO of 0.83 lb CO / ADTBP, this would equate to 151 tons of CO emissions from the fiberline operation per year. Any new or modified emissions sources which emit more than 100 tons CO/year are required to go through a PSD review.

Therefore, new or modified fiberlines of this size (roughly 660 ADTBP/day or greater) which are applying substitution technology will probably be required to go through the PSD application process. The exact size determination would depend on the amount of substitution as well as other factors, including the bleaching sequence used in the specific situation. The PSD review process requires completing a Best Achievable Control Technology (BACT) analysis and air quality modeling.

BACT for CO Emissions from Fiberlines

Approach to determining BACT. The regulatory agencies consider BACT an emission limit rather than a technology. Any control device that results in the agreed upon emission limit can, potentially, be defined as BACT. BACT determinations were made for CO emissions from bleach plants utilizing EPA's "top-down" approach. This method compares demonstrated control of emission rates for similar units in similar applications, with the most restrictive rate taken as the standard for comparison. If the owner proposes an emission factor for the new equipment that is at least as low as the standard then the analysis is complete. If a higher emissions factor is proposed for implementation, then it must be justified by overriding economic and/or technological considerations. Only those emissions levels that have been clearly demonstrated in practice are considered for comparison. It was never EPA's intent for BACT to be based upon emerging technologies or unsubstantiated vendor claims that have not yet been demonstrated.

Because CO emissions are linked with the use of chlorine dioxide, the possibility of not making a process change and staying with chlorine bleaching was considered. However, the benefits of reducing the dioxins and furans in the waste water stream far outweigh the possible negative impacts of an increase in CO emissions from the use of chlorine substitution technology. Also, pending legislature (Cluster Rule) will likely require the new

bleaching sequence. Therefore, the feasibility of an add on control device to control CO emissions was then evaluated.

Several resources were used to determine BACT for the control of CO from fiberline operations. These included discussions with pulp and paper mills, a review of the BACT/LAER Information System (BLIS) to determine what levels were being achieved by others in industry, a review of industry association testing data (NCASI data), and discussions with engineers and chemists involved in the design of bleaching systems.

Proposed BACT. Due to the wide range of CO emissions seen, it is unlikely that a single BACT can be fairly applied to all the various bleaching sequences in the pulp and paper industry. Additionally, with the limited data it will be difficult to accurately predict the expected CO emissions. It is therefore recommended that facilities propose high conservative values in order to insure meeting their proposed BACT emission rate. Facilities will therefore be required to make technical or economic arguments against additional control. The following is a discussion of the viable control options and their cost implications.

Technology Review. Because the bleach technology is new, little information is available to be used in the determination of BACT for the operation. The BLIS system had three bleach plants listed for chlorine, chlorine dioxide, and chloroform but included no references to CO emissions.

The methods considered for CO control from the bleach plants were thermal oxidation through incineration to further oxidize the CO into CO₂ or the use of platinum catalysts to convert CO into CO₂. The incineration of the gases could be accomplished in an existing combustion unit or a dedicated incinerator.

Platinum catalysts were eliminated as technically infeasible. The platinum catalyst requires the gas temperature to be in excess of 500 F and typical exhaust streams from bleaching operations fall well below this level. Table I summarizes the options considered and the critical factors for each. Table II summarizes the major disadvantages and benefits associated with the two technically feasible options.

Economic Impact. Next, an economic analysis was conducted for each of the technologically viable control options. The economic argument addressed the capital investment for equipment, operational costs, administrative, taxes, maintenance, and all other costs associated with the proposed control systems.

The EPA has previously considered the economic impact of the incineration of emissions from bleach plants at pulp and paper mills. This analysis was presented in a document entitled "Pulp, Paper, and Paperboard Industry - Background Information for Proposed Air Emission Standards" - EPA-453/R-93-050a. In the document, an economic analysis was performed to determine the

costs associated with the incineration of emissions from bleach plants. The analysis included the option of installing a dedicated incinerator or incinerating the gases in an existing combustion unit.

These estimates were developed as part of a cost benefit analysis to determine if VOC emissions from bleaching operations should be controlled. Though not intended for the control of CO, this study was utilized because it was felt that the same technologies being considered (incineration) could be applied. Since its completion, this cost benefit analysis has been criticized for underestimating the costs associated with applying these technologies. Because the projected costs generated are thought to be underestimated, the conclusions reached by this study would be conservative.

The standardized costs which were presented by the EPA would need to be modified in order to match the estimations to the specific situation at a mill. The ductwork lengths required from the bleach plant scrubber to the incinerator would need to be determined. The cost estimates for the ductwork in the EPA document were converted to a \$/ft basis for comparison. This relationship was assumed to be a constant relationship regardless of length. This assumption was made for the total capital investment (TCI) as well as the total annual costs (TAC).

It is suspected that the temperatures and retention time that the gas stream would be subjected to in a large hog fuel or coal boiler would be sufficient to convert the CO into CO₂, but an exact efficiency is not known. A 95 % CO control efficiency was assumed for the BACT analysis for both the dedicated incinerator and the existing combustion unit.

In order to estimate the possible costs associated with the application of the two proposed control options, a typical mill configuration was considered. The specific layout and type of the mill are as follows:

- Kraft Pulp and Paper Facility
- Applying ClO₂ Substitution Technologies
- Bleach Plant Capacity of 1,000 ADTBP/day
- Access to Natural Gas
- Estimated 1000 feet from the existing Bleach Plant Scrubber to the nearest Operational Boiler
- Maximum CO emissions from the bleaching operation of 1.07 lb/ADTBP
- 4 stage bleaching with 3 emission points per stage (washers, towers, seal tanks)
- Estimated 1,000 feet to nearest available space for installation of a combustion unit.

The cost value at which state agencies generally consider projects economically reasonable is less than 3,000 \$/ton pollutant removed. The EPA BID document estimated the total annual costs (TAC) for the ducting of the vents from the sample bleach plant to

an existing combustion device to be \$650,000. This equates to an annualized cost of \$3,504 per ton of CO controlled for the example mill. The document also estimated the TAC for ducting the bleach plant vents to a new incinerator to be \$3,480,000. This would equate to an annualized cost of \$18,759 per ton of CO controlled. Both options exceed what is presently considered economically reasonable and would therefore not be required to be applied.

The value at which a project is considered reasonable varies from state agency to state agency and can be effected by more recent applications submitted to the agency. It should be noted that the PSD regulations do not allow for the modification of this value from pollutant to pollutant. Even though CO is probably the PSD pollutant of least concern with state agencies, this can not be considered when determining if add on control technology is economically reasonable.

Air Quality Modeling

The second stage of a PSD application is the completion of the air quality modeling analysis. The facility will therefore be required to model the increase in CO emissions from a bleach plant to determine the impact the increased emissions will have on the air quality. The first step is to complete a PSD screen analysis. This analysis compares the CO emissions before and after the completion of the proposed construction. In this case it would apply to the construction of a new bleach plant or the reconstructing of an existing bleach plant.

The modified or new emission units would be modeled before and after the construction in order to determine the increase in the ambient air quality concentrations. These maximum ambient air concentrations would next be compared to the significant impact levels to determine if additional modeling is required. The CO emissions would be compared against the 8 hour standard of 500 ug/m³ and the 1 hour standard of 2,000 ug/m³.

The completion of modeling is highly specific to a facility, therefore generic results could not be presented. Typically, however, CO emissions are expected to model as insignificant. If the maximum ambient air impacts were to exceed the significance level, then refined modeling would have to be completed for the construction project. This refined modeling would require completion of an emission inventory for the other facility sources of CO as well as outside sources of CO.

SUMMARY AND RECOMMENDATIONS

The Cluster Rule is requiring mills to consider ECF bleaching technology. This process change will likely cause a PSD significant increase in CO emissions. The requirement of a PSD review could cause an application, which might otherwise be minor, to undergo a time intensive review which could create

delays in the permitting process as well as add to project costs. The expected CO emissions should be determined early in the permitting process so that the impact on air quality can be determined before delays occur. The case study presented did not require additional control. This determination is a case by case analysis and should be made before any construction is considered.

REFERENCES

1. NCASI Technical Bulletin No. 701, "Compilation of 'Air Toxic' and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills," Volume I, October 1995, pg. 59.
2. United States Environmental Protection Agency *NESHAP*, "Pulp, Paper, and Paperboard Industry - Background Information for Proposed Air Emission Standards, Manufacturing Processes at Kraft, Sulfite, Soda, and Semi-Chemical Mills," EPA-453/R-93-050a, October 1993.

Table I. Viable Control Options

Control Option	Critical Factors	Applied	Technically Feasible
Combustion in Dedicated Incinerator	Incinerator sizing, flow rate, % moisture in exhaust stream.	No	Yes
Combustion in Existing Unit	Distance to combustion unit, flow rate, % moisture in exhaust stream.	No	Yes
Platinum Catalyst	Flow rate, % moisture in exhaust stream, type and amount of other contaminants.	No	No

Table II. Benefits and Disadvantages

Control Option	Benefits	Disadvantages
Combustion in Dedicated Incinerator	CO, VOC reduction; Ease of use	Products of combustion emissions added fuel costs high capital costs.
Combustion in Existing Unit	CO, VOC reduction; No added fuel costs; and Lower capital costs.	Concerns with impact on the boiler integrity, possible flame quenching reduction in boiler efficiency.

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PB94-121357

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-453/R-93-050a
October 1993

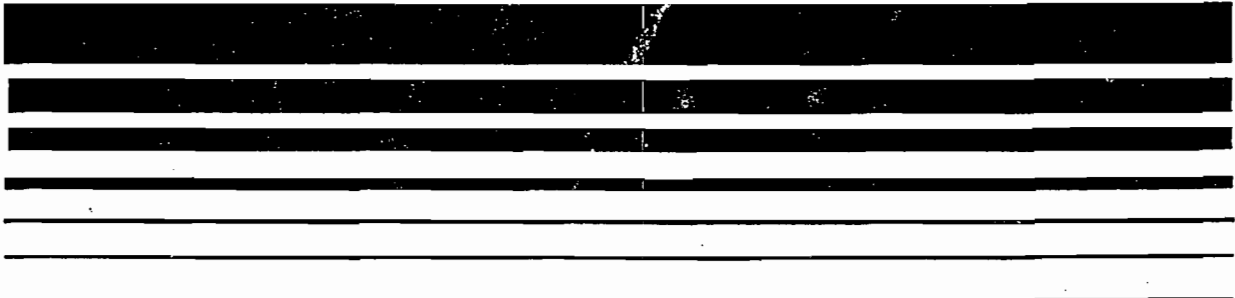
Air



Pulp, Paper, and Paperboard Industry - Background Information for Proposed Air Emission Standards

Manufacturing Processes at Kraft, Sulfite, Soda, and Semi-Chemical Mills

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Capital recovery = Total capital * Capital recovery
cost investment factor (10 years, 10%)

Taxes, insurance, and administrative costs are assumed to be 4 percent of the total capital investment. Overhead is conservatively estimated to be 60 percent of the total labor and maintenance costs.¹²

5.1.3 Thermal Incineration System Costs

Thermal incinerator costs were developed using the cost equations presented in Chapter 3.0 of the OCCM.¹³ As discussed in Chapters 3.0 and 4.0 of this document, a thermal incinerator may be used to control HAP and VOC emissions from halogenated bleaching vent streams. Thermal incinerators may also be used to control pulping vent streams if desired; however, for this analysis it was assumed that pulping vent streams would be controlled by an existing combustion device. Costs for a thermal incinerator for an example bleaching process are given in Section 5.2, and the design consideration for halogenated streams are given below.

5.1.3.1 Thermal Incinerator Design Considerations

Affecting Costs. The thermal incinerator system for halogenated streams consists of the following equipment: combustion chamber, instrumentation, blower, collection fan, ductwork, and stack. The OCCM contains further discussion of incinerator control system design.¹³ General thermal incinerator design parameters are presented in Table 5-3. Other key variables that affect costs are: vent stream flow rate and type of heat recovery (capital costs) and vent stream flow rate, vent stream heat content, and fuel requirements (annual costs).

The amount of oxygen in the vent stream or bound in the VOC establishes the supplemental combustion air requirement. In pulp mills (including pulping and bleaching vents), most of the vent streams are dilute streams and contain an oxygen percentage sufficient to support combustion.¹⁴ Therefore,

TABLE 5-3. THERMAL INCINERATOR GENERAL DESIGN SPECIFICATIONS FOR HALOGENATED VENT STREAMS

Item	Specification
Emission control efficiency	98 percent or greater destruction of VOC
Minimum incinerator capacity ^a	500 scfm
Maximum incinerator capacity	50,000 scfm
Incinerator temperature	1,100 °C (2,000 °F)
Chamber residence times	1.00 sec
Supplemental fuel requirement	Natural gas required to maintain incinerator temperature

^a Five hundred scfm is the minimum incinerator size used to determine capital cost.

for pulp mill vent streams, supplemental combustion air is not expected to be required. In fact, certain pulping vent gases, such as digester relief and blow gases, may have heat contents greater than approximately 100 Btu/scf due to the presence of turpentine compounds. In such cases, the vent stream may be used as supplemental fuel in combustion devices.¹⁵ (See Chapter 3.0 for discussions on vent streams and their heat contents.)

The minimum and maximum incinerator flow rate for this cost analysis were 500 and 50,000 scfm, respectively. Flow rates greater than 50,000 scfm were assumed to be controlled by multiple incinerators.

Halogenated vent streams were not considered to be candidates for heat recovery systems and were costed assuming zero percent heat recovery. This design assumption was imposed because of the potential for corrosion in the heat exchanger and incinerator. Based on an analysis of chlorine, chlorine dioxide, extraction, and hypochlorite bleach plant stages, vent streams that would likely contain higher concentrations of halogens would be from the hypochlorite stage (chloroform) and the chlorination stage (chlorine). If the temperature of the flue gas leaving the heat exchanger were to drop below the acid dew point temperature for these vent streams, acid gases would condense. In cases such as bleaching vents steams where heat is not recovered, the annual fuel costs would be higher than for cases where heat recovery is practiced, other factors being held constant.

The destruction of VOC's is a function of incinerator temperature, residence time in the combustion chamber, and concentration of VOC's in the vent stream. Since these parameters affect capital and annual costs, their values had to be established. Previous EPA studies show that at least 98 percent destruction efficiency can be met in a thermal incinerator operated at a temperature of 1600°F and a residence time of 0.75 seconds.¹⁶ Thermal oxidation of

halogenated VOC requires higher temperatures. Available data indicate that a temperature of 2,000°F and a residence time of one second are necessary to achieve at least 98 percent VOC destruction efficiency for halogenated vent streams.¹⁷

Auxiliary fuel will almost always be necessary for start-up of the unit. Also, in most cases, additional fuel must be added to maintain the incinerator temperature. With the following assumptions, the amount of auxiliary fuel required was estimated using the heat and energy balance around the combustion chamber.¹⁸

- The reference temperature is taken as the inlet temperature of the auxiliary fuel (77°F).
- No auxiliary combustion air is required (i.e., it is assumed that the oxygen content of the vent stream is at least 18 percent).
- Energy losses are assumed to be 10 percent of the total energy input to the incinerator above ambient conditions.
- At a constant moisture content, the heat capacities of the bleach plant vent streams entering and leaving the combustion chamber are approximately the same regardless of composition of the organics. This is true for waste streams which are dilute mixtures of organics in air, the properties of the streams changing only slightly on combustion.

These assumptions and subsequent calculations of the fuel requirements for a model vent stream are presented in a separate document.¹⁹

5.1.3.2 Development of Thermal Incinerator Capital Costs. The cost analysis for thermal incinerators presented below follows the methodology outlined in the OCCM. Equipment cost correlations are based on data provided by various vendors; each correlation is valid for incinerators in the 500 to 50,000 scfm range.²⁰ Thus, the smallest incinerator size used for determining equipment costs is 500 scfm; for flow rates greater than 50,000, additional incinerators are costed.

Equipment costs are given as a function of total volumetric flow through the incinerator and are accurate to within 30 percent. For halogenated streams, the equation used in the costing analysis, after converting to 4th Quarter 1991 dollars, is as follows:²¹

$$EC = 10,930 Q_{TOT}^{0.2355}$$

where:

- EC = Equipment costs (4th Quarter 1991 dollars); and
- Q_{TOT} = Total volumetric flow rate through the incinerator including any additional air and fuel.

The cost for the conveyance of bleaching process vent streams to the incinerator is not included in the incinerator equipment cost. The methodology for calculating costs for the conveyance system for an incinerator is presented in Section 5.1.2.

Installation costs are estimated as a percentage of purchased equipment costs and include auxiliary equipment, instrumentation, sales taxes, and freight. Direct and indirect installation costs for thermal incinerators have been incorporated into the total capital investment. The total capital investment is estimated at 1.61 times the purchased equipment cost.

5.1.3.3 Development of Thermal Incinerator Total Annual Cost. Annual costs for the incinerator system include direct operating and maintenance costs, as well as annualized capital charges. The bases for determining thermal incinerator annual costs are presented below.

The utilities considered in the annual cost estimates include natural gas (auxiliary fuel) and electricity (incinerator fan). The fuel and electricity costs were assumed to equal \$3.48 per 1,000 cubic feet of natural gas and \$0.04/kW-hr, respectively. The procedure for estimating the

electricity requirement is described in Chapter 3.0 of the OCCM.¹³ The procedure for estimating the natural gas requirement was presented in Section 5.1.3.1.

For this cost analysis it was assumed that the incinerator requires 0.5 hour of operating labor per 8-hour shift. Maintenance labor requirements are assumed to be identical to operating labor requirements. Supervisory cost is estimated to be 15 percent of the operating labor cost.²² Maintenance material costs are assumed to be equal to maintenance labor costs.

The annualized capital charges include capital recovery charges as well as taxes, insurance, administrative and overhead charges. The capital recovery cost was calculated as described in previous sections. Taxes, insurance, and administrative costs were assumed to be 4 percent of the total capital investment. Overhead was estimated to be 60 percent of the total labor and maintenance costs.²³

5.1.4 Scrubber System Costs

Scrubber costs were developed for two scenarios. Scrubber systems were applied as secondary control to remove acid gases from the incinerator exhaust after combustion of halogenated bleach plant streams (i.e., post-incineration scrubbers). Scrubbers were also used as a primary control for bleach plant vent streams, without incineration (i.e., stand-alone scrubbers). (However, based on recent industry comments, stand-alone scrubbers could be acting as emission points for methanol. Scrubber effluent could also emit volatile HAP's.) Design considerations for the two scrubbing scenarios described above are presented in the following two sections.

5.1.4.1 Post-Incineration Scrubber Design Considerations Affecting Costs. Scrubber systems consist of the following major equipment: quench chamber, packed tower, pump, ductwork, and fan. Post-incineration scrubber systems are designed to remove acid gases formed during combustion of halogenated organics. System elements and design assumptions

TABLE 5-11. COSTS FOR CONTROL OF MODEL MILL BLEACHING VENT STREAMS USING AN INCINERATOR FOLLOWED BY A SCRUBBER^a

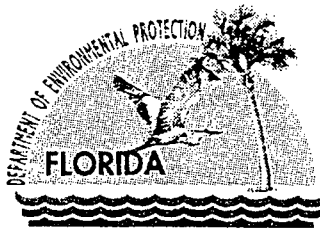
Cost component	Equipment size or cost factor	Component cost (\$)	Total cost (\$)
Equipment costs: ^b			
Incinerator = EC	1 incinerator 51,400 scfm	132,000	
Purchased equipment cost (PEC)	1.18 (EC)	156,000	
Total capital investment (TCI):			
TCI _{incinerator}	1.61 * PEC	250,000	
TCI _{duct to incinerator}	1 duct 1000 ft. length 48 in. diameter 20 elbows	2,830,000	
TCI _{duct to scrubber}	300 ft length 48 in. diameter 6 elbows	595,000	
TCI _{scrubber}	15 ft. diameter 27 ft. height	650,000	
TCI	TCI _{incinerator} + TCI _{duct to incinerator} + TCI _{duct to scrubber} + TCI _{scrubber}		4,320,000

TABLE 5-11. COSTS FOR CONTROL OF MODEL MILL BLEACHING VENT STREAMS USING AN INCINERATOR FOLLOWED BY A SCRUBBER (Concluded)

Cost component	Equipment size or cost factor	Component cost (\$)	Total cost (\$)
Total annual costs (TAC)			
TAC _{incinerator}		2,830,000	
TAC _{duct to incinerator}		650,000	
TAC _{duct to scrubber and scrubber}		370,000	
TAC	TAC _{incinerator} + TAC _{duct to incinerator} + TAC _{duct to scrubber and scrubber}		3,840,000

^a Based on tower, washer and seal tank vents from C, D, E, and H stages.

^b Detailed equipment size and cost procedures for duct are presented in Table 5-8 and for scrubber in Table 5-10.



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

March 9, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David Spraley, Vice President
Palatka Operations
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

Re: DEP File No. 1070005-006-AC (PSD-FL-264)
Kraft Pulp Facility, New Bleach Plant

Dear Mr. Spraley:

The Department has received the application on February 9, 1999 for the replacement of the existing No.1 and No. 2 Bleach Plants with a new bleach plant at the above referenced facility in Putnam County. Based on our initial review of the proposed project, we have determined that additional information is needed in order to continue processing this application package. Please submit the information requested below to the Department's Bureau of Air Regulation:

1. Based on the response by e-mail received on March 9, 1999, and the definition of modification pursuant to Rule 62-210.200, F.A.C., actual pollutant emission from both the pulping side and the chemical recovery side of the facility must be based on the 1997 and 1998 calendar years. These two years represent the highest pulp production in the last five years and should be used to calculate the baseline actual pollutant emissions for all pollutants emitted from both the pulping production side and the chemical recovery side. These emissions should then be compared to the future potential pollutant emissions from the facility. Any net pollutant emissions increases above the significant levels contained in Table 400-2 in Rule 62-212.400, F.A.C., are subject to PSD New Source Review (NSR) requirements pursuant to Rule 62-212.400(5), F.A.C. Please provide all calculations for the baseline pollutants and future potential pollutants, and any PSD NSR requirements (i.e., BACT analysis) where applicable.
2. The Best Available Control Technology (BACT) determination to control CO emissions did not include different control technologies being utilized for CO control. If the control technologies are not technically feasible for this operation, then it must be qualified in the BACT write-up. If the control technologies are technically feasible then economic analyses must be performed for various control technologies suggested in the BACT analyses.

3. Section 2.1 of the application fails to list the third major change associated with this proposed modification. Please submit the information for our review.
4. Please provide copies of the pertinent sections of the NCASI Technical Bulletin Nos. 679, 701 and 760 that were used for determining the potential pollutant emission estimates in the PSD application.
5. Please provide data for the bleach pulp production for the last five years.

We have not yet received comments from the U.S. Fish and Wildlife Service or from the EPA. Their comments will be forwarded to you as soon as we receive them.

The Department will resume processing this application after receipt of the requested information. If you have any questions regarding this matter, please call Syed Arif, P.E. at (850) 921-9528.

Sincerely,



A. A. Linero, P.E. Administrator
New Source Review Section

AAL/sa

cc: Gregg Worley, EPA
John Bunyak, NPS
C. Kirts, DEP-NED
D. Buff, Golder Associates

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PS Form 3800, April 1995

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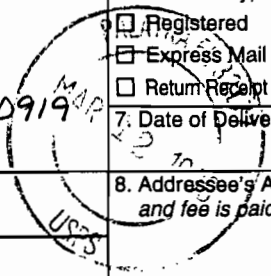
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Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



March 8, 1999

Florida Department of Environmental Protection
New Source Review Section Bureau of Air Regulations
2600 Blair Stone Road
Tallahassee, FL 32399-2400

9737574A/3
RECEIVED

MAR 09 1999

BUREAU OF
AIR REGULATION

Attention: Syed Arif, P.E.

RE: GEORGIA PACIFIC PSD PERMIT APPLICATION ADDENDUM NO. 1

Dear Mr. Arif:

On behalf of Georgia Pacific Corporation (G-P), Golder Associates Inc. (Golder) is submitting additional information as an addendum to the No. 3 Bleach Plant PSD permit application submitted in early February. This information is being submitted pursuant to the meeting between G-P and the Florida Department of Environmental Protection (FDEP) on February 24, 1999. The following five bullets address concerns raised by the FDEP at the meeting.

- Excerpts from NCASI Technical Bulletins 679, 701, and 760 which are referenced in the permit application are included with this letter for FDEP's reference.
- Actual bleach plant production rates used to estimate existing carbon monoxide (CO) emissions were based on values from 1995 and 1996. This 2-year period was selected instead of the most recent consecutive 2-year period because it is the most representative of maximum production rates during the last 5 years. The most recent 5-years of production data is given below.

<u>Year</u>	<u>Tons of Bleached Pulp</u>
1998	261,829
1997	262,828
1996	266,727
1995	269,830
1994	244,227

- Attachment A, Page 2-1, 3rd paragraph indicates that the proposed construction will include three major changes. This is a typographical error. It should read "The proposed construction will include two major changes."
- The FDEP has requested further explanation of how the maximum daily and annual bleach plant production rates were derived. These rates were used to develop short and long term pollutant emissions.

The proposed bleach plant will be designed for a maximum monthly average production rate of 1,350 Air Dried Tons of Bleached Pulp (ADTBP) per day and a maximum daily production rate of 1,702 ADTBP per day. The daily production rate represents the maximum rate at which bleached pulp can be produced by the new plant. However, this rate is not typically sustained hence, a maximum monthly average rate of 1,350 ADTBP per day is a more accurate representation of the typical production rate for the proposed bleach plant.

The maximum daily process rate of 1,702 ADTBP was used to estimate short term (hourly) pollutant emissions. Conversely, long term (annual) pollutant emissions were estimated using the maximum monthly average production rate of 1,350 ADTBP per day.

- The FDEP has indicated that the BACT analysis for CO is incomplete as it is currently written. The FDEP requires that G-P address additional control techniques for the reduction of bleach plant CO emissions. Specifically, the FDEP has requested that G-P perform a feasibility and cost analysis, as necessary, for catalytic oxidation and thermal oxidation of CO. Golder is currently researching these control techniques and will submit the results as Addendum No. 2 as soon as it is complete.

If you have any questions concerning this submittal, please contact me at (352)-336-5600 ext. 539 or the professional engineer of record for the application at ext.545.

Sincerely,

GOLDER ASSOCIATES INC.



Paul Wesson
Staff Environmental Engineer

PJW/arz

cc: Chris Kirts, FDEP NE District
Joe Taylor, G-P
David Buff, Golder



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

February 11, 1999

Mr. Gregg Worley, Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA – Region IV
61 Forsyth Street
Atlanta, Georgia 30303

Re: Georgia-Pacific Corporation
1070005-006-AC, PSD-FL-264

Dear Mr. Worley:

Enclosed for your review and comment is an application for the above mentioned project. The purpose of the project is to comply with Phase I of the MACT Cluster Rule. Although it will result in reductions of emissions and discharges, it will also result in PSD significant emission increases of carbon monoxide.

Your comments can be forwarded to my attention at the letterhead address or faxed to the Bureau at (850)922-6979. If you have any questions, please contact Syed Arif at (850)921-9528

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/kt

Enclosures

cc: S. Arif, BAR



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

February 11, 1999

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS-Air Quality Division
Post Office Box 25287
Denver, CO 80225

Re: Georgia-Pacific Corporation
1070005-006-AC, PSD-FL-264

Dear Mr. Bunyak:

Enclosed for your review and comment is an application for the above mentioned project. The purpose of the project is to comply with Phase I of the MACT Cluster Rule. Although it will result in reductions of emissions and discharges, it will also result in PSD significant emission increases of carbon monoxide.

Your comments can be forwarded to my attention at the letterhead address or faxed to the Bureau at (850)922-6979. If you have any questions, please contact Syed Arif at (850)921-9528

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/kt

Enclosures

cc: S. Arif, BAR



Georgia-Pacific Corporation

Palatka Operations
Packaged Products Division
P.O. Box 919
Palatka, Florida 32178-0919
Telephone (904) 325-2001

February 8, 1999

Mr. Al Linero
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Mail Station 5505
2600 Blair Stone Road
Tallahassee, Florida 32299-2400

RECEIVED

FEB 11 1999

BUREAU OF
AIR REGULATION

PSD-FI-264
1070005-006-AC

Dear Mr. Linero:

Enclosed, please find enclosed Check No. 00884270, in the amount of \$7,500, to cover the cost of the application for an air construction permit (four copies enclosed) to construct a new bleach plant to convert to elemental chlorine free technology. This is part of our strategy to comply with the Cluster Rule.

If you have any questions or comments, please do hesitate to contact me at 904-329-0918.

Sincerely,

Myra J. Carpenter
Environmental Superintendent

kb

Enclosures

cc: Syed Arif

Georgia-Pacific

Shared Services
7016 A. C. Skinner Parkway
Jacksonville, FL 32256
(800) 644-1365



WACHOVIA
Wachovia Bank of Georgia, N.A.
Augusta, Georgia 30903

64-1327

611

Check Number 00884270

Date	Amount
02/01/99	*****7,500.00

Void After 180 Days

PAY Seven Thousand Five Hundred and 00/100 Dollars

TO THE
ORDER OF

STATE OF FLORIDA, DEPARTMENT OF
ENVIRONMENTAL PROTECTION
P O BOX 3070
TALLAHASSEE, FL 32315

Richard F. Roth

Two MANUAL signatures required for amounts over \$300,000



Georgia-Pacific

Shared Services
7016 A. C. Skinner Parkway
Jacksonville, FL 32256
(800) 644-1365



G-P Location Name:
PALATKA

Check No. 00884270
Date 02/01/99

Vendor No. PP 258-F3781
STATE OF FLORIDA, DEPARTMENT OF

INVOICE NUMBER	AMOUNT	DISCOUNT	NET AMOUNT
CR012999 K. BISSO	7,500.00	.00	7,500.00
TOTALS	7,500.00	.00	7,500.00

FORMS CONTROL NUMBER:
(SEE CHECK NUMBER ABOVE) 3815088

File Copy

AIR CONSTRUCTION
PERMIT APPLICATION
FOR
PROPOSED ECF BLEACH PLANT

GEORGIA-PACIFIC CORPORATION
PALATKA MILL

Prepared For:

Georgia-Pacific Corporation
North of CR 216; West of US 17
Palatka, FL 32177

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street
Gainesville, FL 32653

DISTRIBUTION:
10 Copies - Joe Taylor
2 Copies - Golder Associates Inc.

RECEIVED

FEB 10 1999

BUREAU OF
AIR REGULATION

TABLE OF CONTENTS
(Page 1 of 4)

PART A: PERMIT APPLICATION FORMS

PART B: PSD REPORT (ATTACHMENT A)

1.0	INTRODUCTION	1-1
2.0	PROJECT DESCRIPTION.....	2-1
2.1	BACKGROUND	2-1
2.1.1	UNBLEACHED STORAGE.....	2-1
2.1.2	NO. 3 BLEACH PLANT.....	2-2
2.2	AIR EMISSIONS	2-2
2.2.1	CURRENT AIR EMISSIONS.....	2-3
2.2.2	FUTURE AIR EMISSIONS.....	2-4
3.0	AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY	3-1
3.1	NATIONAL AND STATE AAQS.....	3-1
3.2	PSD REQUIREMENTS	3-1
3.2.1	GENERAL REQUIREMENTS.....	3-1
3.2.2	SOURCE IMPACT ANALYSIS.....	3-2
3.2.3	CONTROL TECHNOLOGY REVIEW.....	3-5
3.2.4	AIR QUALITY MONITORING REQUIREMENTS	3-7
3.2.5	SOURCE INFORMATION/GOOD ENGINEERING PRACTICE STACK HEIGHT	3-8
3.2.6	ADDITIONAL IMPACT ANALYSES.....	3-9
3.3	NON-ATTAINMENT RULES.....	3-9

TABLE OF CONTENTS
(Page 2 of 4)

3.4 SOURCE APPLICABILITY3-10

 3.4.1 PSD REVIEW3-10

 3.4.2 NONATTAINMENT REVIEW3-12

 3.4.3 NEW SOURCE PERFORMANCE STANDARDS3-12

 3.4.4 MACT STANDARDS FOR THE PULP AND PAPER
 INDUSTRY3-12

 3.4.5 STATE OF FLORIDA EMISSION STANDARDS3-13

4.0 AIR QUALITY MODELING APPROACH4-1

 4.1 GENERAL MODELING APPROACH4-1

 4.2 MODEL SELECTION4-2

 4.3 METEOROLOGICAL DATA4-3

 4.4 BUILDING DOWNWASH CONSIDERATIONS4-4

 4.5 SIGNIFICANT IMPACT ANALYSIS4-4

 4.5.1 METHODOLOGY4-4

 4.5.2 SOURCE INVENTORY4-4

 4.5.3 RECEPTORS4-5

 4.5.4 RESULTS4-5

TABLE OF CONTENTS
(Page 3 of 4)

5.0	BEST AVAILABLE CONTROL TECHNOLOGY	5-1
5.1	REQUIREMENTS.....	5-1
5.2	BACT FOR CO FROM BLEACH PLANT NO. 3.....	5-1
6.0	ADDITIONAL IMPACT ANALYSIS	6-1
6.1	INTRODUCTION	6-1
6.2	SOIL, VEGETATION, AND AQRV ANALYSIS METHODOLOGY.....	6-1
6.3	IMPACTS TO SOILS, VEGETATION, AND VISIBILITY IN VICINITY OF G-P PLANT	6-2
6.3.1	PREDICTED AIR QUALITY IMPACTS.....	6-2
6.3.2	IMPACTS TO SOILS.....	6-2
6.3.3	IMPACTS TO VEGETATION	6-3
6.3.4	IMPACTS UPON VISIBILITY	6-4
6.3.5	IMPACTS DUE TO ASSOCIATED POPULATION GROWTH	6-4
6.4	CLASS I AREA IMPACT ANALYSIS	6-4
6.4.1	DEFINITION OF AQRVS AND CRITERIA APPLIED TO OKEFENOKEE NWA	6-4
6.4.2	AQRVS OF OKEFENOKEE NWA.....	6-5
6.4.3	REPORTED AIR QUALITY EFFECTS ON OKEFENOKEE NWA.....	6-5
6.4.4	PREDICTED AIR QUALITY IMPACTS IN THE CLASS I AREA ...	6-5
6.4.5	VEGETATION AQRVS ANALYSIS.....	6-6
6.4.6	SOILS AQRV ANALYSIS	6-7
6.4.7	WILDLIFE AQRV ANALYSIS.....	6-7

TABLE OF CONTENTS

(Page 4 of 4)

6.4.8 VISIBILITY IMPACTS6-7

6.4.9 SUMMARY.....6-7

PART A
PERMIT APPLICATION

Department of Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

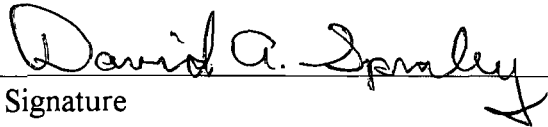
Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: Georgia-Pacific Corporation	
2. Site Name: Palatka Mill	
3. Facility Identification Number: 1070005 [] Unknown	
4. Facility Location Information: Street Address or Other Locator: North of CR 216; West of US 17 City: Palatka County: Putnam Zip Code: 32177	
5. Relocatable Facility? [] Yes [X] No	6. Existing Permitted Facility? [X] Yes [] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	February 9, 1999
2. Permit Number:	1070005-006-AC
3. PSD Number (if applicable):	PSD-FI-264
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: David Spraley, Vice President, Palatka Operations
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Georgia-Pacific Corporation Street Address: P.O. Box 919 City: Palatka State: FL Zip Code: 32178-0919
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (904) 325-2001 Fax: (904) 328-0014
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature _____ Date _____

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit	Permit Type
--------------------------	--------------------------------------	--------------------

Unit #	Unit ID	
1R	Proposed ECF No. 3 Bleach Plant	AC1E

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

-] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

-] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

-] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

-] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be renewed: _____

-] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

-] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit. Give reason for the revision e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: _____

Reason for revision: _____

Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain:

- Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): _____

- Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

- Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g.; to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units.

This Application for Air Permit is submitted to obtain:

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: _____

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s): _____

- Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one:

Attached - Amount: \$ \$ 7,500.00 Not Applicable.

Construction/Modification Information

<p>1. Description of Proposed Project or Alterations:</p> <p>This application is being submitted for a proposed ECF Bleach Plant at Georgia-Pacific's Palatka mill. See Attachment A for details.</p>
<p>2. Projected or Actual Date of Commencement of Construction :</p> <p>1 Mar 1999</p>
<p>3. Projected Date of Completion of Construction :</p> <p>1 Mar 2001</p>

Professional Engineer Certification

<p>1. Professional Engineer Name: David A. Buff Registration Number: 19011</p>
<p>2. Professional Engineer Mailing Address: Organization/Firm: Golder Associates Inc. Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653-1500</p>
<p>3. Professional Engineer Telephone Numbers: Telephone: (352) 336-5600 Fax: (352) 336-6603</p>

4. Professional Engineer's Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

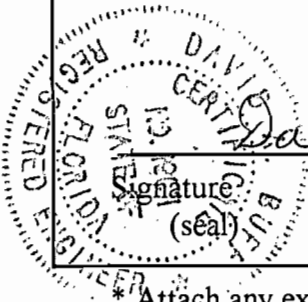
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.



David a. Buff

Date

1/29/99

*Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:

Myra Carpenter, Superintendent of Env. Affairs

2. Application Contact Mailing Address:

Organization/Firm: **Georgia-Pacific Corporation**

Street Address: **P.O. Box 919**

City: **Palatka**

State: **FL**

Zip Code: **32178-0919**

3. Application Contact Telephone Numbers:

Telephone: **(904) 325-2001**

Fax: **(904) 328-0014**

Application Comment

See Attachment A

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Not Applicable

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
PM Particulate Matter - Total	A
PM10 Particulate Matter - PM10	A
SO2 Sulfur Dioxide	A
NOx Nitrogen Oxides	A
CO Carbon Monoxide	A
VOC Volatile Organic Compounds	A
SAM Sulfuric Acid Mist	A
TRS Total Reduced Sulfur	A
HAPS Total Hazardous Air Pollutants	A
H001 Acetaldehyde	A
H021 Beryllium Compounds	B
H043 Chloroform	A
H095 Formaldehyde	A
H106 Hydrochloric acid	A
H115 Methanol	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>GP-FI-E1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>GP-FI-E2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID(s): _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> Not Applicable

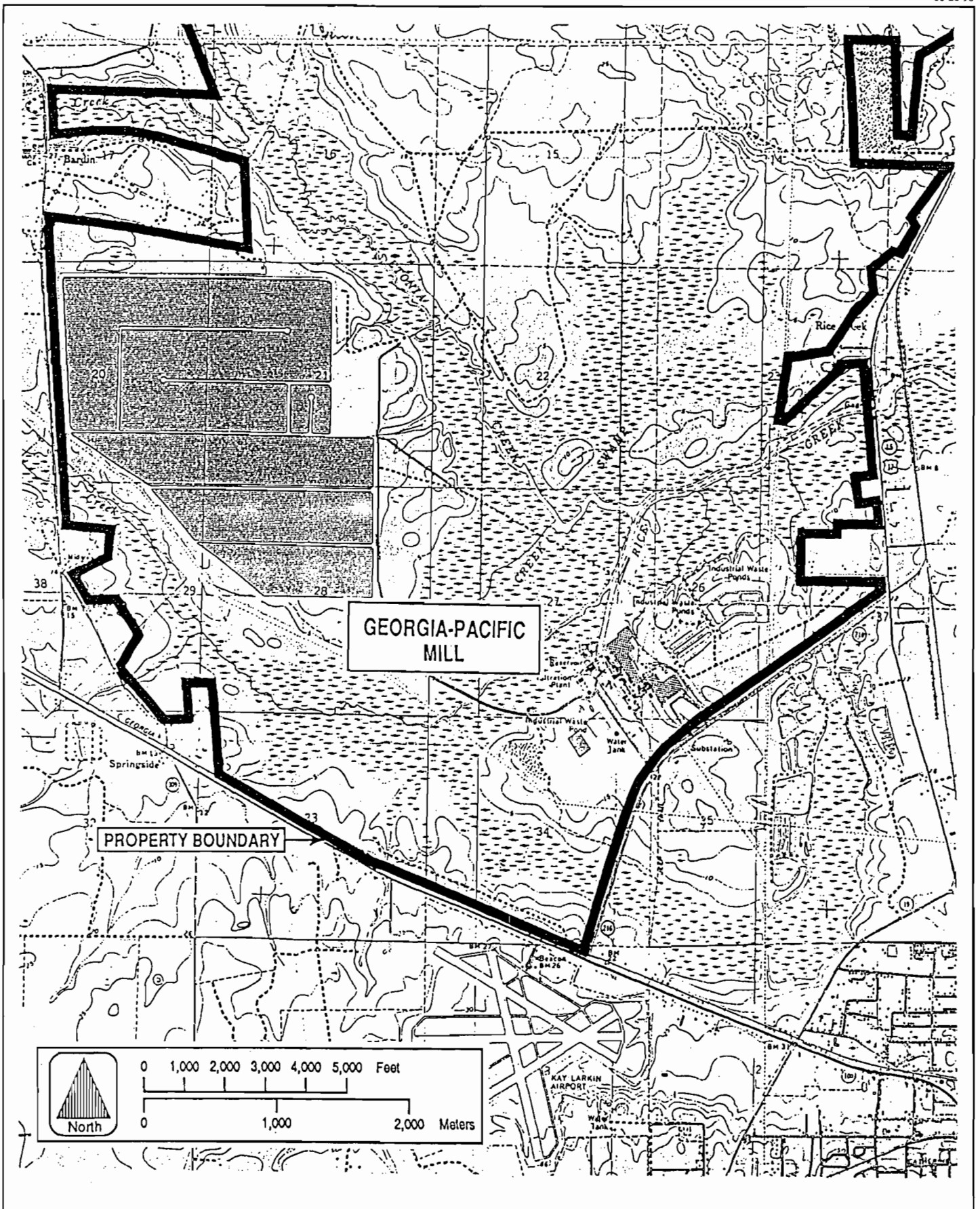
Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
9. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

<p>11. Identification of Additional Applicable Requirements:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>12. Compliance Assurance Monitoring Plan:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>13. Risk Management Plan Verification:</p> <p><input type="checkbox"/> Plan Submitted to Implementing Agency - Verification Attached Document ID: _____</p> <p><input type="checkbox"/> Plan to be Submitted to Implementing Agency by Required Date</p> <p><input type="checkbox"/> Not Applicable</p>
<p>14. Compliance Report and Plan</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>15. Compliance Statement (Hard-copy Required)</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>

ATTACHMENT GP-FI-E1

AREA MAP

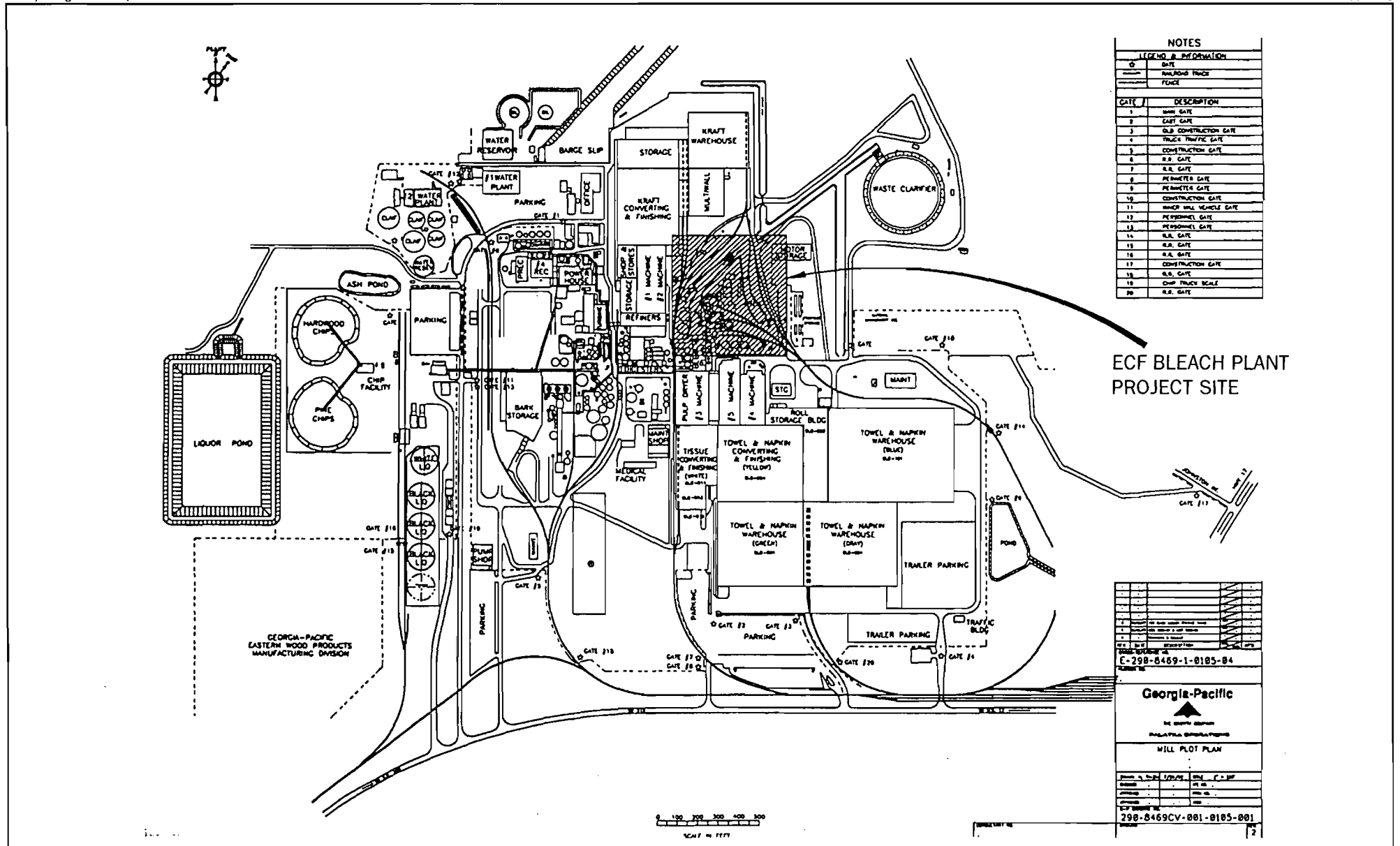


Attachment GP-FI-E1
Area Map: Georgia-Pacific Corporation
Palatka Mill



ATTACHMENT GP-FI-E2

FACILITY PLOT PLAN



NOTES

LEGEND & INFORMATION

○	GATE
—	SHEDDING TRUCK
—	FENCE

GATE #	DESCRIPTION
1	MAIN GATE
2	GAFF GATE
3	OLD CONSTRUCTION GATE
4	TRUCK TRAFFIC GATE
5	CONSTRUCTION GATE
6	R.R. GATE
7	R.R. GATE
8	PERSONNEL GATE
9	PERSONNEL GATE
10	CONSTRUCTION GATE
11	MINOR VEHICLE GATE
12	PERSONNEL GATE
13	PERSONNEL GATE
14	R.R. GATE
15	R.R. GATE
16	R.R. GATE
17	CONSTRUCTION GATE
18	R.R. GATE
19	CHP TRUCK SCALE
20	R.R. GATE

ECF BLEACH PLANT PROJECT SITE

NO. 1	DATE	BY	CHKD.
NO. 2	DATE	BY	CHKD.
NO. 3	DATE	BY	CHKD.
NO. 4	DATE	BY	CHKD.
NO. 5	DATE	BY	CHKD.
NO. 6	DATE	BY	CHKD.
NO. 7	DATE	BY	CHKD.
NO. 8	DATE	BY	CHKD.
NO. 9	DATE	BY	CHKD.
NO. 10	DATE	BY	CHKD.
NO. 11	DATE	BY	CHKD.
NO. 12	DATE	BY	CHKD.
NO. 13	DATE	BY	CHKD.
NO. 14	DATE	BY	CHKD.
NO. 15	DATE	BY	CHKD.
NO. 16	DATE	BY	CHKD.
NO. 17	DATE	BY	CHKD.
NO. 18	DATE	BY	CHKD.
NO. 19	DATE	BY	CHKD.
NO. 20	DATE	BY	CHKD.

DATE PLOTTED: 8/19/98
 C-298-8469-1-0185-84
 1/2" = 1'

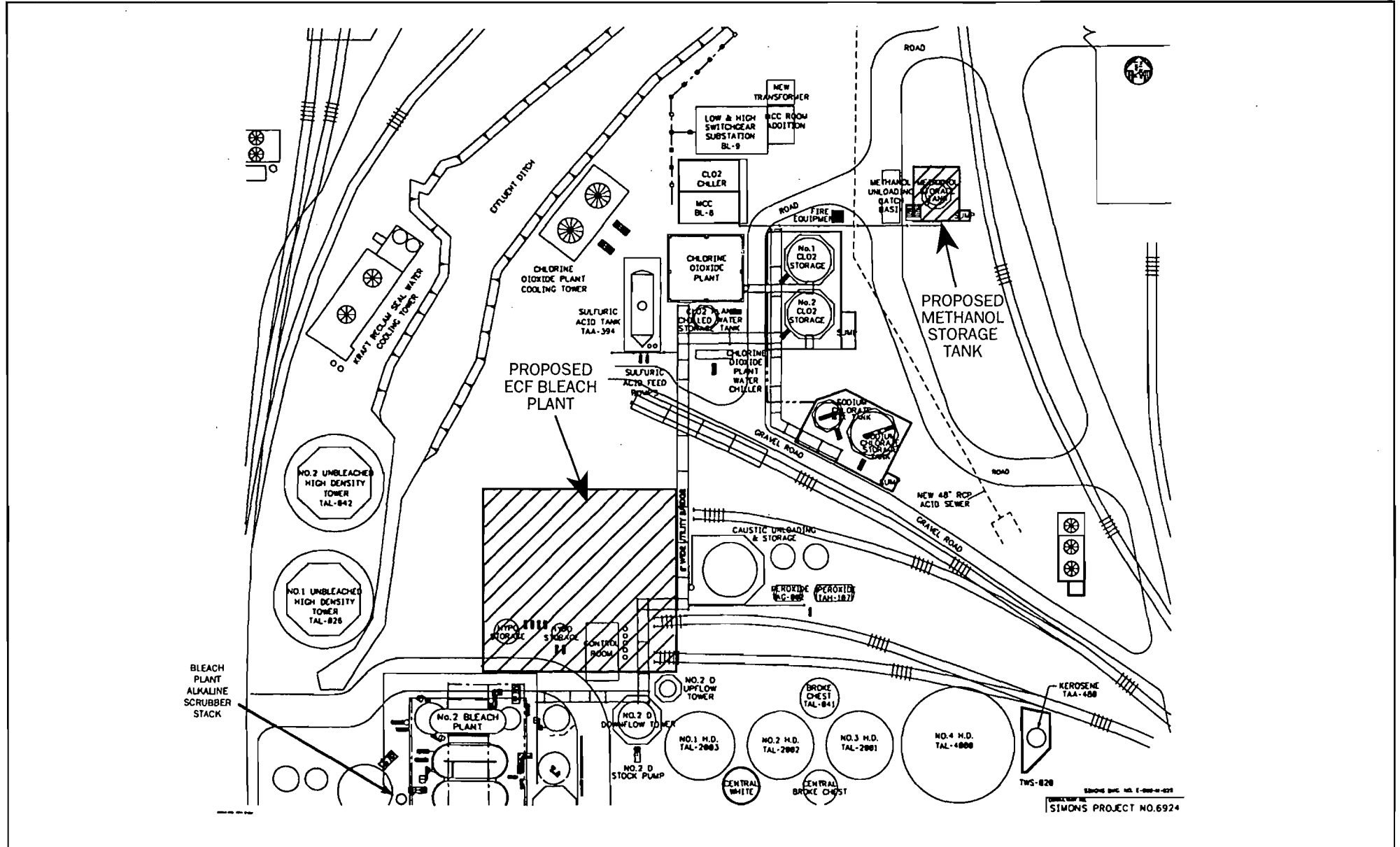
Georgia-Pacific
 THE GEORGIA PACIFIC
 PULP & PAPER DIVISION
 WILL PLOT PLAN

DATE PLOTTED: 8/19/98
 C-298-8469CV-001-0185-001

Attachment GP-FI-E2a
 Plot Plan

Source: Georgia Pacific, 1998.





TWS-828
SIMONS PROJECT NO.6924

Attachment GP-FI-E2b
Plot Plan

Source: Georgia Pacific, 1998.



III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Proposed ECF No. 3 Bleach Plant		
2. Emissions Unit Identification Number: <input checked="" type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Emissions Unit Major Group SIC Code: 26
6. Emissions Unit Comment (limit to 500 characters): ECF No. 3 Bleach Plant will replace Bleach Plant Nos. 1 and 2 and will utilize an Elemental Chlorine Free (ECF) bleaching process. See Attachment A for further details.		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters): Packed-Gas Adsorption column- Control for ECF Bleach Plant
2. Control Device or Method Code: 50

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Details

1. Initial Startup Date:		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:	1,350	tons/day
5. Operating Capacity Comment (limit to 200 characters):		
<p>Maximum production rate refers to average monthly design rate for Air Dried Tons of Bleached Pulp (ADTBP) production for the bleach plant. Maximum daily pulp production design rate is 1,702 ADTBP per</p>		

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/yr	8,760 hours/yr

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

- 40CFR63.445 - Standards for Bleaching System
- 40CFR63.450 - Standards for Enclosures and Closed-Vent Systems
- 40CFR63.453 - Monitoring Requirements
- 40CFR63.454 - Recordkeeping Requirements
- 40CFR63.455 - Reporting Requirements
- 40CFR63.457 - Test Methods and Procedures
- 62-296.320(2), F.A.C. - General Pollutant Emission Limiting Standards: Odor

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: ECF Bleach Plant	
2. Emission Point Type Code: <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	118 feet
7. Exit Diameter:	4 feet
8. Exit Temperature:	150 °F

9. Actual Volumetric Flow Rate:	23,000 acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone:	East (km): North (km):
14. Emission Point Comment (limit to 200 characters):	
<p>Values representative of scrubber exhaust stack. ACFM represents maximum design rate. Scrubber will operate below this rate.</p>	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Pulp and Paper and Wood - Sulfate (Kraft) Pulping; Industrial Processes: Sulfate (Kraft) Pulping: Bleaching Reactors	
2. Source Classification Code (SCC): 3-07-001-14	
3. SCC Units: Tons Air-Dried Unbleached Pulp Produced	
4. Maximum Hourly Rate: 77.1	5. Maximum Annual Rate: 535,455
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): See Attachment GP-EU1-F10	

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC	050		NS
HAPS	050		WP
H115	050		NS
H043	050		WP
CO			NS
H038	050		WP

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: VOC		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	24.1 lb/hour	80.7 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		
Reference: NCASI		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p>See Table 2-2.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<p>VOC's are from bleach plant alkaline wet scrubber.</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: HAPS		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	22.3 lb/hour	75.5 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		
Reference: Manuf. Info. & NCASI		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p>See Table 2-2.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: H115		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	20.6 lb/hour	68.8 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		
Reference: NCASI		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
See Table 2-2.		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
Pollutant code H115 is methanol.		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: H043		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	0.58 lb/hour	1.94 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		
Reference: NCASI		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p>See Table 2-2.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<p>Pollutant code H043 is chloroform.</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: CO		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	63.4 lb/hour	201 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor: Reference: NCASI		
7. Emissions Method Code: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): See Attachment 2-2. Hourly emissions based on max daily pulp production of 1,702 ADTBP per day. Annual emissions based on avg. monthly pulp production of 1,350 ADTBP per day.		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <p style="text-align: right;">✓</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: H038		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	0.91 lb/hour	3.99 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		
Reference: Manuf. Estimate		
7. Emissions Method Code:		
<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p>See Table 2-2.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<p>Pollutant code H038 is chlorine.</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Continuous Monitoring System Continuous Monitor 1 of 3

1. Parameter Code: pH	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): 40CFR63.453(c)(1) requires pH monitoring of the gas scrubbing medium.	

Continuous Monitoring System Continuous Monitor 2 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): 40CFR63.453(c)(2) requires measurement of vent gas inlet flow rate.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): 40CFR63.453(c)(3) requires measurement of the gas scrubber liquid influent flow rate.	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are non-zero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
	SO ₂	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
	NO ₂	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO ₂	lb/hour		tons/year
	NO ₂			tons/year
5.	PSD Comment (limit to 200 characters):			
	Emission unit does not emit PM, SO₂ or NO_x.			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**

Supplemental Requirements for All Applications

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>GP-EU1-L1</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
2.	Fuel Analysis or Specification	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>GP-EU1-L3</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Previously Submitted, Date: _____	<input checked="" type="checkbox"/> Not Applicable
6.	Procedures for Startup and Shutdown	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
8.	Supplemental Information for Construction Permit Application	<input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u>	<input type="checkbox"/> Not Applicable	
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

ATTACHMENT GP-EU1-F10
SEGMENT COMMENT

ATTACHMENT GP-EU1-F10
SEGMENT COMMENT

Maximum Annual Rate based on average monthly No. 3 Bleach Plant production of 1,350 Air Dired Tons of Bleached Pulp (ADTBP) per day. Maximum hourly rate based on maximum daily production of 1,702 ADTBP per day. Values converted to Air-Dried Tons Unbleached Pulp (ADTUP) using a conversion factor of Unbleached/Bleached = 1/0.92.

$1,350 \text{ ADTBP} \div 0.92 = 1,467 \text{ ADTUP}$ (monthly average)

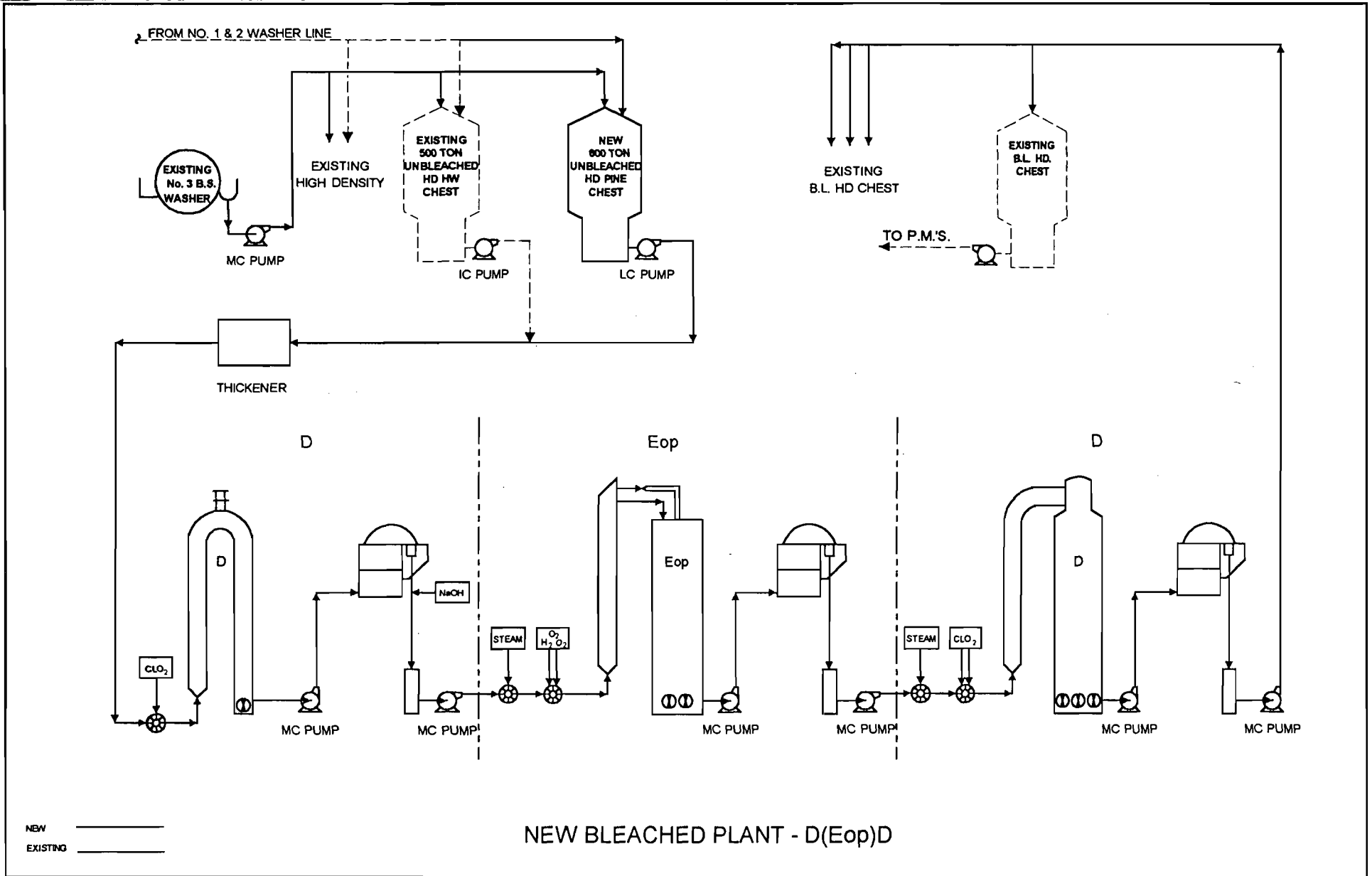
$1,702 \text{ ADTBP} \div 0.92 = 1,850 \text{ ADTUP}$ (maximum daily)

Maximum Hourly Rate: $1,850 \text{ ADTUP} \div 24 \text{ hrs/day} = 77.1 \text{ ADTUP per hour}$, 24-hr average

Maximum Annual Rate: $1,467 \text{ ADTUP} * 365 \text{ days/yr} = 535,455 \text{ ADTUP per year}$

ATTACHMENT GP-EU1-L1

PROCESS FLOW DIAGRAM



ATTACHMENT: GP-EU1-L1

Revision Date: November 1998
 Filename: 9737574Y/F2/GPEU1L1.VSD
 SOURCE: GEORGIA PACIFIC, 1998.

Process Flow Legend

NEW CONFIGURATION ———→
 EXISTING CONFIGURATION - - - - -→

PROPOSED
 ECF BLEACH PLANT
 FLOW DIAGRAM



ATTACHMENT GP-EU1-L3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Attachment GP-EU3-L3

Georgia Pacific Corporation Palatka Facility
Existing Chlorine Dioxide Alkaline Scrubber Equipment Parameters

Scrubber Type	Packed Bed Wet Scrubber
Scrubbant	Alkaline Liquid
Packing Material	No. 2 Super Interlocks
Packing Arrangement	Two 25 Foot beds
Outlet Gas Temp (°F)	150
Outlet Gas Flow Rate (ACFM)	23,000
Average Scrubbant pH	11-12
Scubbant Flow Rate (gpm)	1,000

PART B
PSD REPORT

ATTACHMENT A

1.0 INTRODUCTION

Georgia-Pacific Corporation (G-P) operates a Kraft pulp mill located in Palatka, Florida. As part of the paper making process, pulp bleaching is conducted at the facility. G-P currently operates two bleach plants at the Palatka Mill. This project proposes to replace the existing No. 1 and No. 2 Bleach Plants with a new bleach plant having an average monthly pulp production rate of 1,350 Air Dried Tons of Bleached Pulp (ADTBP) per day. The new bleach plant will be capable of a maximum daily pulp production of 1,702 ADTBP per day. The proposed No. 3 Bleach Plant will bleach pulp through the use of chlorine dioxide in place of elemental chlorine and sodium hypochlorite. The proposed bleach plant will consist of three stages. Chlorine dioxide, to be produced by the recently proposed new chlorine dioxide plant, will be sent to the first stage of the bleach plant, followed by caustic/hydrogen peroxide/oxygen in the second stage, and finally chlorine dioxide again in the third stage.

These proposed bleach plant and associated facility changes will not affect maximum pulp production or the operation of any other emission units at the facility. Current maximum permitted pulp production for the digester system at G-P is 1,850 ADTP/day as a monthly average. Currently the mill uses a combination of chlorine dioxide (ClO_2) and elemental chlorine to bleach pulp. Implementation of a totally elemental chlorine-free (ECF) process will help G-P meet the recently promulgated Maximum Achievable Control Technology (MACT) Standards promulgated for the pulp and paper industry, (referred to as MACT I or Cluster Rule). The Cluster Rule deadline for becoming ECF is April 16, 2001. While the conversion to ECF bleaching will achieve compliance with the Cluster Rule, it will also reduce color, conductivity, and biochemical oxygen demand in the mill's effluent. In addition, with the strategy of replacing the existing bleach plants with a new bleach plant will have the added benefit of reducing both water and chemical usage, which would not be possible by simply rebuilding the existing bleach plants.

The existing bleach plants have not previously been permitted, but were included in the recently submitted Title V permit application as unregulated emissions units. After accounting for emissions reductions from the existing plants, the proposed bleach plant will constitute a major modification at a major stationary source under federal and State air quality regulations. Therefore, the requirements of the Prevention of Significant Deterioration (PSD) New Source Review procedures pursuant to rules and regulations implementing the Clean Air Act (CAA) Amendments of 1977 are applicable.

This application contains six additional sections. A description of the proposed project and associated air emission rates is presented in Section 2.0. The air quality review requirements and source applicability of the proposed project in relation to regulatory requirements are discussed in Section 3.0. Preconstruction PSD ambient monitoring requirements are addressed in Section 4.0. The air quality impact analysis is presented in Section 5.0, while the Best Available Control Technology (BACT) analysis, required as part of the PSD permitting process, is presented in Section 6.0. The impacts of the project on soils, vegetation, and visibility are addressed in Section 7.0. Also included in this section are potential impacts upon federal PSD Class I areas. Supportive information is provided in the attachments.

2.0 PROJECT DESCRIPTION

2.1 BACKGROUND

G-P operates a Kraft pulp and paper mill located in Palatka, Florida. Processes and systems at the Mill include a batch digester system, multiple effect evaporator (MEE) system, condensate stripper system, recovery boiler and smelt dissolving tanks, lime kiln, tall oil plant, utilities, bleach plants, chlorine dioxide plant, and other equipment to produce finished paper products from virgin wood.

The proposed No. 3 Bleach Plant will have the ability to bleach either softwood or hardwood pulp with a capacity approximately equal to that of the two existing bleach plants. The new bleach plant will bleach the pulp in three stages, with a decker at the front of the sequence. The three stages consist of a D₁₀₀ stage (chlorine dioxide stage), an E_{OP} stage (caustic extraction with oxygen and peroxide), and a D stage (chlorine dioxide stage), resulting in a D₁₀₀ (E_{OP}) D sequence. Pulp to the bleach plant will be supplied from the existing No. 2 High Density (HD) chest for hardwood and from a new No. 3 HD chest for softwood. The proposed bleach plant will be designed for a monthly average production rate of 1,350 ADTBP per day and a maximum daily production rate of 1,702 ADTBP per day.

The proposed construction will include three major changes;

- Modification of the existing unbleached storage brown stock supply system
- Construction of a new No. 3 Bleach Plant as an ECF three-stage pressure washing style system, and

2.1.1 Unbleached Storage

The existing 500-ton No. 2 HD chest will be utilized for hardwood storage. Hardwood will normally be run on the No. 3 brownstock wash line.

A new 600-ton No. 3 HD chest will be installed for softwood. The No. 3 HD chest will be located adjacent to, and north of, the No. 2 HD chest. This will require relocation of the seal water cooling tower for the paper mill vacuum pumps. To facilitate the move, a new two-cell cooling tower will be erected north of the existing cooling tower along with the relocation of the water pumps to this site.

2.1.2 No. 3 Bleach Plant

The proposed No. 3 Bleach Plant will be an ECF three-stage D₁₀₀ (EOP)D pressure washing type system. The D₁₀₀ (EOP)D bleaching process represents: First stage chlorine dioxide addition (D), second stage caustic extraction with oxygen and hydrogen peroxide addition (EOP), and third stage chlorine dioxide addition (D).

The first bleaching stage will use chlorine dioxide, with sulfuric acid as necessary, to adjust the pulp pH. Caustic, hydrogen peroxide, and oxygen will be used in the second bleaching stage. The third stage will use ClO₂, with caustic or acid added as necessary to adjust the pulp pH.

The No. 3 Bleach Plant vent piping will tie into the existing bleach plant scrubber system. The flow of vent vapors will displace the flow from the No. 1 Bleach Plant, which will be permanently shut down. The scrubber will use sodium hydrogen sulfide (NaHS) and sodium hydroxide (NaOH) to control chlorine and chlorine dioxide emissions.

A flow diagram of the proposed ECF bleach plant operation is shown in Attachment GP-EU1-L1.

2.2 AIR EMISSIONS

Pollutants potentially emitted from the existing bleach plant include chlorine, ClO₂, methanol, chloroform, and carbon monoxide (CO). In addition, the National Council of the Paper Industry for Air and Stream Improvement, Incorporated (NCASI) has published study data documenting hazardous air pollutant (HAP) and volatile organic compound (VOC) emissions from select pulp mills similar to G-P's Palatka mill. These pollutants may emanate from vents in the No. 3 Bleach Plant, and will be sent to the existing bleach plant alkaline wet scrubber. ClO₂ is not a HAP, however, emissions of this pollutant are estimated because it is regulated under the Federal 112(r) rules governing risk management. Potential pollutant emissions estimates that follow are based on the available manufacturer's data for the existing bleach plant alkaline scrubber and emissions data presented in NCASI Technical Bulletin Nos. 679, 701, and 760.

2.2.1 Current Air Emissions

Current actual emission estimates from the bleach plants are presented in Table 2-1 for VOC and HAP emissions and Attachment 2-1 for CO emissions. Details of the basis for the actual emission estimates are presented in the following sections.

VOC and HAP Emissions

Actual VOC and HAP emissions from the existing Nos. 1 and 2 Bleach Plants are based on information provided in NCASI's Technical Bulletin No. 701 (TB 701), "Compilation of 'Air Toxic' and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, October 1995". Table 3 of this document contains VOC and HAP emissions data collected from 52 bleach plants around the United States. The document states that the "best approach for using the emission data in this report is to select the emission source from the list of sources given that most closely represents the emission source of concern [*i.e.*, similar process and bleaching sequence]." Since the existing bleaching sequence is similar to a chlorine first stage, caustic extraction second stage, and chlorine dioxide third stage (CED) sequence, mill code BPIB from Table 3 was selected as the basis for actual VOC and HAP emissions estimates.

The only pollutant emission estimate that is not based on information in NCASI is chlorine. Chlorine emissions are based on information provided by the existing alkaline scrubber manufacturer, Caldwell-McKay. Based on the manufacturer's minimum guarantee of 99% for chlorine gas scrubber removal efficiency and the manufacturer's maximum outlet chlorine emission rate of 0.6 pounds-per hour (lb/hr), maximum chlorine emissions are expected to be approximately 2.6 tons per year (TPY). In addition, VOC and HAP emissions are based on a monthly average pulp production rate of 780 ADTBP, derived from the average of the most representative 2-year production period (1995-1996) during the last five years, and the bleach plants' typical operating schedule. 1995 and 1996 were chosen to be the most representative 2-year production periods because the industries demand for G-P's final pulp product was the highest during this period over the last 5 years. The maximum estimated VOC and HAP emissions from the existing Nos. 1 and 2 Bleach Plants are 144.7 TPY and 143.8 TPY, respectively.

CO Emissions

CO emissions estimates for the existing Nos. 1 and 2 Bleach Plants were derived using slightly different approaches. No. 1 Bleach Plant typically processes hardwood and uses 0% ClO₂ substitution. On the

other hand, Bleach Plant No. 2 typically processes softwood using 15% to 20% ClO₂ substitution. CO emissions estimates for both plants were based on data presented in the recent NCASI document, Technical Bulletin No. 760 (TB 760) "Carbon Monoxide Emissions from Oxygen Delignification and Chlorine Dioxide Bleaching of Wood Pulp, July 1998".

TB 760 postulates that when bleaching with 0% ClO₂ substitution, CO emissions are very minor because CO is primarily formed when precursors from chlorine bleaching react with ClO₂. The data in TB 760 appears to support this theory. Therefore, since actual CO emissions estimates are being made in order to determine preconstruction review applicability, it was assumed that Bleach Plant No. 1 does not emit CO.

Bleach Plant No. 2 does, however, bleach with a minimal quantity of ClO₂ substitution. Actual CO emissions from Bleach Plant No. 2 were based on data for a mill that was similar in design and bleaching sequence to G-P's No. 2 Bleach Plant at 20% ClO₂ substitution. Using the total average pulp processed from the most representative 2-year production period (1995-1996), the estimated actual annual CO emissions were 48 TPY. The basis and calculations for the estimate are presented in Attachment 2-1.

2.2.2 Future Maximum Air Emissions

Potential future emission estimates from the proposed ECF No. 3 Bleach Plant are presented in Table 2-2 for VOC and HAP emissions and Attachment 2-2 for CO emissions. Details of the basis for the maximum emission estimates are presented in the following sections.

VOC and HAP Emission Estimates

VOC and HAP estimates were made from data presented in the following NCASI documents: Technical Bulletin No. 701, as mentioned previously, and Technical Bulletin No. 679 (TB 679) "Volatile Organic Emissions from Pulp and Paper Mill Sources Part V - Kraft Mill Bleach Plants, October 1994". Chlorine emission estimates were also based on design data provided by the alkaline scrubber manufacturer, Caldwell-McKay. The new bleach plant will utilize the existing bleach plant scrubber.

Future VOC and HAP emissions estimates are shown in Table 2-2. As indicated in TB 701, data were selected based on the Mill that most closely represented G-P's Palatka Mill in both design and bleaching sequence. Only two mills, mill codes BPF and BPME1, met this criteria. Where data for a specific

compound were not available from either of these mill codes, data from TB 679 was used. Annual emissions were based on the maximum future monthly average pulp production of 1,350 ADTBP per day. The maximum estimated future VOC and HAP emissions from the proposed ECF bleach plant are 80.7 tpy and 75.5 tpy, respectively.

Chlorine emissions were not based on data available in NCASI. Instead, data provided by the wet scrubber manufacturer was used. Based on the manufacturer's minimum guarantee of 99% for chlorine gas scrubber removal efficiency and a maximum chlorine inlet loading rate of 91.2 pounds per hour (lb/hr) at 1,350 ADTBP per day, maximum chlorine emissions are expected to be less than 4 tpy.

CO Emission Estimates

CO emissions estimates were based on data presented in the recent NCASI document TB 760 mentioned previously. As indicated in TB 760 conclusions, when "bleaching with 100% ClO₂, CO emissions appear to increase linearly with total percent ClO₂ applied on [the] pulp". However, "for hardwood pulps, bleach plant CO emissions appear relatively unaffected by the amount of ClO₂ applied above levels of about 1% ClO₂ on pulp". Therefore, for softwood, CO emissions were estimated using data for mills that were similar in design and bleaching sequence to G-P's Palatka Mill and using the estimated percent ClO₂ that will be applied to the pulp with the ECF bleaching process. The basis and calculations for the estimate are presented in Attachment 2-2.

Since no correlation appears to exist between CO emissions and percent ClO₂ applied on hardwood, an average CO emission factor was calculated from those mills listed in TB 760 that processed hardwood. Using the typical projected softwood and hardwood utilization rates of 65% and 35%, respectively and operating the ECF bleach plant at a maximum monthly average of 1,350 ADTBP per day, potential annual CO emissions were estimated to be 201 TPY.

Table 2-1. Estimated Actual VOC and HAP Emissions From the Existing Nos. 1 and 2 Bleach Plants, Georgia Pacific, Palatka Florida.

Pollutant Name	HAP?	VOC?	Avg Factor (lb/ADTBP) (a)	ADTBP/hr (b)	Emissions		HAP	VOC
					lb/hr	TPY	Emissions TPY	Emissions TPY
Acetaldehyde	YES	YES	9.50E-03	32.5	0.31	1.35	1.35	1.35
Acetophenone	YES	YES	ND	--	--	--	--	--
Acrolien	YES	YES	ND	--	--	--	--	--
Benzaldehyde	NO	YES	1.10E-03	32.5	0.04	0.16	--	0.16
Benzene	YES	YES	ND	--	--	--	--	--
Carbon Tetrachloride	YES	NO	ND	--	--	--	--	--
Chlorine (c)	YES	NO	--	--	0.60	2.63	2.63	--
Chlorine Dioxide (c)	NO	NO	--	--	1.20	5.26	--	--
Chlorobenzene	YES	YES	ND	--	--	--	--	--
o-Cresol	YES	YES	ND	--	--	--	--	--
Crotonaldehyde	NO	YES	ND	--	--	--	--	--
Chloroform	YES	YES	3.80E-01	32.5	12.35	54.09	54.09	54.09
Cumene	YES	YES	ND	--	--	--	--	--
Dimethyl Disulfide	NO	YES	ND	--	--	--	--	--
Dimethyl Sulfide	NO	YES	8.70E-03	32.5	0.28	1.24	--	1.24
Ethanol	NO	YES	1.50E-02	32.5	0.49	2.14	--	2.14
Ethyl Benzene	YES	YES	ND	--	--	--	--	--
Formaldehyde	YES	YES	ND	--	--	--	--	--
n-Hexane	YES	YES	ND	--	--	--	--	--
Isopropanol	NO	YES	ND	--	--	--	--	--
Methanol	YES	YES	6.00E-01	32.5	19.50	85.41	85.41	85.41
Methyl Ethyl Ketone	YES	YES	ND	--	--	--	--	--
Methyl Isobutyl Ketone	YES	YES	ND	--	--	--	--	--
Methyl Mercaptan	NO	YES	ND	--	--	--	--	--
Methylene Chloride	YES	YES	ND	--	--	--	--	--
Phenol	YES	YES	ND	--	--	--	--	--
Propionaldehyde	YES	YES	2.50E-03	32.5	0.08	0.36	0.36	0.36
Terpines	NO	YES	ND	--	--	--	--	--
Toluene	YES	YES	ND	--	--	--	--	--
1,1,1-Trichloroethane (Methyl Chloroform)	YES	YES	ND	--	--	--	--	--
1,1,2-Trichloroethane	YES	YES	ND	--	--	--	--	--
Trichloroethylene	YES	YES	ND	--	--	--	--	--
M&P-Xylene	YES	YES	ND	--	--	--	--	--
O-Xylene	YES	YES	ND	--	--	--	--	--

ND = Non Detectable

Total = 143.84 144.74

ADTBP = Air Dried Tons of Bleached Pulp

lb/hr = pounds per hour

TPY = tons per year

(a) All emission factors (except chlorine and chlorine dioxide) are based on data in NCASI Technical Bulletin No. 701: Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills. Mill Code BPIB is most representative of the existing CED bleach plant at Georgia Pacific's Palatka mill. Non-detectable limits not used.

(b) Based on a monthly average production rate of 780 ADTBP per day divided by 24 hours per day operation.

(c) Based on design information provided by scrubber manufacturer. Emissions based on 780 ADTBP per day, 60 lb/hr uncontrolled chlorine and 120 lb/hr uncontrolled chlorine dioxide, and 99% scrubber removal efficiency.

Attachment 2-1. Potential CO Emissions Estimates from the Existing Bleach Plant.

No. 1 Bleach Plant bleaches pulp using 0% ClO2 substitution.
No. 2 Bleach Plant bleaches pulp using between 15% and 20% ClO2 substitution.

A. No. 1 Bleach Plant

Based on NCASI TB 760, "At 0% [ClO2] substitution, most of the CO was formed in the D1 stage with only small quantities formed in the C, E1, and D2 stages...lower amounts of CO were generated in the D1 stage."

Therefore, for PSD purposes and to be conservative, it was assumed that no CO emissions are produced when bleaching in No. 1 Bleach Plant with 0% ClO2 substitution.

B. No. 2 Bleach Plant

Based on NCASI, Estimated CO Emissions from CEDED Bleaching as follows:

CO Emissions From Softwood Processing				CO emissions for 20% ClO2 substitution based on average between 10 and 30 % ClO2 Substitution.
Mill Code	CO lbs/ODTUP	CO lbs/ADTUP	CO lbs/ADTBP	
AA	0.565	0.51	0.55	

Conversion Factors:

$$\text{lb/ODTUP} \times 0.90 = \text{lb/ADTUP}$$

$$\text{For softwood lb/ADTUP} = 0.92 \times \text{lb/ADTBP}$$

Source: NCASI Technical Bulletin 760. Mill Code AA for Softwood.

C. Total Estimated Annual CO Emissions from Proposed Existing Bleach Plant:

No. 1 Bleach Plant typically processes hardwood and
No. 2 Bleach Plant typically processes softwood.

Maximum pulp production rate based on average of most representative 2-year production period (1995-1996) in the last 5-years. Max air dried bleached pulp production = 268,279 TPY ADTBP.

Based on a processing rate for softwood of 65% and 35% for hardwood:

$$\text{SW} = 65\% \times 268,279 \text{ TPY} = 174,381 \text{ TPY}$$

$$\text{HW} = 35\% \times 268,279 \text{ TPY} = 93,898 \text{ TPY}$$

$$\text{TOTAL CO emissions} = [(93,898 \text{ TPY} \times 0 \text{ lb/ADTBP}) + (174,381 \text{ TPY} \times 0.55 \text{ lb/ADTBP})] / 2000 \text{ lb/Ton}$$

$$= 48 \text{ TPY CO}$$

Table 2-2. Estimated HAP and VOC Emissions From Proposed No. 3 Bleach Plant, Georgia Pacific, Palatka Florida.

Pollutant Name	HAP?	VOC?	Avg Factor (lb/ADTBP) (a)	Maximum ADTBP/hr (b)	Average ADTBP/hr (c)	Emissions		HAP Emissions		VOC Emissions	
						lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Acetaldehyde	YES	YES	ND	--	--	--	--	--	--	--	--
Benzene	YES	YES	1.80E-04	70.9	54.2	0.01	0.04	0.01	0.04	0.01	0.04
Carbon Tetrachloride	YES	NO	ND	--	--	--	--	--	--	--	--
Chlorine (d)	YES	NO	--	--	--	0.91	3.99	0.91	3.99	--	--
Chlorine Dioxide (d)	NO	NO	--	--	--	2.14	9.38	--	--	--	--
Chlorobenzene	YES	YES	2.10E-04	70.9	54.2	0.01	0.05	0.01	0.05	0.01	0.05
Chloroform (e)	YES	YES	8.19E-03	70.9	54.2	0.58	1.94	0.58	1.94	0.58	1.94
1,2-Dichloroethane (Ethylene Dichloride)	YES	YES	ND	--	--	--	--	--	--	--	--
Dimethyl Sulfide	NO	YES	ND	--	--	--	--	--	--	--	--
Formaldehyde (f)	YES	YES	ND	--	--	--	--	--	--	--	--
Methanol	YES	YES	2.90E-01	70.9	54.2	20.57	68.81	20.57	68.81	20.57	68.81
Methyl Ethyl Ketone	YES	YES	6.70E-04	70.9	54.2	0.05	0.16	0.05	0.16	0.05	0.16
Methyl Isobutyl Ketone	YES	YES	4.50E-04	70.9	54.2	0.03	0.11	0.03	0.11	0.03	0.11
Methyl Mercaptan	NO	YES	3.80E-02	70.9	54.2	2.69	9.02	--	--	2.69	9.02
Methylene Chloride	YES	YES	ND	--	--	--	--	--	--	--	--
Alpha-Pinene	NO	YES	4.70E-04	70.9	54.2	0.03	0.11	--	--	0.03	0.11
Beta-Pinene	NO	YES	2.20E-04	70.9	54.2	0.02	0.05	--	--	0.02	0.05
Styrene	YES	YES	3.50E-04	70.9	54.2	0.02	0.08	0.02	0.08	0.02	0.08
Tetrachloroethylene	YES	YES	ND	--	--	--	--	--	--	--	--
Toluene	YES	YES	1.70E-04	70.9	54.2	0.01	0.04	0.01	0.04	0.01	0.04
1,2,4-Trichlorobenzene	YES	YES	5.00E-04	70.9	54.2	0.04	0.12	0.04	0.12	0.04	0.12
1,1,1-Trichloroethane (Methyl Chloroform)	YES	YES	ND	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	YES	YES	ND	--	--	--	--	--	--	--	--
Trichloroethylene	YES	YES	ND	--	--	--	--	--	--	--	--
M&P-Xylene	YES	YES	4.80E-04	70.9	54.2	0.03	0.11	0.03	0.11	0.03	0.11
O-Xylene	YES	YES	2.70E-04	70.9	54.2	0.02	0.06	0.02	0.06	0.02	0.06

ND = Non Detectable

ADTBP = Air Dried Tons of Bleached Pulp

ODTBP = Oven Dried Tons of Bleached Pulp

lb/hr = pounds per hour

TPY = tons per year

Total = 22.29 75.52 24.12 80.71

(a) All emission factors (except chlorine, chlorine dioxide, chloroform and formaldehyde) based on data in NCASI Technical Bulletin No. 701: Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills. Mill Codes BPF and BPME1 are most representative of the proposed ECF bleach plant at Georgia Pacific's Palatka mill. If values were given for both mill codes, then the values were averaged. Non-detectable limits not used.

(b) Based on a maximum production rate of 1,702 ADTBP (short-term operation) per day divided by 24 hours per day operation.

This value is used to calculate short-term emissions (lb/hr).

(c) Based on a maximum monthly average production rate of 1,350 ADTBP (long-term operation) per day divided by 24 hours per day operation.

This value is used to calculate long-term emissions (TPY).

(d) Based on design information provided by scrubber manufacturer. Emissions based on 1,350 ADTBP per day, 91.2 lb/hr uncontrolled chlorine and 214.25 lb/hr uncontrolled chlorine dioxide, and 99% scrubber removal efficiency.

(e) Based on data in NCASI Technical Bulletin No. 679: Volatile Organic Emissions From Pulp and Paper Mill Sources, Part V - Kraft Mill Bleach Plants. Mill Code E *c* Line is most representative of the proposed ECF bleach plant at Georgia Pacific's Palatka mill. Chloroform emission factor converted to lb/ADTBP using the following formula: $9.1 \text{ e-}3 \text{ lb/ODTBP} * (0.90 \text{ ODTBP/ADTBP}) = 8.19 \text{ e-}3 \text{ lb/ADTBP}$.

(f) Based on data in NCASI Technical Bulletin No. 701: Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills. Formaldehyde data based on Mill Code BPMN.

Attachment 2-2. Potential CO Emissions Estimates Based on ECF Bleach Plant Design Data.

A. Derivation of CO Emission Factor for Softwood Bleaching

CO Emissions From Softwood Processing			
% ClO ₂ Applied	CO lbs/ODTUP	CO lbs/ADTUP	CO lbs/ADTBP
1.18	0.62	0.56	0.61
1.43	0.93	0.84	0.91
2.67	0.85	0.77	0.84
3.39	1.02	0.92	1.00

Nomenclature:

ODTUP = Oven Dried Tons of Unbleached Pulp

ADTUP = Air Dried Tons of Unbleached Pulp

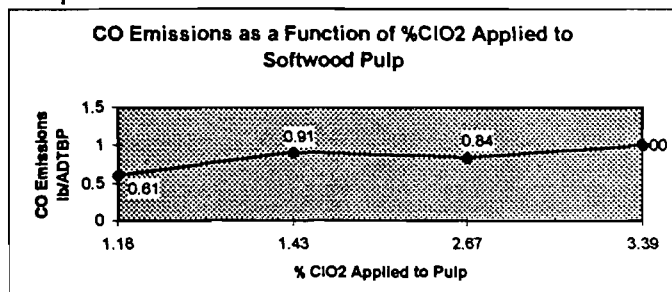
ADTBP = Air Dried Tons of Bleached Pulp

Conversion Factors for a Given Amount of CO:

$\text{lb/ODTUP} \times 0.90 = \text{lb/ADTUP}$

For softwood $\text{lb/ADTUP} = 0.92 \times \text{lb/ADTBP}$

Example Here



Source: NCASI Technical Bulletin 760. Mill Codes B, C, G for Softwood.

Short-Term (Peak) CO Emission Factor (Softwood)

Proposed ECF bleach plant peak ClO₂ to be applied to the pulp is 3.57%.

Linear Interpolation of CO Emissions at 3.57% ClO₂ Applied to Pulp from NCASI TB760 Mills B, C, and G:

Slope of line = $\text{CO} / \% \text{ClO}_2 = (1.0 - 0.61) / (3.39 - 1.18) = 0.176$

Given $y = mx + b$

$y = (0.176 \times (3.57 - 1.18)) + 0.61$

$y = 1.03 \text{ lb CO / ADTBP}$

Long-Term (Average) CO Emission Factor (Softwood)

Proposed ECF bleach plant average ClO₂ to be applied to the pulp is 2.89%.

Linear Interpolation of CO Emissions at 2.89% ClO₂ Applied to Pulp from NCASI TB760 Mills B, C, and G:

Slope of line = $\text{CO} / \% \text{ClO}_2 = (1.0 - 0.61) / (3.39 - 1.18) = 0.176$

Given $y = mx + b$

$y = (0.176 \times (2.89 - 1.18)) + 0.61$

$y = 0.91 \text{ lb CO / ADTBP}$

B. Derivation of CO Emission Factor for Hardwood Bleaching

CO Emissions From Hardwood Processing			
Mill Code	CO lbs/ODTUP	CO lbs/ADTUP	CO lbs/ADTBP
B	0.65	0.59	0.63
C	0.88	0.79	0.84
SA12	0.54	0.49	0.52
SE2	0.64	0.58	0.62
SH2	0.63	0.57	0.61

Average 0.67 0.60 0.64

Conversion Factors:

lb/ODTUP X 0.90 = lb/ADTUP

For Hardwood lb/ADTUP = 0.94 X lb/ADTBP

Source: NCASI Technical Bulletin 760.

Mills B, C, SA12, SE2, SH2 process hardwood with 100% ClO₂ substitution.

C. Potential Hourly CO Emissions from Proposed ECF Bleach Plant (For Modeling Purposes):

Based on an estimated maximum pulp production rate of 1,702 ADTBP per day and assuming a processing rate for softwood of 65% and 35% for hardwood:

SW = 65% X 1,702 ADTBP/day = 1,106.3 ADTBP/day

HW = 35% X 1,702 ADTBP/day = 595.7 ADTBP/day

TOTAL CO emissions = [(595.7 ADTBP/day X 0.64 lb/ADTBP) + (1106.3 ADTBP/day X 1.03 lb/ADTBP)]/24 hr/day
= 63.4 lb/hr CO

D. Total Potential Annual CO Emissions from Proposed ECF Bleach Plant:

Based on an estimated monthly average pulp production rate of 1,350 ADTBP per day and assuming a processing rate for softwood of 65% and 35% for hardwood:

SW = 65% 1,350 ADTBP/day = 877.5 ADTBP/day

HW = 35% 1,350 ADTBP/day = 472.5 ADTBP/day

TOTAL CO emissions = [(472.5 ADTBP/day X 0.64 lb/ADTBP) + (877.5 ADTBP/day X 0.91 lb/ADTBP)] X 365 days/yr X ton/2000 lbs
= 201 TPY CO

3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to federal and state New Source Review requirements and their applicability to Georgia-Pacific's proposed project. These requirements must be satisfied before construction can begin on the proposed project.

3.1 NATIONAL AND STATE AAQS

The existing applicable national and Florida ambient air quality standards (AAQS) are presented in Table 3-1. National primary AAQS were promulgated to protect the public health, and national secondary AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air. Areas of the country in violation of AAQS are designated as non-attainment areas, and new sources to be located in or near these areas may be subject to more stringent air permitting requirements.

3.2 PSD REQUIREMENTS

3.2.1 General Requirements

Under federal and State of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the CAA must be reviewed and a pre-construction permit issued. Florida's State Implementation Plan (SIP), which contains PSD regulations, has been approved by the U.S. Environmental Protection Agency (EPA); therefore, PSD approval authority has been granted to the Florida Department of Environmental Protection (FDEP).

A "major facility" is defined under Florida PSD regulations as any one of 28 named source categories that has the potential to emit 100 tpy or more of any pollutant regulated under the CAA, or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under the CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant, considering the application of control equipment and any other federally enforceable limitations on the emission units' capacity.

A "major modification" is defined under PSD regulations as a change at an existing major stationary facility that increases emissions by greater than significant amounts. PSD significant emission rates are shown in Table 3-2.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Major new facilities and major modifications are required to undergo the following analyses related to PSD for each pollutant emitted in significant amounts:

1. Source impact analysis,
2. Control technology review,
3. Air quality analysis (monitoring),
4. Source information / good engineering practice stack height (GEP) , and
5. Additional impact analyses.

In addition to these analyses, if the proposed new source or modification is located in a non-attainment area for any pollutant, the source may be subject to non-attainment New Source Review requirements.

Discussions concerning each of these requirements are presented in the following sections.

3.2.2 Source Impact Analysis

The 1977 CAA amendments address the Prevention of Significant Deterioration (PSD) of air quality. The law specifies that certain increases in air quality concentrations above the baseline concentration level of sulfur dioxide SO₂ and total suspended particulate matter [PM(TSP)] would constitute significant deterioration. The magnitude of the allowable increment depends on the classification of the area in which a new source (or modification) will be located or will have an impact. Congress also directed EPA to evaluate PSD increments for other criteria pollutants and, if appropriate, promulgate PSD increments for such pollutants.

Three classifications were designated based on criteria established in the CAA amendments. Certain types of areas (international parks, national wilderness areas, memorial parks larger than 5,000 acres, and national parks larger than 6,000 acres) were designated as Class I areas. All other areas of the country were designated as Class II. PSD increments for Class III areas were defined, but no areas were

designated as Class III. However, Congress made provisions in the law to allow the redesignation of Class II areas to Class III areas. PSD increments for Class III areas are higher than those for Class II areas.

In 1978, EPA promulgated PSD regulations related to the requirements for classifications, increments, and area designations as set forth by Congress. PSD increments were initially set for only SO₂ and PM(TSP). However, in 1988, EPA promulgated final PSD regulations for NO_x and established PSD increments for nitrogen dioxide (NO₂). On June 3, 1993, EPA promulgated PSD increments for particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM₁₀). The PM₁₀ increments replaced the PM(TSP) increments.

The current federal PSD increments are shown in Table 3-1. As shown, Class I increments are the most stringent, allowing the smallest amount of air quality deterioration, while the Class III increments allow the greatest amount of deterioration. FDEP has adopted the EPA class designations and allowable PSD increments for PM₁₀, SO₂, and NO₂.

A source impact analysis must be performed for a proposed major facility or major modification subject to PSD for each pollutant for which the increase in emissions exceeds the significant emission rates shown in Table 3-2 [Rule 62-212.400(5)(d) F.A.C.]. The PSD regulations specifically provide for the use of atmospheric dispersion models in performing impact analyses, estimating baseline and future air quality levels, and determining compliance with AAQS and allowable PSD increments. Designated EPA models normally must be used in performing the impact analysis. Specific applications for other than EPA-approved models require EPA's consultation and prior approval.

Guidance for the use and application of dispersion models is presented in the EPA publication Guideline on Air Quality Models (EPA, 1987b). The source impact analysis for criteria pollutants can be limited to the new or modified facility if the net increase in impacts as a result of the new or modified source is below the modeling significance levels, as presented in Table 3-1.

Various lengths of record for meteorological data can be used for impact analyses. A 5-year period can be used with corresponding evaluation of highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The term "highest, second-highest" (HSH) refers to the highest of the second-highest concentrations at all receptors (*i.e.*, the highest concentration at each receptor is discarded). The second-highest concentration is significant because short-term AAQS specify that the standard should not be exceeded at any location more than once a year. If less than 5 years of meteorological data are used in the modeling analysis, the highest concentration at each receptor must normally be used for comparison to air quality standards.

The term "baseline concentration" evolves from federal and State PSD regulations and refers to a fictitious concentration level corresponding to a specified baseline date and certain additional baseline sources. In reference to the baseline concentration, the baseline date actually includes three different dates:

1. The major source baseline date, which is January 6, 1975, in the cases of SO₂ and PM₁₀, and February 8, 1988, in the case of NO₂;
2. The minor source baseline date, which is the earliest date after the trigger date on which a major stationary facility or major modification subject to PSD regulations submits a complete PSD application; and
3. The trigger date, which is August 7, 1977, for SO₂ and PM₁₀, and February 8, 1988, for NO₂.

By definition in the PSD regulations, baseline concentration means the ambient concentration level that exists in the baseline area at the time of the applicable baseline date. A baseline concentration is determined for each pollutant for which a baseline date is established and includes:

1. The actual emissions representative of facilities in existence on the applicable minor source baseline date, and
2. The allowable emissions of major stationary facilities that began construction before January 6, 1975, for SO₂ and PM₁₀ sources, or February 8, 1988, for NO_x sources, but which were not in operation by the applicable baseline date.

The following emissions are not included in the baseline concentration and, therefore, affect PSD increment consumption:

1. Actual emissions representative of a major stationary facility on which construction began after January 6, 1975, for SO₂ and PM₁₀ sources, and after February 8, 1988, for NO_x sources; and
2. Actual emission increases and decreases at any stationary facility occurring after the major source baseline date that result from a physical change or change in the method of operation of the facility.

The minor source baseline date for SO₂ and PM₁₀ has been set as December 27, 1977, for the entire State of Florida [Rule 62-212.400, F.A.C.]. The minor source baseline date for NO₂ has been set as March 28, 1988, for all of Florida.

3.2.3 Control Technology Review

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that BACT be applied to control emissions from the source. The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate (see Table 3-2).

BACT is defined in 40 CFR 52.21 (b)(12), as:

An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.

BACT was promulgated within the framework of the PSD requirements in the 1977 amendments to the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in EPA's *Guidelines for Determining Best Available Control Technology (BACT)* (EPA, 1978) and in the *PSD Workshop Manual* (EPA, 1980). These guidelines were published by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area may not be identical to BACT in another area. According to EPA (1980), "BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis."

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with New Source Performance Standards (NSPS) for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

Historically, a "bottom-up" approach consistent with the BACT Guidelines and PSD Workshop Manual has been used. With this approach, an initial control level, which is usually NSPS, is evaluated against successively more stringent controls until a BACT level is selected. However, EPA developed a concern that the bottom-up approach was not providing the level of BACT decisions originally intended. As a result, in December 1987, the EPA Assistant Administrator for Air and Radiation mandated changes in the implementation of the PSD program, including the adoption of a new "top-down" approach to BACT decision making.

The top-down BACT approach essentially starts with the most stringent (or top) technology and emissions limit that have been applied elsewhere to the same or a similar source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose to use it. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (e.g., fuel type), locational differences (e.g., availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility on which the control technique was applied previously must be justified. EPA has issued a draft guidance document on the top-down approach entitled *Top-Down Best Available Control Technology Guidance Document* (EPA, 1990).

3.2.4 Air Quality Monitoring Requirements

In accordance with requirements of 40 CFR 52.21(m) and FDEP Rule 62-212.400(5)(f), F.A.C, any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-2).

Ambient air monitoring for a period of up to 1 year is generally appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing data from the vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in EPA's Ambient Monitoring Guidelines for Prevention of Significant Deterioration (EPA, 1987a).

FDEP may exempt a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts less than the *de minimis* monitoring levels presented in Table 3-2 [FDEP Rule 62-212.400, F.A.C.].

3.2.5 Source Information / Good Engineering Practice Stack Height

The 1977 CAA amendments require that the degree of emission limitation required for control of any pollutant not be affected by a stack height that exceeds GEP or any other dispersion technique. On July 8, 1985, EPA promulgated final stack height regulations (EPA, 1985). Identical regulations have been adopted by FDEP [Rule 62-210.550, F.A.C.]. GEP stack height is defined as the highest of:

1. 65 meters (m); or
2. A height established by applying the formula:

$$H_g = H + 1.5L$$

where: H_g = GEP stack height,

H = Height of the structure or nearby structure, and

L = Lesser dimension (height or projected width) of nearby structure(s); or

3. A height demonstrated by a fluid model or field study.

"Nearby" is defined as a distance up to five times the lesser of the height or projected width dimensions of a structure or terrain feature but not greater than 0.8 kilometer (km). Although GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height, the actual stack height may be greater.

3.2.6 Additional Impact Analyses

In addition to air quality impact analyses, federal and State of Florida PSD regulations require analysis of the impairment to visibility and the impacts on soils and vegetation that would occur as a result of the proposed or modified facility [40 CFR 52.21; FDEP Rule 62-212.400(5)(e), F.A.C.]. These analyses are to be conducted primarily for PSD Class I areas. Impacts from general commercial, residential, industrial, and other growth associated with the facility or modification also must be addressed. These analyses are required for each pollutant emitted in significant amounts (Table 3-2).

3.3 NON-ATTAINMENT RULES

Based on the current non-attainment provisions (FDEP Rule 62-212.500, F.A.C.), all major new facilities and modifications to existing major facilities located in a non-attainment area must undergo non-attainment review if the proposed pieces of equipment have the potential to emit 100 TPY or more of the non-attainment pollutant, or if the modification results in a significant net emission increase of the non-attainment pollutant.

For major facilities or major modifications that locate in an attainment or unclassifiable area, the non-attainment review procedures apply if the source or modification is located within the area of influence of a non-attainment area. The area of influence is defined as an area that is outside the boundary of a non-attainment area but within the locus of all points that are 50 km outside the boundary of the non-attainment area. Based on FDEP Rule 62-212.500(2)(a), F.A.C., all VOC facilities or emission units that are located within an area of influence are exempt from the provisions of New Source Review for non-attainment areas. Facilities or emissions units that emit other non-attainment pollutants and are located within the area of influence are subject to non-attainment review unless the maximum allowable emissions do not have a significant impact within the non-attainment area.

3.4 SOURCE APPLICABILITY

3.4.1 PSD Review

Pollutant Applicability

The G-P Kraft pulp mill is located in Putnam County, which has been designated by EPA and FDEP as an attainment area for all criteria pollutants. Putnam County and surrounding counties are designated as PSD Class II areas for SO₂, PM₁₀, and NO₂.

The G-P facility is considered to be an existing major stationary facility because potential emissions of certain regulated pollutants exceed 100 TPY. As a result, PSD review is required for the proposed modification for each pollutant for which the net increase in emissions exceeds the PSD significant emission rates presented in Table 3-2 (*i.e.*, a major modification).

Historically, FDEP and EPA have required that current actual emissions be compared with future maximum emissions (not future actual emissions) to determine PSD source applicability. This analysis is

also to consider any contemporaneous emission changes at the facility that occurred within the past 5 years or since the last PSD permit was issued for a particular pollutant. CO, VOC and Total Reduced Sulfur (TRS) are the only two PSD-regulated pollutants emitted by the proposed No.3 Bleach Plant. Current actual emissions are shown in Table 2-1 and Attachment 2-1. Future maximum emissions are shown in Table 2-2 and Attachment 2-2. There have been no contemporaneous emission changes at the facility, for these pollutants, since issuance of the last PSD permit for the facility in 1995. The PSD applicability analysis, based on this method, is presented in Table 3-3.

As shown in Table 3-3, the increase in CO emissions, based on comparing current actual emissions and future maximum emissions, will exceed the PSD significant emission rate. Therefore, FDEP/EPA may determine that the proposed project is subject to PSD review for CO. For purposes of minimizing the permit review time by FDEP, it will be assumed that the project is subject to PSD review for CO.

Ambient Monitoring

A comparison of the total CO impact due to the proposed project and the *de minimis* monitoring concentrations is presented in Table 3-4. This comparison is only presented for CO since it is the only pollutant that is subject to PSD review for the proposed project. The maximum future CO emissions were modeled instead of the net increase in emissions in order to be conservative. Since the future maximum impact of CO from the No.3 Bleach Plant is less than the *de minimis* monitoring concentration for G-P's proposed project, a PSD preconstruction ambient monitoring analysis is not required for CO.

GEP Stack Height Analysis

The GEP stack height regulations allow any stack to be at least 65 m [213 feet (ft)] high. All sources being modified at G-P are existing sources, with existing stacks. None of these sources exceeds GEP stack height based on the significant structures at the facility.

Best Available Control Technology

The federal PSD regulations [40 CFR 52.21(j)(3)] state that BACT is required for each pollutant for which the modification results in a net significant emissions increase. BACT must be applied to each emissions unit in which a net emissions increase in a PSD pollutant would occur as a result of a physical change or a change in the method of operation in the unit. As discussed in Section 2.0, the only

emissions units at G-P which is being physically changed or for which there will be a change in the method of operation is the new No. 3 Bleach Plant. No other systems are being physically modified or changed to accommodate the new source. As a result, BACT only applies to the No. 3 Bleach Plant. CO is the only PSD pollutant emitted by the bleach plant which must undergo BACT review.

3.4.2 Nonattainment Review

The G-P Mill is located in Putnam County, which has been designated as an attainment area for all pollutants. As a result, nonattainment review does not apply to the proposed project.

3.4.3 New Source Performance Standards

Federal New Source Performance Standards (NSPS) have been promulgated for Kraft Pulp Mills under 40 CFR 60, Subpart BB. The G-P Palatka Mill is classified as a Kraft pulp mill. However, the NSPS is only applicable to digester systems, multiple effect evaporators, condensate strippers, brown stock wasters, recovery boilers, smelt tanks, and lime kilns at the Mill. Since the proposed bleach plant is the only source being constructed, the NSPS is not applicable.

3.4.4 MACT Standards for the Pulp and Paper Industry

On April 15, 1998, National Emissions Standards for Hazardous Air Pollutants (NESHAPs) were established by the EPA for the pulp & paper industry (40 CFR 63, Subpart S). The NESHAPs, also referred to as the "Cluster Rule" because it comprehensively addresses air, water and solid waste discharges, sets MACT standards for air emissions from pulp and paper sources. The MACT standards for bleaching systems are codified in 40 CFR 63.445. The standards apply to all pulp and paper facilities that are major sources of HAPs.

The MACT standards apply to bleaching systems that use chlorine or chlorinated compounds. Since G-P's proposed new bleach plant will use 100 % chlorine dioxide substitution, and chlorine dioxide is a chlorinated compound, the MACT standards are applicable to G-P's proposed bleach plant. The standards must be complied with upon startup of the new bleach plant [40 CFR 63.440(c)(3)].

The bleaching system standards require that the equipment at each bleaching stage where chlorinated compounds are introduced be enclosed and vented to a closed-vent system and routed to a control device that meets one of the following (40 CFR 63.445):

1. Reduces total chlorinated HAPs by 99% or more;
2. Achieves an outlet concentration of 10 ppmv or less of total chlorinated HAPs; or
3. Achieves an outlet mass emission rate of total chlorinated HAPs of 0.002 lb/ton oven-dried pulp (ODP) or less.

G-P will meet this requirement by utilizing a wet caustic scrubber designed to achieve an overall minimum removal efficiency of 99% for chlorinated HAPs. The associated enclosures and closed-vent system must meet the requirements of 40 CFR 63.450. These requirements include maintaining negative pressure at each enclosure or hood opening, or, wherever a positive pressure component is utilized, it must be operated with no detectable leaks (*i.e.*, less than 500 ppmv above background).

Continuous monitoring system (CMS) requirements include measuring gas scrubber parameters. The parameters which must be monitored for gas scrubbers consist of pH of the gas scrubber liquid effluent, vent gas inlet flow rate, and scrubber liquid influent flow rate [40 CFR 63.453(c)]. During the initial performance tests of the system, scrubber parameter values, averaging time and monitoring frequency must be established, with approval from the Administrator [40 CFR 63.453(n)]. Periodic inspections of the closed-vent system are also required. Recordkeeping and reporting requirements are contained in 40 CFR 63.454 and 63.455, respectively, of the MACT Rule. G-P will comply with the provisions of the MACT rule upon start-up of the bleach plant.

3.4.5 State Of Florida Emission Standards

There are no State of Florida emission limiting standards applicable to the proposed project. FDEP Rule 62-296.320(2), F.A.C., provides general pollutant standards for objectionable odors from air pollutant emitting sources. The proposed bleach plant is subject to these requirements. The requirement is as follows: "No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor." G-P will comply with this regulation in regards to the bleach plant.

Table 3-1. National and State AAQS, Allowable PSD Increments, and Significance Levels

Pollutant	Averaging Time	AAQS ($\mu\text{g}/\text{m}^3$)			PSD Increments ($\mu\text{g}/\text{m}^3$)		Significant Impact Levels ($\mu\text{g}/\text{m}^3$)
		Primary Standard	Secondary Standard	State of Florida	Class I	Class II	
Particulate Matter (PM10)	Annual Arithmetic Mean	50	50	50	4	17	1
	24-Hour Maximum	150 ^b	150 ^b	150 ^a	8	30	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum	365 ^b	NA	260 ^a	5	91	5
	3-Hour Maximum	NA	1,300 ^b	1,300 ^a	25	512	25
Carbon Monoxide	8-Hour Maximum	10,000 ^b	10,000 ^b	10,000 ^a	NA	NA	500
	1-Hour Maximum	40,000 ^b	40,000 ^b	40,000 ^a	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone	1-Hour Maximum ^c	235	235	235	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	15	NA	NA	NA

Note: AAQS = Ambient Air Quality Standards.
 NA = Not applicable, i.e., no standard exists.
 Particulate matter (PM10) = Particulate matter with aerodynamic diameter less than or equal to 10 micrometers.
 PSD = Prevention of significant deterioration.
 $\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter.

^aMaximum concentration not to be exceeded more than once per year.

^bAchieved when the expected number of exceedances per year is less than 1.

^cAchieved when the expected number of days per year with concentrations above the standard is less than 1.

Sources: 40 CFR 50.
 40 CFR 52.21.
 Rule 62-272, F.A.C.

Table 3-2. PSD Significant Emission Rates and *De Minimis* Monitoring Concentrations

Pollutant	Regulated Under	Significant Emission Rate (TPY)	<i>De Minimis</i> Monitoring Concentration ($\mu\text{g}/\text{m}^3$)
Sulfur Dioxide	NAAQS, NSPS	40	13, 24-hour
Particulate Matter (TSP)	NSPS	25	10, 24-hour
Particulate Matter (PM10)	NAAQS	15	10, 24-hour
Nitrogen Oxides	NAAQS, NSPS	40	14, annual
Carbon Monoxide	NAAQS, NSPS	100	575, 8-hour
Volatile Organic Compounds (Ozone)	NAAQS, NSPS	40	100 TPY ^a
Lead	NAAQS	0.6	0.1, 3-month
Sulfuric Acid Mist	NSPS	7	NM
Fluorides	NSPS	3	0.25, 24-hour
Total Reduced Sulfur	NSPS	10	—
Reduced Sulfur Compounds	NSPS	10	—
Hydrogen Sulfide	NSPS	10	0.2, 1-hour
Asbestos	NESHAP	0.007	NM
Beryllium	NESHAP	0.0004	0.001, 24-hour
Mercury	NESHAP	0.1	0.25, 24-hour
Vinyl Chloride	NESHAP	1	15, 24-hour

Note: Ambient monitoring requirements for any pollutant may be exempted if the impact of the increase in emissions is below *de minimis* monitoring concentrations.

NAAQS = National Ambient Air Quality Standards.

NESHAP = National Emission Standards for Hazardous Air Pollutants.

NM = No ambient measurement method.

NSPS = New Source Performance Standards.

PM10 = Particulate matter with aerodynamic diameter less than or equal to 10 micrometers.

PSD = prevention of significant deterioration.

TPY = tons per year.

TSP = total suspended particulate matter.

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

^aNo *de minimis* concentration; an increase in VOC emissions of 100 TPY or more will require monitoring analysis for ozone.

Source: Rule 62-212.400, F.A.C.

Table 3-3. Net Emissions Increase Associated with the Proposed Project, Georgia-Pacific Palatka Operations

Regulated Pollutant	Current Actual Emissions (TPY)	Future Maximum Emissions (TPY)	Net Increase In Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
Particulate matter (TSP)	--	--	--	25	No
Particulate matter (PM10)	--	--	--	15	No
Sulfur dioxide	--	--	--	40	No
Nitrogen oxides	--	--	--	40	No
Carbon monoxide	48.0	201.0	153.0	100	Yes
Volatile organic compounds	144.7	80.7	-64.0	40	No
Sulfuric acid mist	--	--	--	7	No
Total reduced sulfur (a)	--	9.0	9.0	10	No
Lead	--	--	--	0.6	No
Mercury	--	--	--	0.1	No
Beryllium	--	--	--	0.0004	No
Fluorides	--	--	--	3	No
Asbestos	--	--	--	0.007	No
Vinyl Chloride	--	--	--	1	No

(a) Based on methyl mercaptan emissions, which are included in total reduced sulfur compound.

Table 3-4. Comparison of Maximum Future Impact of the No. 3 Bleach Plant to the *De Minimis* Monitoring Concentration

Pollutant	Impact Due to Future Proposed Project ^a ($\mu\text{g}/\text{m}^3$)	<i>De Minimis</i> Monitoring Concentration ($\mu\text{g}/\text{m}^3$)	Preconstruction Ambient Monitoring Analysis Required?
Carbon Monoxide	182, 8-hour	575, 8-hour	No

^a Impact presented is for maximum CO emissions from No. 3 Bleach Plant.

Source: Golder Associates Inc., 1999.

4.0 AIR QUALITY MODELING APPROACH

4.1 GENERAL MODELING APPROACH

The general modeling approach follows EPA and FDEP modeling guidelines for determining compliance with AAQS and PSD increments. In general, when model predictions are used to determine compliance with AAQS and PSD increments, current policies stipulate that the highest annual average and highest, second-highest short-term (*i.e.*, 24 hours or less) concentrations be compared to the applicable standard when 5 years of meteorological data are used. The highest, second-highest concentration (HSH) is calculated for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

This approach is consistent with the air quality standards, which permit a short-term average concentration to be exceeded once per year at each receptor.

To develop the maximum short-term concentrations for the G-P facility, the general modeling approach is to first perform a screening analysis with a coarse receptor grid spacing to determine the critical impact locations. Concentrations for the screening analysis are predicted using a 5-year meteorological data record. After a final list of HSH short-term concentrations is developed from the screening analysis, a refined analysis is performed if the receptor spacing at the screening receptor of maximum impact is greater than 100 meters. The refined analyses uses a denser receptor grid centered on the receptor at which the HSH concentration produced from the screening phase. The air dispersion model is then executed for the entire year(s) during which both the highest and second-highest concentrations were predicted to occur at that receptor, based on the screening analysis results. More detailed descriptions of the emission inventory and receptor grids used in the screening and refined phases of the analysis are presented in the following sections.

4.2 MODEL SELECTION

The selection of an appropriate air dispersion model was based on the model's ability to simulate impacts in areas surrounding the G-P site. Within 50 km of the site, the terrain can be described as simple, (*i.e.*, flat to gently rolling). As defined in EPA modeling guidelines, simple terrain is considered to be an area where the terrain features are all lower in elevation than the top of the stack(s) under evaluation. Therefore, a simple terrain model was selected to predict maximum ground-level concentrations.

The Industrial Source Complex Short-term (ISCST3, Version 98356) dispersion model (EPA, 1995, rev, 1998) was used to evaluate all pollutant emissions for this project. This model is maintained on the EPA's Technical Transfer Network (TTN) internet web site. The ISCST3 model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. The ISCST3 model is designed to calculate hourly concentrations based on hourly meteorological parameters (*i.e.*, wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The hourly concentrations are processed into non-overlapping, short-term and annual averaging periods. For example, a 24-hour average concentration is based on twenty-four, 1-hour concentrations calculated from midnight to midnight of each day. For each short-term averaging period selected, the highest and second-highest average concentrations are calculated for each receptor.

Major features of the ISCST3 model are presented in Table 4-1. The ISCST3 model has both rural and urban mode options which affect the wind speed profile exponent law, dispersion rates, and mixing-height formulations used in calculating ground-level concentrations. The criteria used to determine when the rural or urban mode is appropriate are based on land-use near the source's surroundings (Auer, 1978). If the land-use is classified as heavy industrial, light-moderate industrial, commercial, or compact residential for more than 50 percent of the area within a 3-km radius circle centered on the site location, the urban option should be selected. Otherwise, the rural option is more appropriate.

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The regulatory default options include:

1. Final plume rise at all receptor locations,
2. Stack-tip downwash,
3. Buoyancy-induced dispersion,

4. Default wind speed profile coefficients for rural or urban option,
5. Default vertical potential temperature gradients, and
6. Calm wind processing.

In this analysis, the EPA regulatory options were used to address maximum impacts. Based on a review of the land use around G-P, the rural mode was selected based on the degree of residential, industrial, and commercial development within 3 km of the site.

4.3 METEOROLOGICAL DATA

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations from the National Weather Service (NWS) station at Jacksonville International Airport and twice-daily upper air soundings from the NWS at Waycross, Georgia. The 5-year period of meteorological data was from 1984 through 1988. The NWS station at Jacksonville, located approximately 91 km due north of the G-P site, was selected for use in the study because it is the closest primary weather station to the study area which is representative of the plant site.

The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling. The wind speed, cloud cover, and cloud ceiling values were used in the ISCST meteorological preprocessor program to determine atmospheric stability using the Turner stability scheme. Based on the temperature measurements at morning and afternoon, mixing heights were calculated with the radiosonde data using the Holzworth (1972) approach. Hourly mixing heights were derived from the morning and afternoon mixing heights using the interpolation method developed by EPA (Holzworth, 1972).

The hourly surface data and mixing heights were used to develop a sequential series of hourly meteorological data (*i.e.*, wind direction, wind speed, temperature, stability class, and mixing heights). Because the observed hourly wind directions were classified into one of thirty-six 10-degree sectors, the wind directions were randomized within each sector to account for the expected variability in air flow. These calculations were performed by using the EPA PCRAMMET meteorological preprocessor program.

4.4 BUILDING DOWNWASH CONSIDERATIONS

The potential for building downwash to occur was evaluated for all source/structure combinations at the G-P Palatka facility. Those structures evaluated are presented in Table 4-2. A plot plan showing building and stack locations is presented in Attachments GP-FI-E2a and GP-FI-E2b. The EPA's Building Profile Input Program (BPIP, version 95086) was used to determine direction-specific building heights and widths for each G-P stack that was evaluated in the air modeling analysis.

4.5 SIGNIFICANT IMPACT ANALYSIS

4.5.1 Methodology

The proposed project's increase in emission rates will exceed the PSD significant emission rates for CO only. Therefore, a significant impact analysis was performed only for that pollutant. As a conservative comparison, the maximum CO impact due to the future maximum CO emissions from the No. 3 Bleach Plant was compared with CO significant impact levels.

4.5.2 Source Inventory

The stack parameters used in the significant impact analysis are presented in Table 4-3. Future maximum emission rates for CO (63.4 lb/hr; 201 TPY) are presented in Attachment 2-2. To provide conservative modeled impacts, the maximum future emissions from the No.3 Bleach Plant were modeled for comparison to significant impact levels.

4.5.3 Receptors

G-P Plant Vicinity

A total of 236 receptors were used in the significant impact analysis. These receptors were placed along 36 polar radials spaced 10 degrees apart and centered on the TRS incinerator location at G-P. The innermost receptors along each radial were located on the G-P plant property boundary. Additional receptors were located along each radial at offsite distances of 700, 1,100, 1,500, 2,000, 2,500, 3,000, 3,500, 4,000, and 5,000 meters. The plant property boundary receptors used in the significant impact analysis are presented in Table 4-4.

Class I Areas

Because allowable PSD increments do not exist for CO, the Class I modeling analysis was performed only for the Air Quality Related Value (AQRV) assessment. The nearest PSD Class I area to the G-P Palatka Mill is the Okefenokee National Wildlife Refuge (ONWR), located approximately 111 km north-northwest of the G-P Palatka Mill. A second PSD Class I area, the Wolf Island NWR, is located approximately 150 km north of the G-P Palatka Mill. Eleven receptors were used to predict CO impacts at these two PSD Class I areas. Ten of the 11 receptors were located along the southern and eastern boundaries of the Okefenokee NWR. One additional receptor was located at the Wolf Island NWR. A list of these receptors is presented in Table 4-5.

4.5.4 Results

Significant Impact Analysis

Results of the significant impact screening analyses for CO are summarized in Table 4-6. Because the maximum predicted impacts from the screening analysis were less than half of the EPA significant impact levels, additional refinements were not performed. The maximum 8-hour and 1-hour CO impacts of 182 and 367 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), respectively, are below the significant impact levels of 500 and 2,000 $\mu\text{g}/\text{m}^3$, respectively. Because the CO impacts do not exceed the significant impact levels, an additional analysis comparing CO impacts to NAAQS analysis is not required.

Table 4-1. Major Features of the ISCST3 Model

ISCST3 Model Features

- Polar or Cartesian coordinate systems for receptor locations
- Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
- Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
- Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects
- Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
- Separation of multiple emission sources
- Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
- Capability of simulating point, line, volume, area, and open pit sources
- Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
- Variation of wind speed with height (wind speed-profile exponent law)
- Concentration estimates for 1-hour to annual average times
- Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain
- Consideration of time-dependent exponential decay of pollutants
- The method of Pasquill (1976) to account for buoyancy-induced dispersion
- A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
- Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.

Note: ISCST3 = Industrial Source Complex Short-Term.
Source: EPA, 1995.

Table 4-2. Building Structures Used in the G-P Palatka Modeling Analysis

	Actual Building Dimensions					
	Height		Length		Width	
	(ft)	(m)	(ft)	(m)	(ft)	(m)
#3 Machine Building	84.5	25.8	270	82.3	207	63.1
#5 Machine Building	70.5	21.5	315	96.0	100	30.5
#4 Machine Building	73.0	22.3	270	82.3	142	43.3
#1&2 Machine Buildings/ Refiner	71.17	21.7	408	124.4	224	68.3
Digester	62.17	18.9	266	81.1	24	7.3
Powerhouse	107.6	32.8	106	32.3	92	28.0
Recovery Building	193.67	59.0	102	31.1	88	26.8
Multwall	56.67	17.3	236	71.9	170	51.8
Kraft Warehouse	56.17	17.1	278	84.7	272	82.9
Tech Services	61.75	18.8	176	53.6	48	14.6
Washers	71.0	21.6	112	34.1	65	19.8

Table 4-3. Georgia-Pacific Source Location and Operating Parameters Used in the Modeling Analysis

Emission Unit ID	Emission Unit	Relative Location (a)				Stack Parameters				Operating Parameters			
		X		Y		Height		Diameter		Temperature		Velocity	
		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(°F)	(°K)	(ft/s)	(m/s)
Bleach Plant 3 (Future)	Scrubber	359.0	109.3	464.0	141.5	118.0	36.0	4.0	1.22	150.0	338.7	30.5	9.30

(a) Relative to TRS Incinerator stack location and relative to true north

Table 4-4. Summary of Direction-Specific Distances From the ECF Bleach Plant to G-P Plant Property Boundaries

Direction (Degrees)	Distance (m)	Direction (Degrees)	Distance (m)
10	5,000	190	750
20	4,500	200	1,829
30	2,500	210	1,829
40	2,500	220	1,981
50	1,500	230	2,134
60	1,500	240	2,438
70	1,500	250	2,896
80	838	260	3,048
90	686	270	3,658
100	533	280	3,962
110	457	290	4,572
120	457	300	5,182
130	457	310	4,801
140	457	320	4,875
150	457	330	6,000
160	488	340	5,500
170	533	350	5,250
180	610	360	5,125

Table 4-5. Wolf Island and Okefenokee NWR Receptors Used in the Modeling Analysis

PSD Class I Area	UTM Coordinates	
	East (km)	North (km)
Wolf Island NWR	470.5	3459.0
Okefenokee NWR	391.0	3417.0
Okefenokee NWR	390.0	3410.0
Okefenokee NWR	392.0	3400.0
Okefenokee NWR	390.0	3395.0
Okefenokee NWR	391.0	3390.0
Okefenokee NWR	390.0	3384.0
Okefenokee NWR	383.0	3382.0
Okefenokee NWR	378.0	3382.0
Okefenokee NWR	374.0	3383.0
Okefenokee NWR	370.0	3383.0

Table 4-6. Maximum Predicted CO Concentrations for the Proposed No. 3 Bleach Plant

Averaging Time	Concentration ($\mu\text{g}/\text{m}^3$)	Receptor Location ^a		Period Ending (YYMMDDH H)
		Direction (deg)	Distance (m)	
High 24-Hour	79.8	110	457	84111224
	69.1	110	457	85040224
	59.7	130	457	86122024
	78.8	110	457	87011324
	106.5	100	533	88121724
High 8-Hour	118.8	100	533	84090108
	116.3	110	457	85053108
	182.2	140	457	86110308
	149.9	130	457	87081008
	150.5	110	457	88112324
High 3-Hour	181.4	110	457	84082803
	171.5	100	533	85012306
	181.9	80	838	86010306
	209.5	100	533	87093021
	220.1	100	533	88121321
High 1-Hour	272.4	110	457	84082802
	367.4	180	610	85101707
	297.7	110	457	86062621
	291.3	110	457	87061715
	320.5	160	488	88101307

Note: YY = Year.
MM = Month.
DD = Day.
HH = Hour.

^aAll receptor coordinates are relative to the G-P TRS Incinerator Stack Location.

5.0 BEST AVAILABLE CONTROL TECHNOLOGY REQUIREMENTS

In the case of the proposed modification at G-P, only CO requires BACT analysis for the proposed No. 3 Bleach Plant. The following section presents the BACT analysis for CO.

5.1 BACT FOR CO FROM NO. 3 BLEACH PLANT

CO is a byproduct that is formed when bleaching pulp in a pulp mill. It has been known for some time that CO is formed in the stages of a chlorine, caustic extraction, and chlorine dioxide (CEDED) bleaching sequence. This sequence is similar to the sequence used in G-P's existing bleaching process. However, until recently, it was not known how much CO formation could be expected from bleaching using up to 100% ClO₂ substitution (NCASI TB 760, 1998).

Based on studies performed by NCASI, it has been postulated that CO formation from ClO₂ substitution occurs as a result of the synergistic reaction between ClO₂ and certain precursors formed from bleaching with chlorine. The results of the studies do not show a correlation between CO formation and percent ClO₂ substitution. However, there is evidence to show that, when using 100% ClO₂ substitution, CO emissions appear to increase linearly with the total percent ClO₂ applied on the pulp. Therefore, it would appear that when bleaching using an ECF bleaching process (*i.e.*, 100% ClO₂ substitution), CO formation may be reduced by reducing the amount of ClO₂ applied to the pulp. This would suggest that CO emissions from the ECF bleaching process could be "controlled" by maintaining the percentage of ClO₂ applied to the pulp at minimum levels that would ensure proper bleaching of the pulp. Thus, ensuring efficient use of ClO₂ and efficient operation of the bleaching process would minimize CO emissions.

As part of the BACT analysis, the EPA's BACT Clearinghouse database was searched for instances of similar BACT determinations for CO emissions from bleach plants. Only one other such determination was found. The determination was made by the Mississippi Department of Environmental Quality in September 1996 for Weyerhaeuser's Kraft pulp mill in Columbus (Permit No. 1680-00044, September 10, 1996). The final BACT determination to control CO emissions was to ensure efficient operations of the bleach plant.

In addition, key researchers of bleach plant CO emission studies for NCASI were queried as to the most effective means of control of CO emissions from ECF bleach plants. The consensus was that the most effective method to control CO emissions is to maintain efficient operations of the bleach plant.

Based on this information, G-P is proposing "efficient bleaching operations" as a work practice to minimize CO emissions from the proposed No. 3 Bleach Plant. No other feasible or practical means of CO emissions control or reduction has been applied to pulp mill CO emissions.

6.0 ADDITIONAL IMPACT ANALYSIS

6.1 INTRODUCTION

The modification at the Palatka facility is subject to the PSD new source review requirements for CO. The additional impact analysis and the Class I area analysis address this pollutant.

The analysis addresses the potential impacts on vegetation, soils, and wildlife in the surrounding area and at the nearest two PSD Class I areas due to G-P's proposed modification. Due to the distance from G-P, the Okefenokee NWR area would potentially receive much higher impacts than would the Wolf Island NWR. Therefore, only the Okefenokee NWR is addressed in this analysis.

The analysis will demonstrate that the increase in impacts due to the proposed increase in CO emissions is extremely low. Regardless of the existing conditions in the vicinity of the site or in the Class I areas, the proposed project will not cause any adverse impacts due to the predicted low impacts upon these areas.

6.2 SOIL, VEGETATION, AND AQRV ANALYSIS METHODOLOGY

In the foregoing analysis, the maximum air quality impacts predicted to occur in the vicinity of the G-P plant and in the Class I area due to the No. 3 Bleach Plant are used. The Industrial ISCST3 model (Version 98356) was used to compute maximum concentration. Maximum impacts in the vicinity of the G-P plant and in the Class I areas were predicted at the same receptor grids as discussed in Section 4.0. Meteorological data used in the ISCST3 consisted of the same 5-year record used for the significant impact analysis. Emissions from the G-P plant and stack data are provided in Section 4.0.

The analysis involved predicting worst-case maximum short- and long-term concentrations of pollutants in the vicinity of the plant and in the PSD Class I areas and comparing the maximum predicted concentrations to lowest observed effect levels for AQRVs or analogous organisms. In conducting the assessment, several assumptions were made as to how pollutants interact with the different matrices, (*i.e.*, vegetation, soils, wildlife, and aquatic environment).

A screening approach was used to evaluate potential effects, which compared the maximum predicted ambient concentrations of air pollutants of concern with effect threshold limits for both vegetation and

wildlife as reported in scientific literature. A literature search was conducted which specifically addressed the effects of air contaminants on plant species reported to be present in the vicinity of the plant and the Class I area. It was recognized that effects threshold information is not available for all species found in the Okefenokee NWA, although studies have been performed on a few of the common species and on other similar species which can be used as models. In conducting the assessment, both direct (fumigation) and indirect (soil accumulation/uptake) exposures were considered for flora, and direct exposure (inhalation) was considered for wildlife.

6.3 IMPACTS TO SOILS, VEGETATION, AND VISIBILITY IN VICINITY OF G-P PLANT

6.3.1 Predicted Air Quality Impacts

The results of the air quality modeling for the proposed G-P modification, in the vicinity of the plant, are presented in Table 6-1. Maximum predicted CO concentrations are presented for the annual, 24-hour, 8-hour, 3-hour, and 1-hour averaging times.

6.3.2 Impacts to Soils

In general, air contaminants can affect soils through fumigation by gaseous forms, accumulation of compounds transformed from the gaseous state, or by the direct deposition of particulate matter or particulate matter to which certain contaminants are absorbed. The soils in the vicinity of the G-P plant are generally a combination of sandy, poorly drained soils classified as Myakka-Zolfo-Immokalee and some organic soils classified as Terra Cecia-Shenks (USDA, 1985).

Because of the low predicted CO concentrations due to the proposed project, and the non-existence of reported effects to soils, no additional impacts to soils from CO are predicted.

6.3.3 Impacts to Vegetation

Vegetation Analysis

In general, the effects of air pollutants on vegetation occur primarily from SO₂, NO₂, O₃, and PM. Effects from minor air contaminants such as fluoride, chlorine, hydrogen chloride, ethylene, ammonia, hydrogen sulfide and CO have also been reported in the literature. The effects of air pollutants are dependent both on the concentration of the contaminant and the duration of the exposure. The term

"injury," as opposed to damage, is commonly used to describe all plant responses to air contaminants and will be used in the context of this analysis. Air contaminants are thought to interact primarily with plant foliage that is considered to be the major pathway of exposure.

Injury to vegetation from exposure to various levels of air contaminants can be termed acute, physiological, or chronic. Acute injury occurs as a result of a short-term exposure to a high contaminant concentration and is typically manifested by visible injury symptoms ranging from chlorosis (discoloration) to necrosis (dead areas). Physiological or latent injury occurs as the result of a long-term exposure to contaminant concentrations below that which results in acute injury symptoms. Chronic injury results from repeated exposure to low concentrations over extended periods of time, often without any visible symptoms, but with some effect on the overall growth and productivity of the plant. In this assessment, 100 percent of the particular air pollutant in the ambient air was assumed to interact with the vegetation. This is a conservative approach.

Carbon Monoxide

Concentrations of CO, even in polluted atmospheres, are not detrimental to vegetation (EPA, 1978a). CO has not been found to produce detrimental effects on plants at concentrations below 100 ppm ($1.15 \times 10^5 \mu\text{g}/\text{m}^3$) for exposures from 1 to 3 weeks (EPA, 1978a). When plants were fumigated at concentrations that cause effects, the effects included leaf growth effects at 500 ppm ($5.8 \times 10^5 \mu\text{g}/\text{m}^3$), and chlorosis and abscission in sensitive plants at 10,000 ppm ($11.5 \times 10^6 \mu\text{g}/\text{m}^3$). The predicted maximum concentrations at the project boundary shown in Table 6-1 are well below levels reported to cause any detrimental effects to vegetation.

6.3.4 Impacts Upon Visibility

The wet scrubber for the existing Nos. 1 and 2 Bleach Plants will be used for the future No. 3 Bleach Plant. As a result, no new point source of air emissions will be created. In addition, this source is in compliance with opacity regulations and should remain in compliance after the modification. As a result, no adverse impacts upon visibility are expected.

6.3.5 Impacts Due to Associated Population Growth

There will be a small, temporary increase in the number of workers during the construction period. There will be no significant increase in permanent employment at G-P as a result of the proposed project. Therefore, there will be no anticipated permanent impacts on air quality caused by associated population growth.

6.4 CLASS I AREA IMPACT ANALYSIS

6.4.1 Definition of AQRVS and Criteria Applied to Okefenokee NWA

The Okefenokee NWA is classified as a Class I area by the U.S. Fish and Wildlife Service (USFWS) for purposes of PSD new source review. The U.S. Department of the Interior (National Park Service) in 1978 administratively defined AQRVs for such areas as being:

All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way upon the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality.

Important attributes of an area are those values or assets that make an area significant as a natural monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside. (Federal Register, 1978)

6.4.2 AQRVS of Okefenokee NWA

To date, specific AQRVs, other than visibility have not been defined by the USFWS for the Okefenokee NWA (Ellen Porter, USFWS, Denver, CO, pers. comm., 1994). For this analysis, therefore, the AQRVs of this Class I area are defined as those important attributes of the Okefenokee NWA which are dependent upon the air environment, including water, soil, vegetation resources, and wildlife resources. Important aquatic, vegetation, and wildlife attributes of these areas which make the Okefenokee NWA significant are presented in Table 6-2. All terrestrial vegetation, including threatened and endangered plant species of the Okefenokee NWA, are dependent upon the air environment and are considered AQRVs. Some terrestrial wildlife and endangered and threatened wildlife are also considered AQRVs

for Okefenokee NWA . Threatened and endangered species associated with terrestrial habitats of the Okefenokee NWA are listed in Table 6-3.

6.4.3 Reported Air Quality Effects on Okefenokee NWA

No ecological effects to the attributes of the Okefenokee NWA have been recently reported (Sara Brown, USFWS, Folkston, GA; Robin Goodlow, USFWS, Brunswick, GA; and Ellen Porter, USFWS, Denver, CO, pers. comm., 1994). The reported general effects on aquatic, vegetation, and wildlife resources from significant degradation in air quality are described in Table 6-4.

6.4.4 Predicted Air Quality Impacts in the Class I Area

The results of the air quality modeling for the increase in emissions due to the G-P modification are presented in Table 6-5. Predicted air quality concentrations of CO are presented for Okefenokee NWA for the annual, 24-hour, 8-hour, 3-hour, and 1-hour averaging times. These concentrations reflect the total CO emissions due to the proposed No. 3 Bleach Plant.

6.4.5 Vegetation AQRVS Analysis

As discussed earlier, the effects of air pollutants on vegetation occur primarily from SO₂, NO₂, O₃, and PM. The effects from minor air contaminants, such as CO, have been reported in the literature. In general, the effects of air pollutants are dependent both on the concentration of the contaminant and the duration of the exposure. The term "injury," as opposed to damage, is commonly used to describe all plant responses to air contaminants and will be used in the context of this analysis. Air contaminants are thought to interact primarily with plant foliage that is considered to be the major pathway of exposure

Injury to vegetation from exposure to various levels of air contaminants can be termed acute, physiological, or chronic. Acute injury occurs as a result of a short-term exposure to a high contaminant concentration and is typically manifested by visible injury symptoms ranging from chlorosis (discoloration) to necrosis (dead areas). Physiological or latent injury occurs as the result of a long-term exposure to contaminant concentrations below that which results in acute injury symptoms. Chronic injury results from repeated exposure to low concentrations over extended periods of time, often without any visible symptoms, but with some effect on the overall growth and productivity of the plant. In this

AQRV assessment, 100 percent of the particular air pollutant in the ambient air was assumed to interact with the vegetation. This is a conservative approach.

Carbon Monoxide

Concentrations of CO, even in polluted atmospheres, are not detrimental to vegetation (EPA, 1978a). CO has not been found to produce detrimental effects on plants at concentrations below 100 ppm ($1.15 \times 10^5 \mu\text{g}/\text{m}^3$) for exposures from 1 to 3 weeks (EPA, 1978a). When plants were fumigated at concentrations that cause effects, the effects include leaf growth effects at 500 ppm ($5.8 \times 10^5 \mu\text{g}/\text{m}^3$), and chlorosis and abscission in sensitive plants at 10,000 ppm ($11.5 \times 10^6 \mu\text{g}/\text{m}^3$). The predicted maximum concentrations shown in Table 6-5 at the Okefenokee NWA boundary are much lower than any levels reported to cause any detrimental effects to vegetation.

6.4.6 Soils AQRV Analysis

Air contaminants can affect soils through fumigation by gaseous forms, accumulation of compounds transformed from the gaseous state, or by the direct deposition of particulate matter or particulate matter to which certain contaminants are absorbed. Gaseous fumigation of soils does not directly affect the soil but rather the organisms found in the soil. Concentrations several orders of magnitude higher than the predicted value are required before any adverse effects from fumigation are observed.

Due to the extremely low predicted CO impacts, no effects are predicted to occur to soils at the Okefenokee NWA from CO.

6.4.7 Wildlife AQRV Analysis

The predicted CO concentrations are well below the lowest observed effects levels (1000 – 2000 ppm) in animals (EPA, 1991) and pose no risk to wildlife AQRVs in the Class I area. Because predicted levels are below those known to cause effects to vegetation, there is also no risk to their habitat.

6.4.8 Visibility Impacts

Since the visibility criteria is not affected by CO emissions, the proposed project is predicted to have no adverse effects on visibility in the Class I area.

6.4.9 Summary

In summary, it is apparent that there is a very large margin of safety for the AQRVs of Okefenokee NWA with respect to the effects of the predicted increase in CO emissions at the Palatka Mill. Therefore, no significant adverse effects will occur to the AQRVs in the Okefenokee NWA due to the proposed modification of the G-P plant.

Table 6-1. Maximum Predicted Ambient Air Quality Concentrations From the Proposed No. 3 Bleach Plant Only in the Vicinity of the Georgia-Pacific Plant

Averaging Time	CO Concentration (g/m ³)
Highest 1-hour	367
Highest 3-hour	220
Highest 8-hour	182
Highest 24-hour	107

Table 6-2. Important Aquatic, Vegetational, and Wildlife Resource Attributes or AQRVs of Okefenokee NWA Dependent Upon the Air Environment

Attribute	Location
<u>Aquatic</u>	
Blackwater rivers, ponds, sloughs	Okefenokee NWA
<u>Vegetation</u>	
Ecological communities including:	
Cypress wetlands	Okefenokee NWA
Wet flatwoods	Okefenokee NWA
Bay-shrub bogs	Okefenokee NWA
Basin marshes	Okefenokee NWA
Mixed hardwood swamp	Okefenokee NWA
Unique ecological communities	
Old-growth cypress swamp	Okefenokee NWA
Unique plants	
Threatened and endangered species	Okefenokee NWA
Epiphytic plants including orchids and bromeliads	Okefenokee NWA
Air quality bioindicators - lichens	Okefenokee NWA
<u>Wildlife</u>	
Birds, mammals, reptiles and amphibians	Okefenokee NWA
Threatened and endangered species (see Table 6-3)	Okefenokee NWA

Note: NWA = National Wilderness Area.

Source: Golder Associates Inc., 1999.

Table 6-3. Federal and State Listed Endangered and Threatened Animals in the Okefenokee NWA Dependent Upon the Air Environment

Species	Designated Status	
	State ^a	USFWS ^b
Florida Black Bear	S4	C2
Arctic Peregrine Falcon	S1	-
Bachman's Warbler	E	E
Bald Eagle	E	E
Piping Plover	S1/S2	T
Red-Cockaded Woodpecker	E	E
Wood Stork	S2	E
American Alligator	-	T(S/A)
Eastern Indigo Snake	S3	T

^a State (Georgia) Status:

- E = endangered.
- S1 = regionally endangered.
- S2 = regionally threatened.
- S3 = regionally of concern.
- S4 = regionally apparently secure.

^b USFWS Status:

- C2 = candidate for listing, with some evidence of vulnerability, but for which not enough data exist to support listing.
- E = endangered.
- T = threatened.
- T(S/A) = threatened due to similarity of appearance.

Sources: U.S. Fish and Wildlife Service.
Georgia Freshwater Wetlands and Heritage Inventory Program.

Table 6-4. Reported General Effects on Aquatic, Vegetation, and Wildlife Resources From Significant Degradation in Air Quality

Attribute	Potential Effects and Associated Air Quality Change
Aquatic Resources	Acidification of waters and subsequent changes (loss and replacement) of ecological components; sensitive systems have low buffering capacity
Vegetation Resources	Most common effects include reduced growth, injury, and species replacement; species show specific sensitivity
Wildlife Resources	Potential effects include avoidance and increased body burdens of contaminants

Source: Golder Associates Inc., 1999.

Table 6-5. Maximum Predicted CO Concentrations due to the No. 3 Bleach Plant at the Okefenokee NWR Class I Areas

Averaging Time	Concentration ($\mu\text{g}/\text{m}^3$)	Receptor Location ^a		Period Ending
		UTM-E	UTM-N	(YYMMDDH H)
High 24-Hour	0.2	392000	3400000	84072924
	0.2	390000	3384000	85082124
	0.2	390000	3384000	86081324
	0.2	390000	3384000	87122524
	0.3	374000	3383000	88100324
High 8-Hour	0.5	383000	3382000	84071908
	0.4	391000	3417000	85022408
	0.5	390000	3384000	86081308
	0.6	390000	3384000	87122524
	0.9	374000	3383000	88100308
High 3-Hour	1.3	392000	3400000	84072909
	0.9	390000	3395000	85052009
	1.2	390000	3384000	86081309
	1.2	390000	3384000	87122524
	1.8	374000	3383000	88100309
High 1-Hour	3.9	392000	3400000	84072909
	2.8	390000	3395000	85052009
	3.5	390000	3384000	86081307
	2.7	370000	3383000	87112814
	5.1	374000	3383000	88100308

Note: YY = Year.
MM = Month.
DD = Day.
HH = Hour.

^aAll receptor coordinates are reported in Universal Transverse Mercator (UTM) Coordinates.

ATTACHMENT B

**PROPOSED NO. 3 BLEACH PLANT
MODELING OUTPUT**

**CLASS I AREA
MODELING RUNS**

SCST3 OUTPUT FILE NUMBER 1 :COCL1.084
 ISCST3 OUTPUT FILE NUMBER 2 :COCL1.085
 SCST3 OUTPUT FILE NUMBER 3 :COCL1.086
 SCST3 OUTPUT FILE NUMBER 4 :COCL1.087
 ISCST3 OUTPUT FILE NUMBER 5 :COCL1.088

First title for last output file is: 1984 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 Second title for last output file is: MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS

AVERAGING TIME	YEAR	CONC (ug/m3)	DIR (deg) or X (m)	DIST (m) or Y (m)	PERIOD ENDING (YYMMDDHH)
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SOURCE GROUP ID: ALL
 Annual

1984	0.00600	374000.	3383000.	84123124
1985	0.00569	383000.	3382000.	85123124
1986	0.00725	390000.	3384000.	86123124
1987	0.00521	390000.	3384000.	87123124
1988	0.00583	370000.	3383000.	88123124

HIGH 24-Hour

1984	0.19637	392000.	3400000.	84072924
1985	0.19352	390000.	3384000.	85082124
1986	0.17155	390000.	3384000.	86081324
1987	0.21600	390000.	3384000.	87122524
1988	0.29872	374000.	3383000.	88100324

HIGH 8-Hour

1984	0.51986	383000.	3382000.	84071908
1985	0.44140	391000.	3417000.	85022408
1986	0.51449	390000.	3384000.	86081308
1987	0.61661	390000.	3384000.	87122524
1988	0.85544	374000.	3383000.	88100308

HIGH 3-Hour

1984	1.30901	392000.	3400000.	84072909
1985	0.92161	390000.	3395000.	85052009
1986	1.16205	390000.	3384000.	86081309
1987	1.23322	390000.	3384000.	87122524
1988	1.76069	374000.	3383000.	88100309

HIGH 1-Hour

1984	3.92702	392000.	3400000.	84072909
1985	2.76482	390000.	3395000.	85052009
1986	3.48476	390000.	3384000.	86081307
1987	2.71799	370000.	3383000.	87112814
1988	5.13266	374000.	3383000.	88100308

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
SCRETE	0.00	0.00

CO STARTING
 CO TITLEONE 1984 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

SRCID	SRCTYP	XS	YS	ZS
** TRS INCINERATOR STACK IS ORIGIN ONLY				
BLEACH PLANT BYPASS STACK				
LOCATION	BLCHSCRB	POINT	434000	3283400 .0

Source Parameter Cards:

POINT:	SRCID	QS	HS	TS	VS	DS
** VOLUME:	SRCID	QS	HS	SYINIT	SZINIT	
** AREA:	SRCID	QS	HS	XINIT		
SO SRCPARAM	BLCHSCRB	8.0	36.0	338.7	9.30	1.22

BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
SO BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
SO BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
SO BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
SO BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
SO BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

SO EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

SO SRCGROUP ALL

SO FINISHED

RE STARTING

RE DISCCART 470500 3459000
 RE DISCCART 391000 3417000
 RE DISCCART 390000 3410000
 RE DISCCART 392000 3400000
 RE DISCCART 390000 3395000
 RE DISCCART 391000 3390000
 RE DISCCART 390000 3384000
 RE DISCCART 383000 3382000
 RE DISCCART 378000 3382000
 RE DISCCART 374000 3383000
 RE DISCCART 370000 3383000
 RE FINISHED

STARTING
ME INPUTFIL S:\MET\GNSPRL84.BIN UNFORM
ANEMHGT 22.00 FEET
SURFDATA 12816 1984 JACKSONVILLE
ME UAIRDATA 13861 1984 WAYCROSS
ME WINDCATS 1.50 3.10 5.10 8.20 10.80
FINISHED

STARTING
RECTABLE ALLAVE FIRST
OU FINISHED

*** SETUP Finishes Successfully ***

MODELOPTS: CONC

RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
BLCHSCRB	0	0.80000E+01	434000.0	3283400.0	0.0	36.00	338.70	9.30	1.22	YES	

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCR8,

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(470500.0, 3459000.0,	0.0,	0.0);	(391000.0, 3417000.0,	0.0,	0.0);
(390000.0, 3410000.0,	0.0,	0.0);	(392000.0, 3400000.0,	0.0,	0.0);
(390000.0, 3395000.0,	0.0,	0.0);	(391000.0, 3390000.0,	0.0,	0.0);
(390000.0, 3384000.0,	0.0,	0.0);	(383000.0, 3382000.0,	0.0,	0.0);
(378000.0, 3382000.0,	0.0,	0.0);	(374000.0, 3383000.0,	0.0,	0.0);
(370000.0, 3383000.0,	0.0,	0.0);			

MODELOPTS: CONC

RURAL FLAT

DFAULT

NOCMPL

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL84.BIN

FORMAT: UNIFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1984

YEAR: 1984

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-O	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
84	1	1	1	231.0	2.06	272.0	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	2	188.0	2.57	272.0	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	3	184.0	2.57	271.5	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	4	203.0	2.57	270.9	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	5	163.0	2.06	270.4	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	6	202.0	3.60	270.4	5	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	7	175.0	2.57	270.4	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	8	193.0	3.60	270.9	5	59.9	248.6	0.0000	0.0	0.0000	0	0.00
84	1	1	9	197.0	3.60	273.7	4	175.2	332.5	0.0000	0.0	0.0000	0	0.00
84	1	1	10	211.0	4.12	277.6	3	290.6	416.4	0.0000	0.0	0.0000	0	0.00
84	1	1	11	204.0	2.57	280.4	3	405.9	500.3	0.0000	0.0	0.0000	0	0.00
84	1	1	12	206.0	4.12	283.2	3	521.3	584.2	0.0000	0.0	0.0000	0	0.00
84	1	1	13	173.0	3.60	284.3	2	636.6	668.1	0.0000	0.0	0.0000	0	0.00
84	1	1	14	199.0	3.60	285.9	3	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	15	212.0	5.14	285.9	4	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	16	234.0	5.66	285.9	4	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	17	251.0	4.12	284.3	4	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	18	257.0	3.60	282.0	5	750.9	707.8	0.0000	0.0	0.0000	0	0.00
84	1	1	19	244.0	2.57	279.3	6	748.2	595.6	0.0000	0.0	0.0000	0	0.00
84	1	1	20	257.0	2.57	277.6	6	745.4	483.5	0.0000	0.0	0.0000	0	0.00
84	1	1	21	240.0	3.60	275.9	5	742.7	371.4	0.0000	0.0	0.0000	0	0.00
84	1	1	22	172.0	2.57	275.9	6	739.9	259.3	0.0000	0.0	0.0000	0	0.00
84	1	1	23	170.0	2.57	275.9	6	737.2	147.1	0.0000	0.0	0.0000	0	0.00
84	1	1	24	170.0	2.06	275.9	6	734.4	35.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO			IN (MICROGRAMS/CUBIC-METER)			**
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	
470500.00	3459000.00	0.00173	391000.00	3417000.00	0.00465	
390000.00	3410000.00	0.00502	392000.00	3400000.00	0.00521	
390000.00	3395000.00	0.00439	391000.00	3390000.00	0.00437	
390000.00	3384000.00	0.00424	383000.00	3382000.00	0.00434	
378000.00	3382000.00	0.00573	374000.00	3383000.00	0.00600	
370000.00	3383000.00	0.00521				

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.04414 (84032524)	391000.00	3417000.00	0.11036c (84072924)
390000.00	3410000.00	0.17193c (84072924)	392000.00	3400000.00	0.19637c (84072924)
390000.00	3395000.00	0.16238c (84072924)	391000.00	3390000.00	0.14571c (84072924)
390000.00	3384000.00	0.10289c (84062024)	383000.00	3382000.00	0.17329c (84071924)
378000.00	3382000.00	0.11463c (84082424)	374000.00	3383000.00	0.17562c (84082424)
370000.00	3383000.00	0.13459c (84082424)			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.12252 (84032508)	391000.00	3417000.00	0.27591 (84072916)
390000.00	3410000.00	0.42983 (84072916)	392000.00	3400000.00	0.49092 (84072916)
390000.00	3395000.00	0.40587 (84072916)	391000.00	3390000.00	0.36408 (84072916)
390000.00	3384000.00	0.32168c (84032008)	383000.00	3382000.00	0.51986c (84071908)
378000.00	3382000.00	0.32399c (84122408)	374000.00	3383000.00	0.49297c (84082408)
370000.00	3383000.00	0.37221c (84082408)			

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.35315	(84032509)	391000.00	3417000.00	0.73576c	(84072909)
390000.00	3410000.00	1.14620c	(84072909)	392000.00	3400000.00	1.30901c	(84072909)
390000.00	3395000.00	1.08026c	(84072909)	391000.00	3390000.00	0.96653c	(84072909)
390000.00	3384000.00	0.67807	(84070424)	383000.00	3382000.00	1.03971	(84071909)
378000.00	3382000.00	0.64943	(84060924)	374000.00	3383000.00	0.63793c	(84050624)
370000.00	3383000.00	0.71611c	(84050624)				

**MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.98017	(84032507)	391000.00	3417000.00	2.20729	(84072909)
390000.00	3410000.00	3.43860	(84072909)	392000.00	3400000.00	3.92702	(84072909)
390000.00	3395000.00	3.24077	(84072909)	391000.00	3390000.00	2.89959	(84072909)
390000.00	3384000.00	2.03422	(84070423)	383000.00	3382000.00	3.11910	(84071907)
378000.00	3382000.00	1.94831	(84060924)	374000.00	3383000.00	1.91379	(84050622)
370000.00	3383000.00	2.14832	(84050622)				

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	---------------------------------	---------	-----------------

L	1ST HIGHEST VALUE IS	0.00600 AT (374000.00, 3383000.00,	0.00, 0.00)	DC NA
	2ND HIGHEST VALUE IS	0.00573 AT (378000.00, 3382000.00,	0.00, 0.00)	DC NA
	3RD HIGHEST VALUE IS	0.00521 AT (370000.00, 3383000.00,	0.00, 0.00)	DC NA
	4TH HIGHEST VALUE IS	0.00521 AT (392000.00, 3400000.00,	0.00, 0.00)	DC NA
	5TH HIGHEST VALUE IS	0.00502 AT (390000.00, 3410000.00,	0.00, 0.00)	DC NA
	6TH HIGHEST VALUE IS	0.00465 AT (391000.00, 3417000.00,	0.00, 0.00)	DC NA
	7TH HIGHEST VALUE IS	0.00439 AT (390000.00, 3395000.00,	0.00, 0.00)	DC NA
	8TH HIGHEST VALUE IS	0.00437 AT (391000.00, 3390000.00,	0.00, 0.00)	DC NA
	9TH HIGHEST VALUE IS	0.00434 AT (383000.00, 3382000.00,	0.00, 0.00)	DC NA
	10TH HIGHEST VALUE IS	0.00424 AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	0.19637c ON 84072924: AT (392000.00, 3400000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

- *** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

*** ISCST3 - VERSION 98356 ***

*** 1984 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK

12/11/98 ***

01/28/99

*** MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS 1 RECEPTORS

11:34:04

PAGE 15

NOCMPL

**MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	--------------------	---------------------------------	---------	--------------------

LL	HIGH 1ST HIGH VALUE IS	0.51986c ON 84071908: AT (383000.00, 3382000.00,	0.00, 0.00)	DC NA
----	------------------------	----------------------------	------------------------	-------------	-------

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODEL OPTS: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	1.30901c ON 84072909: AT (392000.00, 3400000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

- *** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

*** ISCST3 - VERSION 98356 ***

*** 1984 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK

12/11/98 ***

01/28/99

*** MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS

11:34:04

PAGE 17

NOCMPL

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

LL	HIGH 1ST HIGH VALUE IS	3.92702	ON 84072909: AT (392000.00, 3400000.00, 0.00, 0.00)	DC	NA
----	------------------------	---------	--	----	----

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
 Total of 0 Warning Message(s)
 A Total of 1992 Informational Message(s)
 Total of 1992 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 *** NONE ***

 *** ISCST3 Finishes Successfully ***

CO STARTING
 CO TITLEONE 1985 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 BLEACH PLANT BYPASS STACK
 LOCATION BLCHSCRB POINT 434000 3283400 .0

Source Parameter Cards:

POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 ** AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22

	BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
SO BUILDHGT	BLCHSCRB		21.64	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB		25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB		25.76	25.76	25.76	18.95	21.64	21.49
SO BUILDHGT	BLCHSCRB		22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB		25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDWID	BLCHSCRB		102.55	103.66	101.63	29.38	36.02	35.44
SO BUILDWID	BLCHSCRB		37.92	100.84	103.51	103.03	99.42	92.78
SO BUILDWID	BLCHSCRB		83.33	71.35	68.68	81.13	91.11	98.33
SO BUILDWID	BLCHSCRB		102.55	103.66	101.63	29.38	178.89	97.90
SO BUILDWID	BLCHSCRB		90.32	100.84	103.51	103.03	99.42	92.78
SO BUILDWID	BLCHSCRB		83.33	71.35	68.68	81.13	91.11	98.33

SO EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

SO SRCGROUP ALL

FINISHED

RE STARTING

DISCCART 470500 3459000
 DISCCART 391000 3417000
 RE DISCCART 390000 3410000
 RE DISCCART 392000 3400000
 DISCCART 390000 3395000
 RE DISCCART 391000 3390000
 RE DISCCART 390000 3384000
 DISCCART 383000 3382000
 DISCCART 378000 3382000
 RE DISCCART 374000 3383000
 DISCCART 370000 3383000
 FINISHED

STARTING
ME INPUTFIL S:\MET\GNSPRL85.BIN UNFORM
ANEMHGHT 22.00 FEET
SURFDATA 12816 1985 JACKSONVILLE
ME UAIRDATA 13861 1985 WAYCROSS
ME WINDCATS 1.50 3.10 5.10 8.20 10.80
FINISHED

STARTING
RECTABLE ALLAVE FIRST
OU FINISHED

*** SETUP Finishes Successfully ***

MODELOPTs: CONC

RURAL FLAT

DEFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

--Simple Terrain Model is Selected

Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

Model Uses NO DRY DEPLETION. DDPLETE = F

Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

Model Uses RURAL Dispersion.

Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

Model Calculates 4 Short Term Average(s) of: 24-HR 8-HR 3-HR 1-HR
and Calculates PERIOD Averages

This Run Includes: 1 Source(s); 1 Source Group(s); and 11 Receptor(s)

The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNNING After the Setup Testing.

Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 6.71 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.1000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

Input Runstream File: COCL1.I85

**Output Print File: COCL1.O85

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
BLCHSCRB	0	0.80000E+01	434000.0	3283400.0	0.0	36.00	338.70	9.30	1.22	YES	

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

LL BLCHSCRB,

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCRB

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(470500.0, 3459000.0,	0.0,	0.0);	(391000.0, 3417000.0,	0.0,	0.0);
(390000.0, 3410000.0,	0.0,	0.0);	(392000.0, 3400000.0,	0.0,	0.0);
(390000.0, 3395000.0,	0.0,	0.0);	(391000.0, 3390000.0,	0.0,	0.0);
(390000.0, 3384000.0,	0.0,	0.0);	(383000.0, 3382000.0,	0.0,	0.0);
(378000.0, 3382000.0,	0.0,	0.0);	(374000.0, 3383000.0,	0.0,	0.0);
(370000.0, 3383000.0,	0.0,	0.0);			

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL85.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1985

YEAR: 1985

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-O	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
85	1	1	1	351.0	4.12	292.0	5	1628.0	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	2	338.0	3.09	292.0	5	1655.5	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	3	344.0	2.57	292.0	4	1683.0	1683.0	0.0000	0.0	0.0000	0	0.00
85	1	1	4	343.0	3.09	291.5	4	1710.4	1710.4	0.0000	0.0	0.0000	0	0.00
85	1	1	5	353.0	2.57	290.9	5	1737.9	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	6	352.0	1.00	289.3	6	1765.3	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	7	305.0	2.06	288.7	6	1792.8	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	8	313.0	2.06	289.3	5	158.1	370.7	0.0000	0.0	0.0000	0	0.00
85	1	1	9	307.0	2.57	292.0	4	462.6	639.7	0.0000	0.0	0.0000	0	0.00
85	1	1	10	351.0	4.63	295.4	3	767.0	908.8	0.0000	0.0	0.0000	0	0.00
85	1	1	11	344.0	7.20	297.6	4	1071.5	1177.8	0.0000	0.0	0.0000	0	0.00
85	1	1	12	336.0	3.60	297.6	4	1376.0	1446.9	0.0000	0.0	0.0000	0	0.00
85	1	1	13	343.0	5.14	298.7	4	1680.5	1715.9	0.0000	0.0	0.0000	0	0.00
85	1	1	14	59.0	2.57	298.7	4	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	15	342.0	4.12	299.3	3	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	16	324.0	4.12	299.3	3	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	17	321.0	4.12	298.7	4	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	18	307.0	1.54	295.9	5	1969.9	1892.9	0.0000	0.0	0.0000	0	0.00
85	1	1	19	314.0	1.00	293.2	6	1931.7	1659.4	0.0000	0.0	0.0000	0	0.00
85	1	1	20	297.0	2.57	293.2	6	1893.5	1425.9	0.0000	0.0	0.0000	0	0.00
85	1	1	21	320.0	4.63	293.2	5	1855.3	1192.4	0.0000	0.0	0.0000	0	0.00
85	1	1	22	332.0	3.60	292.6	5	1817.1	959.0	0.0000	0.0	0.0000	0	0.00
85	1	1	23	330.0	1.00	291.5	6	1778.9	725.5	0.0000	0.0	0.0000	0	0.00
85	1	1	24	330.0	1.00	290.9	7	1740.8	492.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
470500.00	3459000.00	0.00187	391000.00	3417000.00	0.00320
390000.00	3410000.00	0.00332	392000.00	3400000.00	0.00379
390000.00	3395000.00	0.00408	391000.00	3390000.00	0.00427
390000.00	3384000.00	0.00456	383000.00	3382000.00	0.00569
378000.00	3382000.00	0.00504	374000.00	3383000.00	0.00474
370000.00	3383000.00	0.00458			

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.05777c (85071224)	391000.00	3417000.00	0.15952c (85022424)
390000.00	3410000.00	0.09697c (85052024)	392000.00	3400000.00	0.12644c (85052024)
390000.00	3395000.00	0.14552c (85052024)	391000.00	3390000.00	0.14159c (85052024)
390000.00	3384000.00	0.19352c (85082124)	383000.00	3382000.00	0.11382c (85062924)
378000.00	3382000.00	0.16565c (85112924)	374000.00	3383000.00	0.14389c (85112924)
370000.00	3383000.00	0.09919c (85080824)			

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.14305c (85052016)	391000.00	3417000.00	0.44140c (85022408)
390000.00	3410000.00	0.26321c (85052016)	392000.00	3400000.00	0.35319c (85080108)
390000.00	3395000.00	0.39497c (85052016)	391000.00	3390000.00	0.38430c (85052016)
390000.00	3384000.00	0.40869c (85082124)	383000.00	3382000.00	0.34145c (85062908)
378000.00	3382000.00	0.39392c (85112908)	374000.00	3383000.00	0.36076c (85020108)
370000.00	3383000.00	0.34718c (85080808)			

MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.33660	(85071224)	391000.00	3417000.00	0.88280	(85022403)
390000.00	3410000.00	0.61413	(85052009)	392000.00	3400000.00	0.82412	(85080106)
390000.00	3395000.00	0.92161	(85052009)	391000.00	3390000.00	0.89671	(85052009)
390000.00	3384000.00	0.89242	(85103109)	383000.00	3382000.00	0.79671	(85062903)
378000.00	3382000.00	0.85874	(85112903)	374000.00	3383000.00	0.72152	(85020109)
370000.00	3383000.00	0.69425	(85080803)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	1.00981	(85071223)	391000.00	3417000.00	1.64699	(85022403)
390000.00	3410000.00	1.84240	(85052009)	392000.00	3400000.00	2.47236	(85080104)
390000.00	3395000.00	2.76482	(85052009)	391000.00	3390000.00	2.69013	(85052009)
390000.00	3384000.00	2.45211	(85082123)	383000.00	3382000.00	2.39014	(85062903)
378000.00	3382000.00	2.39906	(85080106)	374000.00	3383000.00	2.01333	(85020107)
370000.00	3383000.00	1.92758	(85080801)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS	0.00569 AT (383000.00, 3382000.00,	0.00, 0.00) DC	NA
	2ND HIGHEST VALUE IS	0.00504 AT (378000.00, 3382000.00,	0.00, 0.00) DC	NA
	3RD HIGHEST VALUE IS	0.00474 AT (374000.00, 3383000.00,	0.00, 0.00) DC	NA
	4TH HIGHEST VALUE IS	0.00458 AT (370000.00, 3383000.00,	0.00, 0.00) DC	NA
	5TH HIGHEST VALUE IS	0.00456 AT (390000.00, 3384000.00,	0.00, 0.00) DC	NA
	6TH HIGHEST VALUE IS	0.00427 AT (391000.00, 3390000.00,	0.00, 0.00) DC	NA
	7TH HIGHEST VALUE IS	0.00408 AT (390000.00, 3395000.00,	0.00, 0.00) DC	NA
	8TH HIGHEST VALUE IS	0.00379 AT (392000.00, 3400000.00,	0.00, 0.00) DC	NA
	9TH HIGHEST VALUE IS	0.00332 AT (390000.00, 3410000.00,	0.00, 0.00) DC	NA
	10TH HIGHEST VALUE IS	0.00320 AT (391000.00, 3417000.00,	0.00, 0.00) DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	0.19352c ON 85082124: AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

ALL	HIGH 1ST HIGH VALUE IS	0.44140c ON 85022408: AT (391000.00, 3417000.00,	0.00, 0.00)	DC NA
-----	------------------------	----------------------------	------------------------	-------------	-------

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 0.92161	ON 85052009	AT (390000.00, 3395000.00, 0.00, 0.00)	DC	NA

- ** RECEPTOR TYPES: GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

LL	HIGH 1ST HIGH VALUE IS	2.76482	ON 85052009: AT (390000.00, 3395000.00, 0.00, 0.00)	DC	NA
----	------------------------	---------	--	----	----

- *** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

*MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
 Total of 0 Warning Message(s)
 A Total of 1822 Informational Message(s)
 Total of 1822 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 *** NONE ***

 *** ISCST3 Finishes Successfully ***

D STARTING
 CO TITLEONE 1986 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS
 D MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 D DCAYCOEF .000000
 D RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

SRCID	SRCTYP	XS	YS	ZS
** TRS INCINERATOR STACK IS ORIGIN ONLY				
BLEACH PLANT BYPASS STACK				
LOCATION	BLCHSCRB POINT	434000	3283400	.0

Source Parameter Cards:

POINT:	SRCID	QS	HS	TS	VS	DS
** VOLUME:	SRCID	QS	HS	SYINIT	SZINIT	
** AREA:	SRCID	QS	HS	XINIT		
SO SRCPARAM	BLCHSCRB	8.0	36.0	338.7	9.30	1.22

BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
SO BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
SO BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
SO BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
SO BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

SO EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

SO SRCGROUP ALL

FINISHED

RE STARTING

DISCCART	470500	3459000
DISCCART	391000	3417000
RE DISCCART	390000	3410000
RE DISCCART	392000	3400000
DISCCART	390000	3395000
RE DISCCART	391000	3390000
RE DISCCART	390000	3384000
DISCCART	383000	3382000
DISCCART	378000	3382000
RE DISCCART	374000	3383000
RE DISCCART	370000	3383000
FINISHED		

STARTING

ME INPUTFIL S:\MET\GNSPRL86.BIN

UNFORM

ME ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1986 JACKSONVILLE

ME UAIRDATA 13861 1986 WAYCROSS

ME WINDCATS 1.50 3.10 5.10 8.20 10.80

FINISHED

STARTING

RECTABLE ALLAVE FIRST

OU FINISHED

*** SETUP Finishes Successfully ***

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE	
											SCALAR	VARY BY
BLCHSCRB	0	0.80000E+01	434000.0	3283400.0	0.0	36.00	338.70	9.30	1.22	YES		

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCRB,

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK				
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZFLAG)

(METERS)

(470500.0, 3459000.0,	0.0,	0.0);	(391000.0, 3417000.0,	0.0,	0.0);
(390000.0, 3410000.0,	0.0,	0.0);	(392000.0, 3400000.0,	0.0,	0.0);
(390000.0, 3395000.0,	0.0,	0.0);	(391000.0, 3390000.0,	0.0,	0.0);
(390000.0, 3384000.0,	0.0,	0.0);	(383000.0, 3382000.0,	0.0,	0.0);
(378000.0, 3382000.0,	0.0,	0.0);	(374000.0, 3383000.0,	0.0,	0.0);
(370000.0, 3383000.0,	0.0,	0.0);			

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL86.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1986

YEAR: 1986

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-O	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
86	1	1	1	331.0	4.12	287.0	4	1367.4	1367.4	0.0000	0.0	0.0000	0	0.00
86	1	1	2	38.0	3.60	287.6	4	1328.9	1328.9	0.0000	0.0	0.0000	0	0.00
86	1	1	3	14.0	5.14	287.6	4	1290.4	1290.4	0.0000	0.0	0.0000	0	0.00
86	1	1	4	43.0	2.57	287.6	4	1251.9	1251.9	0.0000	0.0	0.0000	0	0.00
86	1	1	5	43.0	1.00	287.6	4	1213.4	1213.4	0.0000	0.0	0.0000	0	0.00
86	1	1	6	52.0	2.06	288.2	4	1174.9	1174.9	0.0000	0.0	0.0000	0	0.00
86	1	1	7	55.0	1.00	288.2	4	1136.4	1136.4	0.0000	0.0	0.0000	0	0.00
86	1	1	8	93.0	3.60	288.2	4	1097.9	1097.9	0.0000	0.0	0.0000	0	0.00
86	1	1	9	117.0	1.54	288.2	4	1059.5	1059.5	0.0000	0.0	0.0000	0	0.00
86	1	1	10	121.0	1.00	288.7	4	1021.0	1021.0	0.0000	0.0	0.0000	0	0.00
86	1	1	11	254.0	2.06	289.3	4	982.5	982.5	0.0000	0.0	0.0000	0	0.00
86	1	1	12	266.0	2.06	289.8	4	944.0	944.0	0.0000	0.0	0.0000	0	0.00
86	1	1	13	273.0	1.00	290.4	4	905.5	905.5	0.0000	0.0	0.0000	0	0.00
86	1	1	14	189.0	3.60	290.4	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	15	252.0	3.09	290.4	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	16	274.0	2.57	290.4	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	17	271.0	2.57	290.9	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	18	247.0	2.57	290.4	5	864.3	832.8	0.0000	0.0	0.0000	0	0.00
86	1	1	19	244.0	2.06	289.8	4	857.6	857.6	0.0000	0.0	0.0000	0	0.00
86	1	1	20	237.0	1.00	289.8	4	850.8	850.8	0.0000	0.0	0.0000	0	0.00
86	1	1	21	310.0	2.06	289.3	5	844.0	572.9	0.0000	0.0	0.0000	0	0.00
86	1	1	22	302.0	2.57	288.7	4	837.3	837.3	0.0000	0.0	0.0000	0	0.00
86	1	1	23	270.0	2.57	288.7	4	830.5	830.5	0.0000	0.0	0.0000	0	0.00
86	1	1	24	270.0	3.60	288.2	4	823.7	823.7	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
470500.00	3459000.00	0.00287	391000.00	3417000.00	0.00396
390000.00	3410000.00	0.00493	392000.00	3400000.00	0.00532
390000.00	3395000.00	0.00543	391000.00	3390000.00	0.00608
390000.00	3384000.00	0.00725	383000.00	3382000.00	0.00492
378000.00	3382000.00	0.00617	374000.00	3383000.00	0.00640
370000.00	3383000.00	0.00552			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.09233c (86032424)	391000.00	3417000.00	0.15382c (86051924)
390000.00	3410000.00	0.14804c (86051924)	392000.00	3400000.00	0.14072c (86051924)
390000.00	3395000.00	0.10065 (86081324)	391000.00	3390000.00	0.12133 (86081324)
390000.00	3384000.00	0.17155 (86081324)	383000.00	3382000.00	0.12615 (86113024)
378000.00	3382000.00	0.15115c (86112424)	374000.00	3383000.00	0.15840c (86061424)
370000.00	3383000.00	0.12832c (86031224)			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.27699c (86032424)	391000.00	3417000.00	0.43994 (86051908)
390000.00	3410000.00	0.41930 (86051908)	392000.00	3400000.00	0.39474 (86051908)
390000.00	3395000.00	0.29904 (86081308)	391000.00	3390000.00	0.36222 (86081308)
390000.00	3384000.00	0.51449 (86081308)	383000.00	3382000.00	0.33688c (86121208)
378000.00	3382000.00	0.45626c (86121808)	374000.00	3383000.00	0.33640c (86061408)
370000.00	3383000.00	0.33690c (86080324)			

MODELOPTs: CONC
 RURAL FLAT
 DFAULT

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S):
 BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

		** CONC OF CO		IN (MICROGRAMS/CUBIC-METER)		**	
X-COORD (M)	Y-COORD (M)	CONC	(YMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YMMDDHH)
470500.00	3459000.00	0.55398c	(86032424)	391000.00	3417000.00	0.99405	(86051906)
390000.00	3410000.00	0.96188	(86051906)	392000.00	3400000.00	0.90649	(86051906)
390000.00	3395000.00	0.60818	(86081309)	391000.00	3390000.00	0.76711	(86081309)
390000.00	3384000.00	1.16205	(86081309)	383000.00	3382000.00	0.67376c	(86121203)
378000.00	3382000.00	0.91252	(86121803)	374000.00	3383000.00	0.67302	(86081206)
370000.00	3383000.00	0.67847	(86031224)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	1.66194	(86032423)	391000.00	3417000.00	2.91635	(86051906)
390000.00	3410000.00	2.65357	(86051906)	392000.00	3400000.00	2.35804	(86051906)
390000.00	3395000.00	1.80128	(86081307)	391000.00	3390000.00	2.28723	(86081307)
390000.00	3384000.00	3.48476	(86081307)	383000.00	3382000.00	2.02129	(86121203)
378000.00	3382000.00	2.39795	(86112424)	374000.00	3383000.00	2.01907	(86081204)
370000.00	3383000.00	1.92856	(86080321)				

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	---------------------------------	---------	-----------------

LL	1ST HIGHEST VALUE IS	0.00725 AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
	2ND HIGHEST VALUE IS	0.00640 AT (374000.00, 3383000.00,	0.00, 0.00)	DC NA
	3RD HIGHEST VALUE IS	0.00617 AT (378000.00, 3382000.00,	0.00, 0.00)	DC NA
	4TH HIGHEST VALUE IS	0.00608 AT (391000.00, 3390000.00,	0.00, 0.00)	DC NA
	5TH HIGHEST VALUE IS	0.00552 AT (370000.00, 3383000.00,	0.00, 0.00)	DC NA
	6TH HIGHEST VALUE IS	0.00543 AT (390000.00, 3395000.00,	0.00, 0.00)	DC NA
	7TH HIGHEST VALUE IS	0.00532 AT (392000.00, 3400000.00,	0.00, 0.00)	DC NA
	8TH HIGHEST VALUE IS	0.00493 AT (390000.00, 3410000.00,	0.00, 0.00)	DC NA
	9TH HIGHEST VALUE IS	0.00492 AT (383000.00, 3382000.00,	0.00, 0.00)	DC NA
	10TH HIGHEST VALUE IS	0.00396 AT (391000.00, 3417000.00,	0.00, 0.00)	DC NA

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

LL	HIGH 1ST HIGH VALUE IS	0.17155 ON 86081324:	AT (390000.00, 3384000.00, 0.00, 0.00)	DC	NA
----	------------------------	----------------------	---	----	----

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
---------	--------------	-----------------	---------------------------------	---------	-----------------

LL	HIGH 1ST HIGH VALUE IS	0.51449	ON 86081308: AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
----	------------------------	---------	--	-------------	-------

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

*** ISCST3 - VERSION 98356 ***

*** 1986 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK

12/11/98 ***

01/28/99

*** MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS

11:34:10

PAGE 16

NOCMPL

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

ALL	HIGH 1ST HIGH VALUE IS	1.16205	ON 86081309: AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
-----	------------------------	---------	--	-------------	-------

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 3.48476	ON 86081307	AT (390000.00, 3384000.00, 0.00, 0.00)	DC	NA

- *** RECEPTOR TYPES: GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

**MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
 Total of 0 Warning Message(s)
 A Total of 1812 Informational Message(s)
 Total of 1812 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 *** NONE ***

 *** ISCST3 Finishes Successfully ***

CO STARTING
 CO TITLEONE 1987 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

* Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 * BLEACH PLANT BYPASS STACK
 SO LOCATION BLCHSCRB POINT 434000 3283400 .0

* Source Parameter Cards:

* POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 ** AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22

SO	BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
SO	BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
SO	BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO	BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
SO	BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO	BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO	BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
SO	BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
SO	BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
SO	BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
SO	BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
SO	BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

SO EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

SO SRCGROUP ALL

SO FINISHED

RE STARTING

RE DISCCART 470500 3459000
 RE DISCCART 391000 3417000
 RE DISCCART 390000 3410000
 RE DISCCART 392000 3400000
 RE DISCCART 390000 3395000
 RE DISCCART 391000 3390000
 RE DISCCART 390000 3384000
 RE DISCCART 383000 3382000
 RE DISCCART 378000 3382000
 RE DISCCART 374000 3383000
 RE DISCCART 370000 3383000
 RE FINISHED

STARTING

ME INPUTFIL S:\MET\GNSPRL87.BIN

UNFORM

ME ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1987 JACKSONVILLE

ME UAIRDATA 13861 1987 WAYCROSS

ME WINDCATS 1.50 3.10 5.10 8.20 10.80

FINISHED

STARTING

RECTABLE ALLAVE FIRST

OU FINISHED

*** SETUP Finishes Successfully ***

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

*Simple Terrain Model is Selected

*Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

*Model Uses NO DRY DEPLETION. DDPLETE = F

*Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

*Model Uses RURAL Dispersion.

*Model Uses Regulatory DEFAULT Options:

- 1. Final Plume Rise.
- 2. Stack-tip Downwash.
- 3. Buoyancy-induced Dispersion.
- 4. Use Calms Processing Routine.
- 5. Not Use Missing Data Processing Routine.
- 6. Default Wind Profile Exponents.
- 7. Default Vertical Potential Temperature Gradients.
- 8. "Upper Bound" Values for Supersquat Buildings.
- 9. No Exponential Decay for RURAL Mode

*Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

*Model Calculates 4 Short Term Average(s) of: 24-HR 8-HR 3-HR 1-HR
and Calculates PERIOD Averages

*This Run Includes: 1 Source(s); 1 Source Group(s); and 11 Receptor(s)

*The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNning After the Setup Testing.

*Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

*NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

*Misc. Inputs: Anem. Hgt. (m) = 6.71 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.10000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

*Input Runstream File: COCL1.187

**Output Print File: COCL1.087

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE	
											SCALAR	VARY BY
BLCHSCRB	0	0.80000E+01	434000.0	3283400.0	0.0	36.00	338.70	9.30	1.22	YES		

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCRB,

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(470500.0, 3459000.0,	0.0,	0.0);	(391000.0, 3417000.0,	0.0,	0.0);
(390000.0, 3410000.0,	0.0,	0.0);	(392000.0, 3400000.0,	0.0,	0.0);
(390000.0, 3395000.0,	0.0,	0.0);	(391000.0, 3390000.0,	0.0,	0.0);
(390000.0, 3384000.0,	0.0,	0.0);	(383000.0, 3382000.0,	0.0,	0.0);
(378000.0, 3382000.0,	0.0,	0.0);	(374000.0, 3383000.0,	0.0,	0.0);
(370000.0, 3383000.0,	0.0,	0.0);			

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL87.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1987

YEAR: 1987

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-0	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
87	1	1	1	311.0	4.63	292.0	4	356.7	356.7	0.0000	0.0	0.0000	0	0.00
87	1	1	2	348.0	5.14	292.6	4	351.8	351.8	0.0000	0.0	0.0000	0	0.00
87	1	1	3	344.0	6.17	292.6	4	346.9	346.9	0.0000	0.0	0.0000	0	0.00
87	1	1	4	33.0	3.60	293.2	4	342.0	342.0	0.0000	0.0	0.0000	0	0.00
87	1	1	5	33.0	4.12	292.0	4	337.1	337.1	0.0000	0.0	0.0000	0	0.00
87	1	1	6	142.0	4.12	285.4	4	332.2	332.2	0.0000	0.0	0.0000	0	0.00
87	1	1	7	125.0	7.72	283.2	4	327.3	327.3	0.0000	0.0	0.0000	0	0.00
87	1	1	8	123.0	5.14	282.0	4	322.4	322.4	0.0000	0.0	0.0000	0	0.00
87	1	1	9	107.0	6.17	281.5	4	317.5	317.5	0.0000	0.0	0.0000	0	0.00
87	1	1	10	101.0	6.17	281.5	4	312.6	312.6	0.0000	0.0	0.0000	0	0.00
87	1	1	11	114.0	7.20	282.0	4	307.7	307.7	0.0000	0.0	0.0000	0	0.00
87	1	1	12	126.0	6.17	282.6	4	302.8	302.8	0.0000	0.0	0.0000	0	0.00
87	1	1	13	153.0	5.14	282.6	4	297.9	297.9	0.0000	0.0	0.0000	0	0.00
87	1	1	14	139.0	6.17	282.6	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	15	132.0	7.20	284.3	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	16	134.0	6.17	284.8	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	17	121.0	4.12	285.4	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	18	127.0	2.57	284.3	5	310.1	302.5	0.0000	0.0	0.0000	0	0.00
87	1	1	19	104.0	2.57	281.5	6	353.3	326.6	0.0000	0.0	0.0000	0	0.00
87	1	1	20	117.0	2.57	282.6	6	396.6	350.7	0.0000	0.0	0.0000	0	0.00
87	1	1	21	140.0	7.20	283.7	5	439.8	374.8	0.0000	0.0	0.0000	0	0.00
87	1	1	22	142.0	2.57	282.0	6	483.1	398.8	0.0000	0.0	0.0000	0	0.00
87	1	1	23	140.0	1.00	279.8	7	526.3	422.9	0.0000	0.0	0.0000	0	0.00
87	1	1	24	110.0	2.06	278.7	6	569.5	447.0	0.0000	0.0	0.0000	0	0.00

* NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
470500.00	3459000.00	0.00208	391000.00	3417000.00	0.00380
390000.00	3410000.00	0.00414	392000.00	3400000.00	0.00439
390000.00	3395000.00	0.00455	391000.00	3390000.00	0.00497
390000.00	3384000.00	0.00521	383000.00	3382000.00	0.00426
378000.00	3382000.00	0.00424	374000.00	3383000.00	0.00456
370000.00	3383000.00	0.00473			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.08621c (87031924)	391000.00	3417000.00	0.08910c (87020124)
390000.00	3410000.00	0.09824c (87061524)	392000.00	3400000.00	0.12362c (87072824)
390000.00	3395000.00	0.11843c (87090724)	391000.00	3390000.00	0.16889c (87122524)
390000.00	3384000.00	0.21600c (87122524)	383000.00	3382000.00	0.11035c (87041424)
378000.00	3382000.00	0.12536c (87032624)	374000.00	3383000.00	0.14898c (87081624)
370000.00	3383000.00	0.15100c (87112824)			

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.24785	(87031908)	391000.00	3417000.00	0.26303c	(87020124)
390000.00	3410000.00	0.29473c	(87061508)	392000.00	3400000.00	0.41206c	(87072808)
390000.00	3395000.00	0.33844c	(87083008)	391000.00	3390000.00	0.45260c	(87122524)
390000.00	3384000.00	0.61661c	(87122524)	383000.00	3382000.00	0.22619	(87082824)
378000.00	3382000.00	0.28931c	(87112816)	374000.00	3383000.00	0.44693c	(87081608)
370000.00	3383000.00	0.45300c	(87112816)				

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.66095	(87031909)	391000.00	3417000.00	0.50193	(87020203)
390000.00	3410000.00	0.58261c	(87072803)	392000.00	3400000.00	0.82412c	(87072803)
390000.00	3395000.00	0.78969	(87083006)	391000.00	3390000.00	0.90521c	(87122524)
390000.00	3384000.00	1.23322c	(87122524)	383000.00	3382000.00	0.60316	(87082824)
378000.00	3382000.00	0.57863c	(87112815)	374000.00	3383000.00	0.78760c	(87112815)
370000.00	3383000.00	0.90600c	(87112815)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, B,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	1.94369	(87031907)	391000.00	3417000.00	1.32092	(87020124)
390000.00	3410000.00	1.74784	(87072803)	392000.00	3400000.00	2.47236	(87072803)
390000.00	3395000.00	2.36907	(87083006)	391000.00	3390000.00	2.70891	(87083006)
390000.00	3384000.00	2.03316	(87052024)	383000.00	3382000.00	1.80949	(87082822)
378000.00	3382000.00	1.73588	(87112814)	374000.00	3383000.00	2.36280	(87112814)
370000.00	3383000.00	2.71799	(87112814)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	---------------------------------	---------	-----------------

L	1ST HIGHEST VALUE IS	0.00521 AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
	2ND HIGHEST VALUE IS	0.00497 AT (391000.00, 3390000.00,	0.00, 0.00)	DC NA
	3RD HIGHEST VALUE IS	0.00473 AT (370000.00, 3383000.00,	0.00, 0.00)	DC NA
	4TH HIGHEST VALUE IS	0.00456 AT (374000.00, 3383000.00,	0.00, 0.00)	DC NA
	5TH HIGHEST VALUE IS	0.00455 AT (390000.00, 3395000.00,	0.00, 0.00)	DC NA
	6TH HIGHEST VALUE IS	0.00439 AT (392000.00, 3400000.00,	0.00, 0.00)	DC NA
	7TH HIGHEST VALUE IS	0.00426 AT (383000.00, 3382000.00,	0.00, 0.00)	DC NA
	8TH HIGHEST VALUE IS	0.00424 AT (378000.00, 3382000.00,	0.00, 0.00)	DC NA
	9TH HIGHEST VALUE IS	0.00414 AT (390000.00, 3410000.00,	0.00, 0.00)	DC NA
	10TH HIGHEST VALUE IS	0.00380 AT (391000.00, 3417000.00,	0.00, 0.00)	DC NA

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	0.21600c ON 87122524: AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

*** ISCST3 - VERSION 98356 ***

*** 1987 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK

12/11/98 ***

01/28/99

*** MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS

11:34:13

PAGE 15

NOCMPL

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	0.61661c	ON 87122524: AT (390000.00, 3384000.00, 0.00, 0.00)	DC	NA
---	------------------------	----------	--	----	----

** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

1	HIGH 1ST HIGH VALUE IS	1.23322e ON 87122524: AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

- *** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

LL	HIGH 1ST HIGH VALUE IS	2.71799	ON 87112814: AT (370000.00, 3383000.00, 0.00, 0.00)	DC	NA
----	------------------------	---------	--	----	----

- *** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC RURAL FLAT DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
Total of 0 Warning Message(s)
A Total of 2099 Informational Message(s)

Total of 2099 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
*** NONE ***

*** ISCST3 Finishes Successfully ***

CO STARTING
 CO TITLEONE 1988 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE, PSD CLASS I RECEPTORS
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 BLEACH PLANT BYPASS STACK
 LOCATION BLCHSCRB POINT 434000 3283400 .0

Source Parameter Cards:

POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 ** AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22

	BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
SO BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76	25.76
BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76	25.76
BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49	
SO BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76	25.76
BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44	
SO BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78	
SO BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33	
BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90	
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78	
SO BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33	

SO EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

SO SRCGROUP ALL

FINISHED

RE STARTING

DISCCART 470500 3459000
 DISCCART 391000 3417000
 RE DISCCART 390000 3410000
 RE DISCCART 392000 3400000
 DISCCART 390000 3395000
 RE DISCCART 391000 3390000
 RE DISCCART 390000 3384000
 DISCCART 383000 3382000
 DISCCART 378000 3382000
 RE DISCCART 374000 3383000
 RE DISCCART 370000 3383000
 RE FINISHED

ME STARTING
ME INPUTFIL S:\MET\GNSPRL88.BIN UNFORM
ME ANEMHGHT 22.00 FEET
ME SURFDATA 12816 1988 JACKSONVILLE
ME UAIRDATA 13861 1988 WAYCROSS
ME WINDCATS 1.50 3.10 5.10 8.20 10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED

*** SETUP Finishes Successfully ***

MODELOPTs: CONC

RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

Simple Terrain Model is Selected

Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

Model Uses RURAL Dispersion.

Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

Model Calculates 4 Short Term Average(s) of: 24-HR 8-HR 3-HR 1-HR
and Calculates PERIOD Averages

This Run Includes: 1 Source(s); 1 Source Group(s); and 11 Receptor(s)

**The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNning After the Setup Testing.

Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

*NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

*Misc. Inputs: Anem. Hgt. (m) = 6.71 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.10000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

*Input Runstream File: COCL1.I88

**Output Print File: COCL1.O88

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE	
											SCALAR	VARY BY
BLCHSCRB	0	0.80000E+01	434000.0	3283400.0	0.0	36.00	338.70	9.30	1.22	YES		

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

LL BLCHSCRB,

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZFLAG)

(METERS)

(470500.0, 3459000.0,	0.0,	0.0);	(391000.0, 3417000.0,	0.0,	0.0);
(390000.0, 3410000.0,	0.0,	0.0);	(392000.0, 3400000.0,	0.0,	0.0);
(390000.0, 3395000.0,	0.0,	0.0);	(391000.0, 3390000.0,	0.0,	0.0);
(390000.0, 3384000.0,	0.0,	0.0);	(383000.0, 3382000.0,	0.0,	0.0);
(378000.0, 3382000.0,	0.0,	0.0);	(374000.0, 3383000.0,	0.0,	0.0);
(370000.0, 3383000.0,	0.0,	0.0);			

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL88.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1988

YEAR: 1988

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M)		USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
								RURAL	URBAN					
88	1	1	1	321.0	3.09	285.9	6	989.1	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	2	278.0	2.57	284.8	6	1002.6	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	3	284.0	1.00	284.3	7	1016.1	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	4	283.0	1.00	282.6	7	1029.7	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	5	283.0	1.00	282.0	7	1043.2	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	6	282.0	1.00	281.5	7	1056.7	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	7	285.0	1.00	282.6	7	1070.3	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	8	283.0	1.00	282.6	6	92.8	210.6	0.0000	0.0	0.0000	0	0.00
88	1	1	9	277.0	1.00	285.4	5	271.5	369.6	0.0000	0.0	0.0000	0	0.00
88	1	1	10	341.0	3.09	288.7	4	450.2	528.7	0.0000	0.0	0.0000	0	0.00
88	1	1	11	344.0	2.57	292.0	3	628.9	687.8	0.0000	0.0	0.0000	0	0.00
88	1	1	12	316.0	5.14	294.3	3	807.6	846.9	0.0000	0.0	0.0000	0	0.00
88	1	1	13	343.0	3.60	294.8	2	986.3	1005.9	0.0000	0.0	0.0000	0	0.00
88	1	1	14	9.0	3.60	295.9	3	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	15	42.0	2.57	296.5	3	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	16	334.0	2.57	296.5	3	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	17	301.0	2.57	295.4	4	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	18	137.0	1.54	292.6	5	1143.9	1125.6	0.0000	0.0	0.0000	0	0.00
88	1	1	19	144.0	1.00	290.4	6	1090.5	1025.6	0.0000	0.0	0.0000	0	0.00
88	1	1	20	137.0	1.00	288.7	6	1037.1	925.7	0.0000	0.0	0.0000	0	0.00
88	1	1	21	140.0	1.00	287.6	7	983.7	825.8	0.0000	0.0	0.0000	0	0.00
88	1	1	22	142.0	1.00	286.5	7	930.3	725.9	0.0000	0.0	0.0000	0	0.00
88	1	1	23	140.0	1.00	286.5	7	876.9	625.9	0.0000	0.0	0.0000	0	0.00
88	1	1	24	140.0	1.00	285.9	7	823.6	526.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, B

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
470500.00	3459000.00	0.00138	391000.00	3417000.00	0.00255
390000.00	3410000.00	0.00270	392000.00	3400000.00	0.00289
390000.00	3395000.00	0.00268	391000.00	3390000.00	0.00287
390000.00	3384000.00	0.00373	383000.00	3382000.00	0.00442
378000.00	3382000.00	0.00452	374000.00	3383000.00	0.00513
370000.00	3383000.00	0.00583			

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.04215c (88030424)	391000.00	3417000.00	0.06712c (88062624)
390000.00	3410000.00	0.12046c (88062624)	392000.00	3400000.00	0.10371c (88071524)
390000.00	3395000.00	0.06503c (88030324)	391000.00	3390000.00	0.07712c (88030324)
390000.00	3384000.00	0.09778c (88071724)	383000.00	3382000.00	0.12233c (88100324)
378000.00	3382000.00	0.26250c (88100324)	374000.00	3383000.00	0.29872c (88100324)
370000.00	3383000.00	0.24261c (88100324)			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
470500.00	3459000.00	0.11655c (88082024)	391000.00	3417000.00	0.21255c (88062608)
390000.00	3410000.00	0.38145c (88062608)	392000.00	3400000.00	0.32300c (88062608)
390000.00	3395000.00	0.14632 (88030316)	391000.00	3390000.00	0.17351 (88030316)
390000.00	3384000.00	0.23222 (88071724)	383000.00	3382000.00	0.30105c (88061808)
378000.00	3382000.00	0.72418c (88100308)	374000.00	3383000.00	0.85544c (88100308)
370000.00	3383000.00	0.63252c (88100308)			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.27195	(88082024)	391000.00	3417000.00	0.42511c	(88062603)
390000.00	3410000.00	0.76290c	(88062603)	392000.00	3400000.00	0.64599c	(88062603)
390000.00	3395000.00	0.33512c	(88030309)	391000.00	3390000.00	0.38837c	(88030309)
390000.00	3384000.00	0.61926	(88071724)	383000.00	3382000.00	0.60210c	(88061803)
378000.00	3382000.00	1.45875	(88100309)	374000.00	3383000.00	1.76069	(88100309)
370000.00	3383000.00	1.44674	(88100309)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
470500.00	3459000.00	0.81586	(88082024)	391000.00	3417000.00	1.27532	(88062601)
390000.00	3410000.00	2.28870	(88062601)	392000.00	3400000.00	1.93798	(88062601)
390000.00	3395000.00	1.00535	(88030309)	391000.00	3390000.00	1.16512	(88030309)
390000.00	3384000.00	1.29314	(88030309)	383000.00	3382000.00	1.80629	(88061801)
378000.00	3382000.00	4.34510	(88100308)	374000.00	3383000.00	5.13266	(88100308)
370000.00	3383000.00	3.79514	(88100308)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS 0.00583	AT (370000.00, 3383000.00,	0.00, 0.00)	DC NA
	2ND HIGHEST VALUE IS 0.00513	AT (374000.00, 3383000.00,	0.00, 0.00)	DC NA
	3RD HIGHEST VALUE IS 0.00452	AT (378000.00, 3382000.00,	0.00, 0.00)	DC NA
	4TH HIGHEST VALUE IS 0.00442	AT (383000.00, 3382000.00,	0.00, 0.00)	DC NA
	5TH HIGHEST VALUE IS 0.00373	AT (390000.00, 3384000.00,	0.00, 0.00)	DC NA
	6TH HIGHEST VALUE IS 0.00289	AT (392000.00, 3400000.00,	0.00, 0.00)	DC NA
	7TH HIGHEST VALUE IS 0.00287	AT (391000.00, 3390000.00,	0.00, 0.00)	DC NA
	8TH HIGHEST VALUE IS 0.00270	AT (390000.00, 3410000.00,	0.00, 0.00)	DC NA
	9TH HIGHEST VALUE IS 0.00268	AT (390000.00, 3395000.00,	0.00, 0.00)	DC NA
	10TH HIGHEST VALUE IS 0.00255	AT (391000.00, 3417000.00,	0.00, 0.00)	DC NA

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	0.29872c ON 88100324: AT (374000.00, 3383000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	0.85544c ON 88100308: AT (374000.00, 3383000.00,	0.00, 0.00)	DC NA
---	------------------------	----------------------------	------------------------	-------------	-------

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	1.76069	ON 88100309: AT (374000.00, 3383000.00, 0.00, 0.00)	DC	NA
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** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	--------------------	---------------------------------	---------	--------------------

HIGH 1ST HIGH VALUE IS 5.13266 ON 88100308: AT (374000.00, 3383000.00, 0.00, 0.00) DC NA

** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
 Total of 0 Warning Message(s)
 A Total of 1844 Informational Message(s)
 Total of 1844 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 *** NONE ***

 *** ISCST3 Finishes Successfully ***

**CLASS II AREA
MODELING RUNS**

CO STARTING
 CO TITLEONE 1984 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 BLEACH PLANT BYPASS STACK
 CO LOCATION BLCHSCRB POINT 109.3 141.5 .0
 SO LOCATION TRS POINT 0.0 0.0 .0

Source Parameter Cards:

** POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 ** AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22
 SRCPARAM TRS 0.00 76.2 533.2 32.03 0.94

BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)
 CO SRCGROUP ALL
 SO FINISHED

STARTING

** RECEPTOR ORIGIN IS TRS INCINERATOR STACK

RE DISCPOLR	TRS	5000.00	10.00
RE DISCPOLR	TRS	4500.00	20.00
RE DISCPOLR	TRS	5000.00	20.00
RE DISCPOLR	TRS	2500.00	30.00
RE DISCPOLR	TRS	3000.00	30.00
RE DISCPOLR	TRS	3500.00	30.00
RE DISCPOLR	TRS	4000.00	30.00
RE DISCPOLR	TRS	4500.00	30.00
RE DISCPOLR	TRS	5000.00	30.00
RE DISCPOLR	TRS	2500.00	40.00

RE DISCPOLR TRS	3000.00	40.00
RE DISCPOLR TRS	3500.00	40.00
RE DISCPOLR TRS	4000.00	40.00
RE DISCPOLR TRS	4500.00	40.00
RE DISCPOLR TRS	5000.00	40.00
RE DISCPOLR TRS	1500.00	50.00
RE DISCPOLR TRS	2000.00	50.00
RE DISCPOLR TRS	2500.00	50.00
RE DISCPOLR TRS	3000.00	50.00
RE DISCPOLR TRS	3500.00	50.00
RE DISCPOLR TRS	4000.00	50.00
RE DISCPOLR TRS	4500.00	50.00
RE DISCPOLR TRS	5000.00	50.00
RE DISCPOLR TRS	1500.00	60.00
RE DISCPOLR TRS	2000.00	60.00
RE DISCPOLR TRS	2500.00	60.00
RE DISCPOLR TRS	3000.00	60.00
RE DISCPOLR TRS	3500.00	60.00
RE DISCPOLR TRS	4000.00	60.00
RE DISCPOLR TRS	4500.00	60.00
RE DISCPOLR TRS	5000.00	60.00
RE DISCPOLR TRS	1500.00	70.00
RE DISCPOLR TRS	2000.00	70.00
RE DISCPOLR TRS	2500.00	70.00
RE DISCPOLR TRS	3000.00	70.00
RE DISCPOLR TRS	3500.00	70.00
RE DISCPOLR TRS	4000.00	70.00
RE DISCPOLR TRS	4500.00	70.00
RE DISCPOLR TRS	5000.00	70.00
RE DISCPOLR TRS	838.00	80.00
RE DISCPOLR TRS	1100.00	80.00
RE DISCPOLR TRS	1500.00	80.00
RE DISCPOLR TRS	2000.00	80.00
RE DISCPOLR TRS	2500.00	80.00
RE DISCPOLR TRS	3000.00	80.00
RE DISCPOLR TRS	3500.00	80.00
RE DISCPOLR TRS	4000.00	80.00
RE DISCPOLR TRS	4500.00	80.00
RE DISCPOLR TRS	5000.00	80.00
RE DISCPOLR TRS	686.00	90.00
RE DISCPOLR TRS	1100.00	90.00
RE DISCPOLR TRS	1500.00	90.00
RE DISCPOLR TRS	2000.00	90.00
RE DISCPOLR TRS	2500.00	90.00
RE DISCPOLR TRS	3000.00	90.00
RE DISCPOLR TRS	3500.00	90.00
RE DISCPOLR TRS	4000.00	90.00
RE DISCPOLR TRS	4500.00	90.00
RE DISCPOLR TRS	5000.00	90.00
RE DISCPOLR TRS	533.00	100.00
RE DISCPOLR TRS	700.00	100.00
RE DISCPOLR TRS	1100.00	100.00
RE DISCPOLR TRS	1500.00	100.00
RE DISCPOLR TRS	2000.00	100.00
RE DISCPOLR TRS	2500.00	100.00
RE DISCPOLR TRS	3000.00	100.00
RE DISCPOLR TRS	3500.00	100.00
RE DISCPOLR TRS	4000.00	100.00
RE DISCPOLR TRS	4500.00	100.00
RE DISCPOLR TRS	5000.00	100.00

DISCPOLR TRS	457.00	110.00
DISCPOLR TRS	700.00	110.00
RE DISCPOLR TRS	1100.00	110.00
DISCPOLR TRS	1500.00	110.00
DISCPOLR TRS	2000.00	110.00
RE DISCPOLR TRS	2500.00	110.00
RE DISCPOLR TRS	3000.00	110.00
DISCPOLR TRS	3500.00	110.00
RE DISCPOLR TRS	4000.00	110.00
RE DISCPOLR TRS	4500.00	110.00
DISCPOLR TRS	5000.00	110.00
DISCPOLR TRS	457.00	120.00
RE DISCPOLR TRS	700.00	120.00
DISCPOLR TRS	1100.00	120.00
DISCPOLR TRS	1500.00	120.00
RE DISCPOLR TRS	2000.00	120.00
RE DISCPOLR TRS	2500.00	120.00
DISCPOLR TRS	3000.00	120.00
DISCPOLR TRS	3500.00	120.00
RE DISCPOLR TRS	4000.00	120.00
DISCPOLR TRS	4500.00	120.00
DISCPOLR TRS	5000.00	120.00
RE DISCPOLR TRS	457.00	130.00
RE DISCPOLR TRS	700.00	130.00
DISCPOLR TRS	1100.00	130.00
RE DISCPOLR TRS	1500.00	130.00
RE DISCPOLR TRS	2000.00	130.00
DISCPOLR TRS	2500.00	130.00
DISCPOLR TRS	3000.00	130.00
RE DISCPOLR TRS	3500.00	130.00
DISCPOLR TRS	4000.00	130.00
DISCPOLR TRS	4500.00	130.00
RE DISCPOLR TRS	5000.00	130.00
RE DISCPOLR TRS	457.00	140.00
DISCPOLR TRS	700.00	140.00
RE DISCPOLR TRS	1100.00	140.00
RE DISCPOLR TRS	1500.00	140.00
DISCPOLR TRS	2000.00	140.00
DISCPOLR TRS	2500.00	140.00
RE DISCPOLR TRS	3000.00	140.00
DISCPOLR TRS	3500.00	140.00
DISCPOLR TRS	4000.00	140.00
RE DISCPOLR TRS	4500.00	140.00
RE DISCPOLR TRS	5000.00	140.00
DISCPOLR TRS	457.00	150.00
DISCPOLR TRS	700.00	150.00
RE DISCPOLR TRS	1100.00	150.00
DISCPOLR TRS	1500.00	150.00
DISCPOLR TRS	2000.00	150.00
RE DISCPOLR TRS	2500.00	150.00
RE DISCPOLR TRS	3000.00	150.00
DISCPOLR TRS	3500.00	150.00
RE DISCPOLR TRS	4000.00	150.00
RE DISCPOLR TRS	4500.00	150.00
DISCPOLR TRS	5000.00	150.00
DISCPOLR TRS	488.00	160.00
RE DISCPOLR TRS	700.00	160.00
DISCPOLR TRS	1100.00	160.00
DISCPOLR TRS	1500.00	160.00
RE DISCPOLR TRS	2000.00	160.00

	DISCPOLR TRS	2500.00	160.00
	DISCPOLR TRS	3000.00	160.00
RE	DISCPOLR TRS	3500.00	160.00
	DISCPOLR TRS	4000.00	160.00
	DISCPOLR TRS	4500.00	160.00
RE	DISCPOLR TRS	5000.00	160.00
RE	DISCPOLR TRS	533.00	170.00
	DISCPOLR TRS	700.00	170.00
RE	DISCPOLR TRS	1100.00	170.00
RE	DISCPOLR TRS	1500.00	170.00
	DISCPOLR TRS	2000.00	170.00
	DISCPOLR TRS	2500.00	170.00
RE	DISCPOLR TRS	3000.00	170.00
	DISCPOLR TRS	3500.00	170.00
	DISCPOLR TRS	4000.00	170.00
RE	DISCPOLR TRS	4500.00	170.00
RE	DISCPOLR TRS	5000.00	170.00
	DISCPOLR TRS	610.00	180.00
	DISCPOLR TRS	700.00	180.00
RE	DISCPOLR TRS	1100.00	180.00
	DISCPOLR TRS	1500.00	180.00
	DISCPOLR TRS	2000.00	180.00
RE	DISCPOLR TRS	2500.00	180.00
RE	DISCPOLR TRS	3000.00	180.00
	DISCPOLR TRS	3500.00	180.00
RE	DISCPOLR TRS	4000.00	180.00
RE	DISCPOLR TRS	4500.00	180.00
	DISCPOLR TRS	5000.00	180.00
	DISCPOLR TRS	750.00	190.00
RE	DISCPOLR TRS	1100.00	190.00
	DISCPOLR TRS	1500.00	190.00
	DISCPOLR TRS	2000.00	190.00
RE	DISCPOLR TRS	2500.00	190.00
RE	DISCPOLR TRS	3000.00	190.00
	DISCPOLR TRS	3500.00	190.00
RE	DISCPOLR TRS	4000.00	190.00
RE	DISCPOLR TRS	4500.00	190.00
	DISCPOLR TRS	5000.00	190.00
	DISCPOLR TRS	1829.00	200.00
RE	DISCPOLR TRS	2000.00	200.00
	DISCPOLR TRS	2500.00	200.00
	DISCPOLR TRS	3000.00	200.00
RE	DISCPOLR TRS	3500.00	200.00
RE	DISCPOLR TRS	4000.00	200.00
	DISCPOLR TRS	4500.00	200.00
	DISCPOLR TRS	5000.00	200.00
RE	DISCPOLR TRS	1829.00	210.00
	DISCPOLR TRS	2000.00	210.00
	DISCPOLR TRS	2500.00	210.00
RE	DISCPOLR TRS	3000.00	210.00
RE	DISCPOLR TRS	3500.00	210.00
	DISCPOLR TRS	4000.00	210.00
RE	DISCPOLR TRS	4500.00	210.00
RE	DISCPOLR TRS	5000.00	210.00
	DISCPOLR TRS	1981.00	220.00
	DISCPOLR TRS	2000.00	220.00
RE	DISCPOLR TRS	2500.00	220.00
	DISCPOLR TRS	3000.00	220.00
	DISCPOLR TRS	3500.00	220.00
RE	DISCPOLR TRS	4000.00	220.00

DISCPOLR TRS	4500.00	220.00
DISCPOLR TRS	5000.00	220.00
RE DISCPOLR TRS	2134.00	230.00
DISCPOLR TRS	2500.00	230.00
DISCPOLR TRS	3000.00	230.00
RE DISCPOLR TRS	3500.00	230.00
DISCPOLR TRS	4000.00	230.00
DISCPOLR TRS	4500.00	230.00
RE DISCPOLR TRS	5000.00	230.00
RE DISCPOLR TRS	2438.00	240.00
DISCPOLR TRS	2500.00	240.00
DISCPOLR TRS	3000.00	240.00
RE DISCPOLR TRS	3500.00	240.00
DISCPOLR TRS	4000.00	240.00
DISCPOLR TRS	4500.00	240.00
RE DISCPOLR TRS	5000.00	240.00
RE DISCPOLR TRS	2896.00	250.00
DISCPOLR TRS	3000.00	250.00
RE DISCPOLR TRS	3500.00	250.00
RE DISCPOLR TRS	4000.00	250.00
DISCPOLR TRS	4500.00	250.00
DISCPOLR TRS	5000.00	250.00
RE DISCPOLR TRS	3048.00	260.00
DISCPOLR TRS	3500.00	260.00
DISCPOLR TRS	4000.00	260.00
RE DISCPOLR TRS	4500.00	260.00
RE DISCPOLR TRS	5000.00	260.00
DISCPOLR TRS	3658.00	270.00
DISCPOLR TRS	4000.00	270.00
RE DISCPOLR TRS	4500.00	270.00
DISCPOLR TRS	5000.00	270.00
DISCPOLR TRS	3962.00	280.00
RE DISCPOLR TRS	4000.00	280.00
DISCPOLR TRS	4500.00	280.00
DISCPOLR TRS	5000.00	280.00
RE DISCPOLR TRS	4572.00	290.00
RE DISCPOLR TRS	5000.00	290.00
DISCPOLR TRS	5182.00	300.00
DISCPOLR TRS	4801.00	310.00
RE DISCPOLR TRS	5000.00	310.00
DISCPOLR TRS	4875.00	320.00
DISCPOLR TRS	5000.00	320.00
RE DISCPOLR TRS	6000.00	330.00
RE DISCPOLR TRS	5500.00	340.00
DISCPOLR TRS	5250.00	350.00
RE DISCPOLR TRS	5125.00	360.00

RE FINISHED

ME STARTING

ME INPUTFIL S:\MET\GNSPRL84.BIN

UNFORM

ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1984 JACKSONVILLE

ME UAIRDATA 13861 1984 WAYCROSS

WINDCATS 1.50 3.10 5.10 8.20 10.80

FINISHED

STARTING

OU RECTABLE ALLAVE FIRST

FINISHED

*** Message Summary For ISC3 Model Setup ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

W320 27 PPARM :Input Parameter May Be Out-of-Range for Parameter QS

* SETUP Finishes Successfully ***

MODELOPTs: CONC

RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE	STACK	STACK	STACK	STACK	BUILDING EXISTS	EMISSION RATE	
					ELEV. (METERS)	HEIGHT (METERS)	TEMP. (DEG.K)	EXIT VEL. (M/SEC)	DIAMETER (METERS)		SCALAR	VARY BY
BLCHSCRB	0	0.80000E+01	109.3	141.5	0.0	36.00	338.70	9.30	1.22	YES		
TRS	0	0.00000E+00	0.0	0.0	0.0	76.20	533.20	32.03	0.94	NO		

*** ISCST3 - VERSION 98356 ***

*** 1984 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK
*** MAXIMUM FUTURE CO EMISSION RATE

12/11/98 ***

01/28/99
11:34:23
PAGE 3
NOCMPL

MODELOPTS: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCR, TRS ,

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK				
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	5000.0,	10.0,	0.0,	0.0);	TRS	:	(	4500.0,	20.0,	0.0,	0.0);
TRS	:	(	5000.0,	20.0,	0.0,	0.0);	TRS	:	(	2500.0,	30.0,	0.0,	0.0);
TRS	:	(	3000.0,	30.0,	0.0,	0.0);	TRS	:	(	3500.0,	30.0,	0.0,	0.0);
TRS	:	(	4000.0,	30.0,	0.0,	0.0);	TRS	:	(	4500.0,	30.0,	0.0,	0.0);
TRS	:	(	5000.0,	30.0,	0.0,	0.0);	TRS	:	(	2500.0,	40.0,	0.0,	0.0);
TRS	:	(	3000.0,	40.0,	0.0,	0.0);	TRS	:	(	3500.0,	40.0,	0.0,	0.0);
TRS	:	(	4000.0,	40.0,	0.0,	0.0);	TRS	:	(	4500.0,	40.0,	0.0,	0.0);
TRS	:	(	5000.0,	40.0,	0.0,	0.0);	TRS	:	(	1500.0,	50.0,	0.0,	0.0);
TRS	:	(	2000.0,	50.0,	0.0,	0.0);	TRS	:	(	2500.0,	50.0,	0.0,	0.0);
TRS	:	(	3000.0,	50.0,	0.0,	0.0);	TRS	:	(	3500.0,	50.0,	0.0,	0.0);
TRS	:	(	4000.0,	50.0,	0.0,	0.0);	TRS	:	(	4500.0,	50.0,	0.0,	0.0);
TRS	:	(	5000.0,	50.0,	0.0,	0.0);	TRS	:	(	1500.0,	60.0,	0.0,	0.0);
TRS	:	(	2000.0,	60.0,	0.0,	0.0);	TRS	:	(	2500.0,	60.0,	0.0,	0.0);
TRS	:	(	3000.0,	60.0,	0.0,	0.0);	TRS	:	(	3500.0,	60.0,	0.0,	0.0);
TRS	:	(	4000.0,	60.0,	0.0,	0.0);	TRS	:	(	4500.0,	60.0,	0.0,	0.0);
TRS	:	(	5000.0,	60.0,	0.0,	0.0);	TRS	:	(	1500.0,	70.0,	0.0,	0.0);
TRS	:	(	2000.0,	70.0,	0.0,	0.0);	TRS	:	(	2500.0,	70.0,	0.0,	0.0);
TRS	:	(	3000.0,	70.0,	0.0,	0.0);	TRS	:	(	3500.0,	70.0,	0.0,	0.0);
TRS	:	(	4000.0,	70.0,	0.0,	0.0);	TRS	:	(	4500.0,	70.0,	0.0,	0.0);
TRS	:	(	5000.0,	70.0,	0.0,	0.0);	TRS	:	(	838.0,	80.0,	0.0,	0.0);
TRS	:	(	1100.0,	80.0,	0.0,	0.0);	TRS	:	(	1500.0,	80.0,	0.0,	0.0);
TRS	:	(	2000.0,	80.0,	0.0,	0.0);	TRS	:	(	2500.0,	80.0,	0.0,	0.0);
TRS	:	(	3000.0,	80.0,	0.0,	0.0);	TRS	:	(	3500.0,	80.0,	0.0,	0.0);
TRS	:	(	4000.0,	80.0,	0.0,	0.0);	TRS	:	(	4500.0,	80.0,	0.0,	0.0);
TRS	:	(	5000.0,	80.0,	0.0,	0.0);	TRS	:	(	686.0,	90.0,	0.0,	0.0);
TRS	:	(	1100.0,	90.0,	0.0,	0.0);	TRS	:	(	1500.0,	90.0,	0.0,	0.0);
TRS	:	(	2000.0,	90.0,	0.0,	0.0);	TRS	:	(	2500.0,	90.0,	0.0,	0.0);
TRS	:	(	3000.0,	90.0,	0.0,	0.0);	TRS	:	(	3500.0,	90.0,	0.0,	0.0);
TRS	:	(	4000.0,	90.0,	0.0,	0.0);	TRS	:	(	4500.0,	90.0,	0.0,	0.0);
TRS	:	(	5000.0,	90.0,	0.0,	0.0);	TRS	:	(	533.0,	100.0,	0.0,	0.0);
TRS	:	(	700.0,	100.0,	0.0,	0.0);	TRS	:	(	1100.0,	100.0,	0.0,	0.0);
TRS	:	(	1500.0,	100.0,	0.0,	0.0);	TRS	:	(	2000.0,	100.0,	0.0,	0.0);
TRS	:	(	2500.0,	100.0,	0.0,	0.0);	TRS	:	(	3000.0,	100.0,	0.0,	0.0);
TRS	:	(	3500.0,	100.0,	0.0,	0.0);	TRS	:	(	4000.0,	100.0,	0.0,	0.0);
TRS	:	(	4500.0,	100.0,	0.0,	0.0);	TRS	:	(	5000.0,	100.0,	0.0,	0.0);
TRS	:	(	457.0,	110.0,	0.0,	0.0);	TRS	:	(	700.0,	110.0,	0.0,	0.0);
TRS	:	(	1100.0,	110.0,	0.0,	0.0);	TRS	:	(	1500.0,	110.0,	0.0,	0.0);
TRS	:	(	2000.0,	110.0,	0.0,	0.0);	TRS	:	(	2500.0,	110.0,	0.0,	0.0);
TRS	:	(	3000.0,	110.0,	0.0,	0.0);	TRS	:	(	3500.0,	110.0,	0.0,	0.0);
TRS	:	(	4000.0,	110.0,	0.0,	0.0);	TRS	:	(	4500.0,	110.0,	0.0,	0.0);
TRS	:	(	5000.0,	110.0,	0.0,	0.0);	TRS	:	(	457.0,	120.0,	0.0,	0.0);
TRS	:	(	700.0,	120.0,	0.0,	0.0);	TRS	:	(	1100.0,	120.0,	0.0,	0.0);
TRS	:	(	1500.0,	120.0,	0.0,	0.0);	TRS	:	(	2000.0,	120.0,	0.0,	0.0);
TRS	:	(	2500.0,	120.0,	0.0,	0.0);	TRS	:	(	3000.0,	120.0,	0.0,	0.0);
TRS	:	(	3500.0,	120.0,	0.0,	0.0);	TRS	:	(	4000.0,	120.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS, DEG, METERS, METERS)

TRS	:	(	4500.0,	120.0,	0.0,	0.0);	TRS	:	(	5000.0,	120.0,	0.0,	0.0);
TRS	:	(	457.0,	130.0,	0.0,	0.0);	TRS	:	(	700.0,	130.0,	0.0,	0.0);
TRS	:	(	1100.0,	130.0,	0.0,	0.0);	TRS	:	(	1500.0,	130.0,	0.0,	0.0);
TRS	:	(	2000.0,	130.0,	0.0,	0.0);	TRS	:	(	2500.0,	130.0,	0.0,	0.0);
TRS	:	(	3000.0,	130.0,	0.0,	0.0);	TRS	:	(	3500.0,	130.0,	0.0,	0.0);
TRS	:	(	4000.0,	130.0,	0.0,	0.0);	TRS	:	(	4500.0,	130.0,	0.0,	0.0);
TRS	:	(	5000.0,	130.0,	0.0,	0.0);	TRS	:	(	457.0,	140.0,	0.0,	0.0);
TRS	:	(	700.0,	140.0,	0.0,	0.0);	TRS	:	(	1100.0,	140.0,	0.0,	0.0);
TRS	:	(	1500.0,	140.0,	0.0,	0.0);	TRS	:	(	2000.0,	140.0,	0.0,	0.0);
TRS	:	(	2500.0,	140.0,	0.0,	0.0);	TRS	:	(	3000.0,	140.0,	0.0,	0.0);
TRS	:	(	3500.0,	140.0,	0.0,	0.0);	TRS	:	(	4000.0,	140.0,	0.0,	0.0);
TRS	:	(	4500.0,	140.0,	0.0,	0.0);	TRS	:	(	5000.0,	140.0,	0.0,	0.0);
TRS	:	(	457.0,	150.0,	0.0,	0.0);	TRS	:	(	700.0,	150.0,	0.0,	0.0);
TRS	:	(	1100.0,	150.0,	0.0,	0.0);	TRS	:	(	1500.0,	150.0,	0.0,	0.0);
TRS	:	(	2000.0,	150.0,	0.0,	0.0);	TRS	:	(	2500.0,	150.0,	0.0,	0.0);
TRS	:	(	3000.0,	150.0,	0.0,	0.0);	TRS	:	(	3500.0,	150.0,	0.0,	0.0);
TRS	:	(	4000.0,	150.0,	0.0,	0.0);	TRS	:	(	4500.0,	150.0,	0.0,	0.0);
TRS	:	(	5000.0,	150.0,	0.0,	0.0);	TRS	:	(	488.0,	160.0,	0.0,	0.0);
TRS	:	(	700.0,	160.0,	0.0,	0.0);	TRS	:	(	1100.0,	160.0,	0.0,	0.0);
TRS	:	(	1500.0,	160.0,	0.0,	0.0);	TRS	:	(	2000.0,	160.0,	0.0,	0.0);
TRS	:	(	2500.0,	160.0,	0.0,	0.0);	TRS	:	(	3000.0,	160.0,	0.0,	0.0);
TRS	:	(	3500.0,	160.0,	0.0,	0.0);	TRS	:	(	4000.0,	160.0,	0.0,	0.0);
TRS	:	(	4500.0,	160.0,	0.0,	0.0);	TRS	:	(	5000.0,	160.0,	0.0,	0.0);
TRS	:	(	533.0,	170.0,	0.0,	0.0);	TRS	:	(	700.0,	170.0,	0.0,	0.0);
TRS	:	(	1100.0,	170.0,	0.0,	0.0);	TRS	:	(	1500.0,	170.0,	0.0,	0.0);
TRS	:	(	2000.0,	170.0,	0.0,	0.0);	TRS	:	(	2500.0,	170.0,	0.0,	0.0);
TRS	:	(	3000.0,	170.0,	0.0,	0.0);	TRS	:	(	3500.0,	170.0,	0.0,	0.0);
TRS	:	(	4000.0,	170.0,	0.0,	0.0);	TRS	:	(	4500.0,	170.0,	0.0,	0.0);
TRS	:	(	5000.0,	170.0,	0.0,	0.0);	TRS	:	(	610.0,	180.0,	0.0,	0.0);
TRS	:	(	700.0,	180.0,	0.0,	0.0);	TRS	:	(	1100.0,	180.0,	0.0,	0.0);
TRS	:	(	1500.0,	180.0,	0.0,	0.0);	TRS	:	(	2000.0,	180.0,	0.0,	0.0);
TRS	:	(	2500.0,	180.0,	0.0,	0.0);	TRS	:	(	3000.0,	180.0,	0.0,	0.0);
TRS	:	(	3500.0,	180.0,	0.0,	0.0);	TRS	:	(	4000.0,	180.0,	0.0,	0.0);
TRS	:	(	4500.0,	180.0,	0.0,	0.0);	TRS	:	(	5000.0,	180.0,	0.0,	0.0);
TRS	:	(	750.0,	190.0,	0.0,	0.0);	TRS	:	(	1100.0,	190.0,	0.0,	0.0);
TRS	:	(	1500.0,	190.0,	0.0,	0.0);	TRS	:	(	2000.0,	190.0,	0.0,	0.0);
TRS	:	(	2500.0,	190.0,	0.0,	0.0);	TRS	:	(	3000.0,	190.0,	0.0,	0.0);
TRS	:	(	3500.0,	190.0,	0.0,	0.0);	TRS	:	(	4000.0,	190.0,	0.0,	0.0);
TRS	:	(	4500.0,	190.0,	0.0,	0.0);	TRS	:	(	5000.0,	190.0,	0.0,	0.0);
TRS	:	(	1829.0,	200.0,	0.0,	0.0);	TRS	:	(	2000.0,	200.0,	0.0,	0.0);
TRS	:	(	2500.0,	200.0,	0.0,	0.0);	TRS	:	(	3000.0,	200.0,	0.0,	0.0);
TRS	:	(	3500.0,	200.0,	0.0,	0.0);	TRS	:	(	4000.0,	200.0,	0.0,	0.0);
TRS	:	(	4500.0,	200.0,	0.0,	0.0);	TRS	:	(	5000.0,	200.0,	0.0,	0.0);
TRS	:	(	1829.0,	210.0,	0.0,	0.0);	TRS	:	(	2000.0,	210.0,	0.0,	0.0);
TRS	:	(	2500.0,	210.0,	0.0,	0.0);	TRS	:	(	3000.0,	210.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	3500.0,	210.0,	0.0,	0.0);	TRS	:	(	4000.0,	210.0,	0.0,	0.0);
TRS	:	(	4500.0,	210.0,	0.0,	0.0);	TRS	:	(	5000.0,	210.0,	0.0,	0.0);
TRS	:	(	1981.0,	220.0,	0.0,	0.0);	TRS	:	(	2000.0,	220.0,	0.0,	0.0);
TRS	:	(	2500.0,	220.0,	0.0,	0.0);	TRS	:	(	3000.0,	220.0,	0.0,	0.0);
TRS	:	(	3500.0,	220.0,	0.0,	0.0);	TRS	:	(	4000.0,	220.0,	0.0,	0.0);
TRS	:	(	4500.0,	220.0,	0.0,	0.0);	TRS	:	(	5000.0,	220.0,	0.0,	0.0);
TRS	:	(	2134.0,	230.0,	0.0,	0.0);	TRS	:	(	2500.0,	230.0,	0.0,	0.0);
TRS	:	(	3000.0,	230.0,	0.0,	0.0);	TRS	:	(	3500.0,	230.0,	0.0,	0.0);
TRS	:	(	4000.0,	230.0,	0.0,	0.0);	TRS	:	(	4500.0,	230.0,	0.0,	0.0);
TRS	:	(	5000.0,	230.0,	0.0,	0.0);	TRS	:	(	2438.0,	240.0,	0.0,	0.0);
TRS	:	(	2500.0,	240.0,	0.0,	0.0);	TRS	:	(	3000.0,	240.0,	0.0,	0.0);
TRS	:	(	3500.0,	240.0,	0.0,	0.0);	TRS	:	(	4000.0,	240.0,	0.0,	0.0);
TRS	:	(	4500.0,	240.0,	0.0,	0.0);	TRS	:	(	5000.0,	240.0,	0.0,	0.0);
TRS	:	(	2896.0,	250.0,	0.0,	0.0);	TRS	:	(	3000.0,	250.0,	0.0,	0.0);
TRS	:	(	3500.0,	250.0,	0.0,	0.0);	TRS	:	(	4000.0,	250.0,	0.0,	0.0);
TRS	:	(	4500.0,	250.0,	0.0,	0.0);	TRS	:	(	5000.0,	250.0,	0.0,	0.0);
TRS	:	(	3048.0,	260.0,	0.0,	0.0);	TRS	:	(	3500.0,	260.0,	0.0,	0.0);
TRS	:	(	4000.0,	260.0,	0.0,	0.0);	TRS	:	(	4500.0,	260.0,	0.0,	0.0);
TRS	:	(	5000.0,	260.0,	0.0,	0.0);	TRS	:	(	3658.0,	270.0,	0.0,	0.0);
TRS	:	(	4000.0,	270.0,	0.0,	0.0);	TRS	:	(	4500.0,	270.0,	0.0,	0.0);
TRS	:	(	5000.0,	270.0,	0.0,	0.0);	TRS	:	(	3962.0,	280.0,	0.0,	0.0);
TRS	:	(	4000.0,	280.0,	0.0,	0.0);	TRS	:	(	4500.0,	280.0,	0.0,	0.0);
TRS	:	(	5000.0,	280.0,	0.0,	0.0);	TRS	:	(	4572.0,	290.0,	0.0,	0.0);
TRS	:	(	5000.0,	290.0,	0.0,	0.0);	TRS	:	(	5182.0,	300.0,	0.0,	0.0);
TRS	:	(	4801.0,	310.0,	0.0,	0.0);	TRS	:	(	5000.0,	310.0,	0.0,	0.0);
TRS	:	(	4875.0,	320.0,	0.0,	0.0);	TRS	:	(	5000.0,	320.0,	0.0,	0.0);
TRS	:	(	6000.0,	330.0,	0.0,	0.0);	TRS	:	(	5500.0,	340.0,	0.0,	0.0);
TRS	:	(	5250.0,	350.0,	0.0,	0.0);	TRS	:	(	5125.0,	360.0,	0.0,	0.0);

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRLB4.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1984

YEAR: 1984

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M)		USTAR (M/S)	M-O LENGTH (M)	Z-O (M)	IPCODE	PRATE (mm/HR)
								RURAL	URBAN					
1	1	1	1	231.0	2.06	272.0	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	2	188.0	2.57	272.0	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
1	1	1	3	184.0	2.57	271.5	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
1	1	1	4	203.0	2.57	270.9	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	5	163.0	2.06	270.4	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	6	202.0	3.60	270.4	5	752.0	205.0	0.0000	0.0	0.0000	0	0.00
1	1	1	7	175.0	2.57	270.4	6	752.0	205.0	0.0000	0.0	0.0000	0	0.00
84	1	1	8	193.0	3.60	270.9	5	59.9	248.6	0.0000	0.0	0.0000	0	0.00
84	1	1	9	197.0	3.60	273.7	4	175.2	332.5	0.0000	0.0	0.0000	0	0.00
1	1	1	10	211.0	4.12	277.6	3	290.6	416.4	0.0000	0.0	0.0000	0	0.00
1	1	1	11	204.0	2.57	280.4	3	405.9	500.3	0.0000	0.0	0.0000	0	0.00
84	1	1	12	206.0	4.12	283.2	3	521.3	584.2	0.0000	0.0	0.0000	0	0.00
84	1	1	13	173.0	3.60	284.3	2	636.6	668.1	0.0000	0.0	0.0000	0	0.00
1	1	1	14	199.0	3.60	285.9	3	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	15	212.0	5.14	285.9	4	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	16	234.0	5.66	285.9	4	752.0	752.0	0.0000	0.0	0.0000	0	0.00
1	1	1	17	251.0	4.12	284.3	4	752.0	752.0	0.0000	0.0	0.0000	0	0.00
84	1	1	18	257.0	3.60	282.0	5	750.9	707.8	0.0000	0.0	0.0000	0	0.00
84	1	1	19	244.0	2.57	279.3	6	748.2	595.6	0.0000	0.0	0.0000	0	0.00
1	1	1	20	257.0	2.57	277.6	6	745.4	483.5	0.0000	0.0	0.0000	0	0.00
1	1	1	21	240.0	3.60	275.9	5	742.7	371.4	0.0000	0.0	0.0000	0	0.00
84	1	1	22	172.0	2.57	275.9	6	739.9	259.3	0.0000	0.0	0.0000	0	0.00
84	1	1	23	170.0	2.57	275.9	6	737.2	147.1	0.0000	0.0	0.0000	0	0.00
1	1	1	24	170.0	2.06	275.9	6	734.4	35.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TRS :	5000.00	10.00	0.21768	TRS :	4500.00	20.00	0.20169
TRS :	5000.00	20.00	0.17160	TRS :	2500.00	30.00	0.62538
TRS :	3000.00	30.00	0.48350	TRS :	3500.00	30.00	0.38940
TRS :	4000.00	30.00	0.32287	TRS :	4500.00	30.00	0.27370
TRS :	5000.00	30.00	0.23608	TRS :	2500.00	40.00	0.53555
TRS :	3000.00	40.00	0.42447	TRS :	3500.00	40.00	0.34858
TRS :	4000.00	40.00	0.29369	TRS :	4500.00	40.00	0.25240
TRS :	5000.00	40.00	0.22034	TRS :	1500.00	50.00	0.98386
TRS :	2000.00	50.00	0.66331	TRS :	2500.00	50.00	0.48847
TRS :	3000.00	50.00	0.38059	TRS :	3500.00	50.00	0.30800
TRS :	4000.00	50.00	0.25634	TRS :	4500.00	50.00	0.21797
TRS :	5000.00	50.00	0.18847	TRS :	1500.00	60.00	1.33293
TRS :	2000.00	60.00	0.92740	TRS :	2500.00	60.00	0.69207
TRS :	3000.00	60.00	0.54242	TRS :	3500.00	60.00	0.44003
TRS :	4000.00	60.00	0.36642	TRS :	4500.00	60.00	0.31141
TRS :	5000.00	60.00	0.26895	TRS :	1500.00	70.00	1.20098
TRS :	2000.00	70.00	0.78739	TRS :	2500.00	70.00	0.57552
TRS :	3000.00	70.00	0.44779	TRS :	3500.00	70.00	0.36268
TRS :	4000.00	70.00	0.30220	TRS :	4500.00	70.00	0.25723
TRS :	5000.00	70.00	0.22259	TRS :	838.00	80.00	4.04520
TRS :	1100.00	80.00	2.83358	TRS :	1500.00	80.00	1.71944
TRS :	2000.00	80.00	1.09725	TRS :	2500.00	80.00	0.79274
TRS :	3000.00	80.00	0.61372	TRS :	3500.00	80.00	0.49637
TRS :	4000.00	80.00	0.41355	TRS :	4500.00	80.00	0.35213
TRS :	5000.00	80.00	0.30494	TRS :	686.00	90.00	4.73184
TRS :	1100.00	90.00	3.20694	TRS :	1500.00	90.00	2.18275
TRS :	2000.00	90.00	1.42587	TRS :	2500.00	90.00	1.01795
TRS :	3000.00	90.00	0.77771	TRS :	3500.00	90.00	0.62306
TRS :	4000.00	90.00	0.51606	TRS :	4500.00	90.00	0.43796
TRS :	5000.00	90.00	0.37867	TRS :	533.00	100.00	6.73836
TRS :	700.00	100.00	4.80409	TRS :	1100.00	100.00	2.69581
TRS :	1500.00	100.00	1.88644	TRS :	2000.00	100.00	1.35094
TRS :	2500.00	100.00	1.04631	TRS :	3000.00	100.00	0.84679
TRS :	3500.00	100.00	0.70610	TRS :	4000.00	100.00	0.60192
TRS :	4500.00	100.00	0.52193	TRS :	5000.00	100.00	0.45878
TRS :	457.00	110.00	6.66737	TRS :	700.00	110.00	5.18835
TRS :	1100.00	110.00	3.19265	TRS :	1500.00	110.00	2.12105
TRS :	2000.00	110.00	1.43370	TRS :	2500.00	110.00	1.06613
TRS :	3000.00	110.00	0.83766	TRS :	3500.00	110.00	0.68189
TRS :	4000.00	110.00	0.56961	TRS :	4500.00	110.00	0.48553

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	110.00	0.42069	TRS	457.00	120.00	5.22930
TRS	700.00	120.00	4.60656	TRS	1100.00	120.00	2.93504
TRS	1500.00	120.00	2.21233	TRS	2000.00	120.00	1.58175
TRS	2500.00	120.00	1.20440	TRS	3000.00	120.00	0.96392
TRS	3500.00	120.00	0.79796	TRS	4000.00	120.00	0.67660
TRS	4500.00	120.00	0.58415	TRS	5000.00	120.00	0.51158
TRS	457.00	130.00	4.73927	TRS	700.00	130.00	3.39272
TRS	1100.00	130.00	2.55088	TRS	1500.00	130.00	2.04270
TRS	2000.00	130.00	1.47328	TRS	2500.00	130.00	1.10042
TRS	3000.00	130.00	0.86017	TRS	3500.00	130.00	0.69688
TRS	4000.00	130.00	0.58017	TRS	4500.00	130.00	0.49337
TRS	5000.00	130.00	0.42674	TRS	457.00	140.00	5.46960
TRS	700.00	140.00	3.44158	TRS	1100.00	140.00	2.01399
TRS	1500.00	140.00	1.44967	TRS	2000.00	140.00	1.07664
TRS	2500.00	140.00	0.85176	TRS	3000.00	140.00	0.69582
TRS	3500.00	140.00	0.58161	TRS	4000.00	140.00	0.49528
TRS	4500.00	140.00	0.42831	TRS	5000.00	140.00	0.37522
TRS	457.00	150.00	5.18402	TRS	700.00	150.00	3.76810
TRS	1100.00	150.00	2.49272	TRS	1500.00	150.00	1.72170
TRS	2000.00	150.00	1.16495	TRS	2500.00	150.00	0.86021
TRS	3000.00	150.00	0.67378	TRS	3500.00	150.00	0.54896
TRS	4000.00	150.00	0.45998	TRS	4500.00	150.00	0.39364
TRS	5000.00	150.00	0.34245	TRS	488.00	160.00	4.73847
TRS	700.00	160.00	3.59029	TRS	1100.00	160.00	2.45677
TRS	1500.00	160.00	1.72017	TRS	2000.00	160.00	1.23212
TRS	2500.00	160.00	0.95059	TRS	3000.00	160.00	0.76564
TRS	3500.00	160.00	0.63481	TRS	4000.00	160.00	0.53796
TRS	4500.00	160.00	0.46383	TRS	5000.00	160.00	0.40560
TRS	533.00	170.00	4.32616	TRS	700.00	170.00	3.69801
TRS	1100.00	170.00	2.50156	TRS	1500.00	170.00	1.77324
TRS	2000.00	170.00	1.26886	TRS	2500.00	170.00	0.97476
TRS	3000.00	170.00	0.78485	TRS	3500.00	170.00	0.65265
TRS	4000.00	170.00	0.55567	TRS	4500.00	170.00	0.48170
TRS	5000.00	170.00	0.42356	TRS	610.00	180.00	3.59181
TRS	700.00	180.00	3.21596	TRS	1100.00	180.00	2.16753
TRS	1500.00	180.00	1.61853	TRS	2000.00	180.00	1.21151
TRS	2500.00	180.00	0.95518	TRS	3000.00	180.00	0.78125
TRS	3500.00	180.00	0.65599	TRS	4000.00	180.00	0.56191
TRS	4500.00	180.00	0.48897	TRS	5000.00	180.00	0.43096
TRS	750.00	190.00	2.92263	TRS	1100.00	190.00	1.98972

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	1500.00	190.00	1.43266	TRS	2000.00	190.00	1.05075
TRS	2500.00	190.00	0.82233	TRS	3000.00	190.00	0.67140
TRS	3500.00	190.00	0.56411	TRS	4000.00	190.00	0.48411
TRS	4500.00	190.00	0.42229	TRS	5000.00	190.00	0.37322
TRS	1829.00	200.00	1.31161	TRS	2000.00	200.00	1.18291
TRS	2500.00	200.00	0.90775	TRS	3000.00	200.00	0.72797
TRS	3500.00	200.00	0.60208	TRS	4000.00	200.00	0.50967
TRS	4500.00	200.00	0.43935	TRS	5000.00	200.00	0.38431
TRS	1829.00	210.00	1.33019	TRS	2000.00	210.00	1.20378
TRS	2500.00	210.00	0.92937	TRS	3000.00	210.00	0.74698
TRS	3500.00	210.00	0.61794	TRS	4000.00	210.00	0.52264
TRS	4500.00	210.00	0.44986	TRS	5000.00	210.00	0.39275
TRS	1981.00	220.00	0.96399	TRS	2000.00	220.00	0.95447
TRS	2500.00	220.00	0.75199	TRS	3000.00	220.00	0.61419
TRS	3500.00	220.00	0.51467	TRS	4000.00	220.00	0.44013
TRS	4500.00	220.00	0.38250	TRS	5000.00	220.00	0.33674
TRS	2134.00	230.00	0.90728	TRS	2500.00	230.00	0.76804
TRS	3000.00	230.00	0.63001	TRS	3500.00	230.00	0.53022
TRS	4000.00	230.00	0.45523	TRS	4500.00	230.00	0.39691
TRS	5000.00	230.00	0.35043	TRS	2438.00	240.00	0.78137
TRS	2500.00	240.00	0.76101	TRS	3000.00	240.00	0.62525
TRS	3500.00	240.00	0.52640	TRS	4000.00	240.00	0.45179
TRS	4500.00	240.00	0.39366	TRS	5000.00	240.00	0.34725
TRS	2896.00	250.00	0.60022	TRS	3000.00	250.00	0.57587
TRS	3500.00	250.00	0.47946	TRS	4000.00	250.00	0.40797
TRS	4500.00	250.00	0.35300	TRS	5000.00	250.00	0.30966
TRS	3048.00	260.00	0.73435	TRS	3500.00	260.00	0.62781
TRS	4000.00	260.00	0.53650	TRS	4500.00	260.00	0.46514
TRS	5000.00	260.00	0.40825	TRS	3658.00	270.00	0.71037
TRS	4000.00	270.00	0.63466	TRS	4500.00	270.00	0.54618
TRS	5000.00	270.00	0.47687	TRS	3962.00	280.00	0.65178
TRS	4000.00	280.00	0.64378	TRS	4500.00	280.00	0.55229
TRS	5000.00	280.00	0.48084	TRS	4572.00	290.00	0.53621
TRS	5000.00	290.00	0.47458	TRS	5182.00	300.00	0.54163
TRS	4801.00	310.00	0.49503	TRS	5000.00	310.00	0.46622
TRS	4875.00	320.00	0.42843	TRS	5000.00	320.00	0.41270
TRS	6000.00	330.00	0.25611	TRS	5500.00	340.00	0.23871
TRS	5250.00	350.00	0.24963	TRS	5125.00	360.00	0.26851

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	3.33442	(84062924)	TRS	4500.00	20.00	3.09465	(84030624)
TRS	5000.00	20.00	2.64276	(84030624)	TRS	2500.00	30.00	12.46093	(84062924)
TRS	3000.00	30.00	10.28012	(84062924)	TRS	3500.00	30.00	8.68044	(84062924)
TRS	4000.00	30.00	7.46900	(84062924)	TRS	4500.00	30.00	6.52271	(84062924)
TRS	5000.00	30.00	5.76558	(84062924)	TRS	2500.00	40.00	7.37045c	(84101524)
TRS	3000.00	40.00	6.37256c	(84101524)	TRS	3500.00	40.00	5.60632c	(84101524)
TRS	4000.00	40.00	4.99427c	(84101524)	TRS	4500.00	40.00	4.49662c	(84101524)
TRS	5000.00	40.00	4.08291c	(84101524)	TRS	1500.00	50.00	14.01242	(84042324)
TRS	2000.00	50.00	10.40736	(84042324)	TRS	2500.00	50.00	8.03191	(84042324)
TRS	3000.00	50.00	6.41981	(84042324)	TRS	3500.00	50.00	5.27372	(84042324)
TRS	4000.00	50.00	4.42539	(84042324)	TRS	4500.00	50.00	3.77824	(84042324)
TRS	5000.00	50.00	3.27210	(84042324)	TRS	1500.00	60.00	16.41715	(84012524)
TRS	2000.00	60.00	12.25995	(84012524)	TRS	2500.00	60.00	9.40839	(84012524)
TRS	3000.00	60.00	7.45191	(84012524)	TRS	3500.00	60.00	6.06564	(84012524)
TRS	4000.00	60.00	5.19469c	(84010624)	TRS	4500.00	60.00	4.63806c	(84010624)
TRS	5000.00	60.00	4.17395c	(84010624)	TRS	1500.00	70.00	12.79192c	(84121024)
TRS	2000.00	70.00	8.88311c	(84121024)	TRS	2500.00	70.00	6.43673	(84041824)
TRS	3000.00	70.00	5.32545	(84041824)	TRS	3500.00	70.00	4.50972	(84041824)
TRS	4000.00	70.00	3.88815	(84041824)	TRS	4500.00	70.00	3.40005	(84041824)
TRS	5000.00	70.00	3.00768	(84041824)	TRS	838.00	80.00	32.59026c	(84022324)
TRS	1100.00	80.00	29.02001	(84041824)	TRS	1500.00	80.00	19.31196	(84041824)
TRS	2000.00	80.00	11.67137	(84041824)	TRS	2500.00	80.00	9.54115c	(84040624)
TRS	3000.00	80.00	8.08975c	(84040624)	TRS	3500.00	80.00	6.79470c	(84040624)
TRS	4000.00	80.00	5.73438c	(84040624)	TRS	4500.00	80.00	4.88521c	(84040624)
TRS	5000.00	80.00	4.20578c	(84040624)	TRS	686.00	90.00	43.23126c	(84050124)
TRS	1100.00	90.00	32.94385c	(84040724)	TRS	1500.00	90.00	19.56635c	(84022324)
TRS	2000.00	90.00	13.17159c	(84022324)	TRS	2500.00	90.00	9.34621c	(84022324)
TRS	3000.00	90.00	7.00609c	(84022324)	TRS	3500.00	90.00	5.66175	(84012824)
TRS	4000.00	90.00	5.06477	(84012824)	TRS	4500.00	90.00	4.51399	(84012824)
TRS	5000.00	90.00	4.02880	(84012824)	TRS	533.00	100.00	60.81743c	(84091024)
TRS	700.00	100.00	41.32368	(84022924)	TRS	1100.00	100.00	27.50439c	(84030224)
TRS	1500.00	100.00	19.11577c	(84030224)	TRS	2000.00	100.00	12.24477c	(84030224)
TRS	2500.00	100.00	10.23978c	(84101524)	TRS	3000.00	100.00	9.77086c	(84101524)
TRS	3500.00	100.00	8.53444c	(84101524)	TRS	4000.00	100.00	7.22858c	(84101524)
TRS	4500.00	100.00	6.07600c	(84101524)	TRS	5000.00	100.00	5.11814c	(84101524)
TRS	457.00	110.00	79.82062c	(84111224)	TRS	700.00	110.00	61.01451c	(84091024)
TRS	1100.00	110.00	28.34966c	(84091024)	TRS	1500.00	110.00	18.33773c	(84010524)
TRS	2000.00	110.00	12.84751	(84022924)	TRS	2500.00	110.00	12.30905c	(84031724)
TRS	3000.00	110.00	11.02228c	(84031724)	TRS	3500.00	110.00	9.73537c	(84101424)
TRS	4000.00	110.00	9.14206c	(84101424)	TRS	4500.00	110.00	8.46712c	(84101424)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	
TRS	5000.00	110.00	7.79419c (84101424)	TRS	457.00	120.00	53.06405c (84022524)	
TRS	700.00	120.00	50.97360c (84111224)	TRS	1100.00	120.00	34.00413c (84091024)	
TRS	1500.00	120.00	28.31320c (84091024)	TRS	2000.00	120.00	19.80745c (84091024)	
TRS	2500.00	120.00	13.43121c (84091024)	TRS	3000.00	120.00	9.74544c (84081024)	
TRS	3500.00	120.00	8.70376c (84081024)	TRS	4000.00	120.00	8.00944c (84080924)	
TRS	4500.00	120.00	7.41190c (84080924)	TRS	5000.00	120.00	6.78594c (84080924)	
TRS	457.00	130.00	42.37828c (84112924)	TRS	700.00	130.00	40.59194c (84110524)	
TRS	1100.00	130.00	25.24950c (84022524)	TRS	1500.00	130.00	22.27195c (84020124)	
TRS	2000.00	130.00	18.14078c (84111224)	TRS	2500.00	130.00	15.95774c (84111224)	
TRS	3000.00	130.00	13.89763c (84111224)	TRS	3500.00	130.00	12.10508c (84111224)	
TRS	4000.00	130.00	10.58697c (84111224)	TRS	4500.00	130.00	9.31251c (84111224)	
TRS	5000.00	130.00	8.24385c (84111224)	TRS	457.00	140.00	53.22352c (84040124)	
TRS	700.00	140.00	36.28163c (84062424)	TRS	1100.00	140.00	19.58394c (84081724)	
TRS	1500.00	140.00	20.44963c (84110524)	TRS	2000.00	140.00	18.49487c (84110524)	
TRS	2500.00	140.00	14.49086c (84110524)	TRS	3000.00	140.00	11.44030c (84110524)	
TRS	3500.00	140.00	9.35206c (84110524)	TRS	4000.00	140.00	7.88407c (84110524)	
TRS	4500.00	140.00	6.80088c (84110524)	TRS	5000.00	140.00	5.96621c (84110524)	
TRS	457.00	150.00	67.02847c (84010324)	TRS	700.00	150.00	35.65871c (84040124)	
TRS	1100.00	150.00	29.24250c (84040124)	TRS	1500.00	150.00	20.50979c (84040124)	
TRS	2000.00	150.00	15.07362c (84020724)	TRS	2500.00	150.00	11.03761c (84020724)	
TRS	3000.00	150.00	9.61794 (84010724)	TRS	3500.00	150.00	8.41527 (84010724)	
TRS	4000.00	150.00	7.96206c (84112924)	TRS	4500.00	150.00	7.50797c (84112924)	
TRS	5000.00	150.00	7.00506c (84112924)	TRS	488.00	160.00	45.15665 (84053024)	
TRS	700.00	160.00	39.43480c (84010324)	TRS	1100.00	160.00	34.10644c (84010324)	
TRS	1500.00	160.00	21.68968 (84100124)	TRS	2000.00	160.00	17.08597 (84100124)	
TRS	2500.00	160.00	13.13941 (84100124)	TRS	3000.00	160.00	10.26925 (84100124)	
TRS	3500.00	160.00	8.59804c (84040124)	TRS	4000.00	160.00	7.54709c (84040124)	
TRS	4500.00	160.00	6.64018c (84040124)	TRS	5000.00	160.00	5.87064c (84040124)	
TRS	533.00	170.00	60.00596 (84053024)	TRS	700.00	170.00	47.07053 (84053024)	
TRS	1100.00	170.00	25.39741 (84053024)	TRS	1500.00	170.00	16.76673c (84110524)	
TRS	2000.00	170.00	14.35662c (84011624)	TRS	2500.00	170.00	12.32283c (84011624)	
TRS	3000.00	170.00	10.46770c (84011624)	TRS	3500.00	170.00	8.93527c (84011624)	
TRS	4000.00	170.00	7.69356c (84011624)	TRS	4500.00	170.00	6.68871c (84011624)	
TRS	5000.00	170.00	5.87000c (84011624)	TRS	610.00	180.00	39.00737c (84053124)	
TRS	700.00	180.00	30.13869c (84053124)	TRS	1100.00	180.00	20.38009 (84011424)	
TRS	1500.00	180.00	18.68200 (84053024)	TRS	2000.00	180.00	16.03618 (84053024)	
TRS	2500.00	180.00	13.34685 (84053024)	TRS	3000.00	180.00	11.13770 (84053024)	
TRS	3500.00	180.00	9.40008 (84053024)	TRS	4000.00	180.00	8.03714 (84053024)	
TRS	4500.00	180.00	6.95753 (84053024)	TRS	5000.00	180.00	6.09124 (84053024)	
TRS	750.00	190.00	31.11892c (84011324)	TRS	1100.00	190.00	20.51138c (84011324)	

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	1500.00	190.00	15.56403c (84053124)	TRS	2000.00	190.00	12.08828c (84053124)	TRS	2000.00	190.00	12.08828c (84053124)
TRS	2500.00	190.00	9.80855c (84053124)	TRS	3000.00	190.00	8.21757c (84053124)	TRS	3000.00	190.00	8.21757c (84053124)
TRS	3500.00	190.00	7.03867c (84053124)	TRS	4000.00	190.00	6.13204c (84053124)	TRS	4000.00	190.00	6.13204c (84053124)
TRS	4500.00	190.00	5.41482c (84053124)	TRS	5000.00	190.00	4.83452c (84053124)	TRS	5000.00	190.00	4.83452c (84053124)
TRS	1829.00	200.00	18.22387c (84011324)	TRS	2000.00	200.00	16.48425c (84011324)	TRS	2000.00	200.00	16.48425c (84011324)
TRS	2500.00	200.00	12.64024c (84011324)	TRS	3000.00	200.00	10.07479c (84011324)	TRS	3000.00	200.00	10.07479c (84011324)
TRS	3500.00	200.00	8.25289c (84011324)	TRS	4000.00	200.00	6.90862c (84011324)	TRS	4000.00	200.00	6.90862c (84011324)
TRS	4500.00	200.00	5.88576c (84011324)	TRS	5000.00	200.00	5.08746c (84011324)	TRS	5000.00	200.00	5.08746c (84011324)
TRS	1829.00	210.00	13.64601 (84102524)	TRS	2000.00	210.00	12.95069 (84102524)	TRS	2000.00	210.00	12.95069 (84102524)
TRS	2500.00	210.00	11.25159 (84102524)	TRS	3000.00	210.00	9.92360 (84102524)	TRS	3000.00	210.00	9.92360 (84102524)
TRS	3500.00	210.00	8.85673 (84102524)	TRS	4000.00	210.00	7.98075 (84102524)	TRS	4000.00	210.00	7.98075 (84102524)
TRS	4500.00	210.00	7.24881 (84102524)	TRS	5000.00	210.00	6.62842 (84102524)	TRS	5000.00	210.00	6.62842 (84102524)
TRS	1981.00	220.00	11.25692c (84121524)	TRS	2000.00	220.00	11.16915c (84121524)	TRS	2000.00	220.00	11.16915c (84121524)
TRS	2500.00	220.00	9.19451c (84121524)	TRS	3000.00	220.00	7.72680c (84121524)	TRS	3000.00	220.00	7.72680c (84121524)
TRS	3500.00	220.00	6.59829c (84121524)	TRS	4000.00	220.00	5.71692c (84121524)	TRS	4000.00	220.00	5.71692c (84121524)
TRS	4500.00	220.00	5.01372c (84121524)	TRS	5000.00	220.00	4.44240c (84121524)	TRS	5000.00	220.00	4.44240c (84121524)
TRS	2134.00	230.00	11.21928 (84122724)	TRS	2500.00	230.00	9.45899 (84122724)	TRS	2500.00	230.00	9.45899 (84122724)
TRS	3000.00	230.00	7.68729 (84122724)	TRS	3500.00	230.00	6.39524 (84122724)	TRS	3500.00	230.00	6.39524 (84122724)
TRS	4000.00	230.00	5.42174 (84122724)	TRS	4500.00	230.00	4.69865 (84092424)	TRS	4500.00	230.00	4.69865 (84092424)
TRS	5000.00	230.00	4.21308 (84092424)	TRS	2438.00	240.00	9.73881 (84122724)	TRS	2438.00	240.00	9.73881 (84122724)
TRS	2500.00	240.00	9.48153 (84122724)	TRS	3000.00	240.00	7.74763 (84122724)	TRS	3000.00	240.00	7.74763 (84122724)
TRS	3500.00	240.00	6.46769 (84122724)	TRS	4000.00	240.00	5.49432 (84122724)	TRS	4000.00	240.00	5.49432 (84122724)
TRS	4500.00	240.00	4.73550 (84122724)	TRS	5000.00	240.00	4.13146 (84122724)	TRS	5000.00	240.00	4.13146 (84122724)
TRS	2896.00	250.00	7.39446c (84011724)	TRS	3000.00	250.00	7.11049c (84011724)	TRS	3000.00	250.00	7.11049c (84011724)
TRS	3500.00	250.00	5.95378c (84011724)	TRS	4000.00	250.00	5.06548c (84011724)	TRS	4000.00	250.00	5.06548c (84011724)
TRS	4500.00	250.00	4.36917c (84011724)	TRS	5000.00	250.00	3.81316c (84011724)	TRS	5000.00	250.00	3.81316c (84011724)
TRS	3048.00	260.00	7.93553c (84011724)	TRS	3500.00	260.00	6.81442c (84011724)	TRS	3500.00	260.00	6.81442c (84011724)
TRS	4000.00	260.00	5.83072c (84011724)	TRS	4500.00	260.00	5.05014c (84011724)	TRS	4500.00	260.00	5.05014c (84011724)
TRS	5000.00	260.00	4.42192c (84011724)	TRS	3658.00	270.00	7.22551c (84121424)	TRS	3658.00	270.00	7.22551c (84121424)
TRS	4000.00	270.00	6.49143c (84061124)	TRS	4500.00	270.00	5.75323c (84061124)	TRS	4500.00	270.00	5.75323c (84061124)
TRS	5000.00	270.00	5.11934c (84061124)	TRS	3962.00	280.00	8.16396c (84052824)	TRS	3962.00	280.00	8.16396c (84052824)
TRS	4000.00	280.00	8.07662c (84052824)	TRS	4500.00	280.00	7.17782 (84060724)	TRS	4500.00	280.00	7.17782 (84060724)
TRS	5000.00	280.00	6.44420 (84060724)	TRS	4572.00	290.00	5.69764c (84060624)	TRS	4572.00	290.00	5.69764c (84060624)
TRS	5000.00	290.00	5.27651c (84060624)	TRS	5182.00	300.00	6.43437c (84073124)	TRS	5182.00	300.00	6.43437c (84073124)
TRS	4801.00	310.00	6.42752c (84021024)	TRS	5000.00	310.00	5.98974c (84021024)	TRS	5000.00	310.00	5.98974c (84021024)
TRS	4875.00	320.00	5.26738c (84052324)	TRS	5000.00	320.00	5.11507c (84052324)	TRS	5000.00	320.00	5.11507c (84052324)
TRS	6000.00	330.00	4.38587c (84082424)	TRS	5500.00	340.00	5.39812c (84071424)	TRS	5500.00	340.00	5.39812c (84071424)
TRS	5250.00	350.00	3.98133c (84070124)	TRS	5125.00	360.00	4.69902c (84080724)	TRS	5125.00	360.00	4.69902c (84080724)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YMMDDHH)
TRS	5000.00	10.00	8.73069c	(84042708)	TRS	4500.00	20.00	7.44102c	(84042808)
TRS	5000.00	20.00	6.61758c	(84042808)	TRS	2500.00	30.00	20.61942c	(84082008)
TRS	3000.00	30.00	17.77439c	(84082008)	TRS	3500.00	30.00	15.54172c	(84082008)
TRS	4000.00	30.00	13.76916c	(84082008)	TRS	4500.00	30.00	12.32459c	(84082008)
TRS	5000.00	30.00	11.12700c	(84082008)	TRS	2500.00	40.00	16.82348c	(84071824)
TRS	3000.00	40.00	13.80323c	(84071824)	TRS	3500.00	40.00	11.67277c	(84101524)
TRS	4000.00	40.00	10.61220c	(84101524)	TRS	4500.00	40.00	9.70892c	(84101524)
TRS	5000.00	40.00	8.92971c	(84101524)	TRS	1500.00	50.00	26.76895	(84042308)
TRS	2000.00	50.00	20.02056	(84042308)	TRS	2500.00	50.00	15.49727	(84042308)
TRS	3000.00	50.00	12.40630	(84042308)	TRS	3500.00	50.00	10.20120	(84042308)
TRS	4000.00	50.00	8.56566	(84042308)	TRS	4500.00	50.00	7.31636	(84042308)
TRS	5000.00	50.00	6.33835	(84042308)	TRS	1500.00	60.00	38.43734	(84012508)
TRS	2000.00	60.00	29.15809	(84012508)	TRS	2500.00	60.00	22.63203	(84012508)
TRS	3000.00	60.00	18.07832	(84012508)	TRS	3500.00	60.00	14.81304	(84012508)
TRS	4000.00	60.00	12.39231	(84012508)	TRS	4500.00	60.00	10.54652	(84012508)
TRS	5000.00	60.00	9.10500	(84012508)	TRS	1500.00	70.00	32.76302c	(84121024)
TRS	2000.00	70.00	22.73960c	(84121024)	TRS	2500.00	70.00	16.06959c	(84121024)
TRS	3000.00	70.00	11.86851c	(84121024)	TRS	3500.00	70.00	9.12106c	(84121024)
TRS	4000.00	70.00	7.61315	(84041808)	TRS	4500.00	70.00	6.84967	(84041808)
TRS	5000.00	70.00	6.19596	(84041808)	TRS	838.00	80.00	57.56250	(84041808)
TRS	1100.00	80.00	51.98330	(84041808)	TRS	1500.00	80.00	34.83436	(84041808)
TRS	2000.00	80.00	27.08991	(84040624)	TRS	2500.00	80.00	25.01075	(84040624)
TRS	3000.00	80.00	21.56427	(84040624)	TRS	3500.00	80.00	18.28250	(84040624)
TRS	4000.00	80.00	15.52217	(84040624)	TRS	4500.00	80.00	13.27915	(84040624)
TRS	5000.00	80.00	11.46816	(84040624)	TRS	686.00	90.00	71.48714c	(84101508)
TRS	1100.00	90.00	76.42992c	(84120308)	TRS	1500.00	90.00	41.94506	(84030824)
TRS	2000.00	90.00	28.81393	(84022308)	TRS	2500.00	90.00	21.10089	(84022308)
TRS	3000.00	90.00	15.95314	(84022308)	TRS	3500.00	90.00	12.80747c	(84101424)
TRS	4000.00	90.00	11.27989c	(84101424)	TRS	4500.00	90.00	9.94526c	(84101424)
TRS	5000.00	90.00	8.79572c	(84101424)	TRS	533.00	100.00	118.83541c	(84090108)
TRS	700.00	100.00	76.14833c	(84101408)	TRS	1100.00	100.00	50.21237	(84020508)
TRS	1500.00	100.00	42.73550	(84012808)	TRS	2000.00	100.00	28.56137	(84033024)
TRS	2500.00	100.00	30.71934c	(84101508)	TRS	3000.00	100.00	29.31259c	(84101508)
TRS	3500.00	100.00	25.60331c	(84101508)	TRS	4000.00	100.00	21.68575c	(84101508)
TRS	4500.00	100.00	18.22800c	(84101508)	TRS	5000.00	100.00	15.35443c	(84101508)
TRS	457.00	110.00	95.50285c	(84111224)	TRS	700.00	110.00	80.47753c	(84031708)
TRS	1100.00	110.00	74.55529c	(84090108)	TRS	1500.00	110.00	38.73736c	(84022024)
TRS	2000.00	110.00	28.95554c	(84022024)	TRS	2500.00	110.00	27.99582c	(84101408)
TRS	3000.00	110.00	29.31031c	(84101408)	TRS	3500.00	110.00	28.58850c	(84101408)
TRS	4000.00	110.00	26.98056c	(84101408)	TRS	4500.00	110.00	25.06556c	(84101408)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	110.00	23.12095c (84101408)	TRS	457.00	120.00	79.09338 (84110524)				
TRS	700.00	120.00	69.26022 (84011116)	TRS	1100.00	120.00	57.12147c (84080608)				
TRS	1500.00	120.00	41.30149c (84020624)	TRS	2000.00	120.00	35.54775c (84031708)				
TRS	2500.00	120.00	30.33325c (84031708)	TRS	3000.00	120.00	25.08213c (84080608)				
TRS	3500.00	120.00	24.12803c (84080608)	TRS	4000.00	120.00	22.95889c (84080608)				
TRS	4500.00	120.00	21.63071c (84080608)	TRS	5000.00	120.00	20.24949c (84080608)				
TRS	457.00	130.00	105.64596c (84112908)	TRS	700.00	130.00	62.84023 (84110524)				
TRS	1100.00	130.00	52.82800c (84031324)	TRS	1500.00	130.00	47.77935 (84020108)				
TRS	2000.00	130.00	30.49586 (84100108)	TRS	2500.00	130.00	24.94470c (84120824)				
TRS	3000.00	130.00	22.12741c (84111224)	TRS	3500.00	130.00	20.22038c (84111224)				
TRS	4000.00	130.00	18.07619c (84111224)	TRS	4500.00	130.00	16.00164c (84111224)				
TRS	5000.00	130.00	14.13103c (84111224)	TRS	457.00	140.00	91.54675c (84040108)				
TRS	700.00	140.00	69.22210 (84010724)	TRS	1100.00	140.00	36.66734 (84070908)				
TRS	1500.00	140.00	32.71048 (84110524)	TRS	2000.00	140.00	29.64980 (84110524)				
TRS	2500.00	140.00	23.04138 (84110524)	TRS	3000.00	140.00	18.21401 (84110524)				
TRS	3500.00	140.00	15.05180 (84110524)	TRS	4000.00	140.00	12.89410 (84110524)				
TRS	4500.00	140.00	11.31687 (84110524)	TRS	5000.00	140.00	10.09450 (84110524)				
TRS	457.00	150.00	98.09992c (84010316)	TRS	700.00	150.00	86.14521 (84100124)				
TRS	1100.00	150.00	60.11439c (84040108)	TRS	1500.00	150.00	42.25334c (84040108)				
TRS	2000.00	150.00	29.95893 (84010724)	TRS	2500.00	150.00	29.12916 (84010724)				
TRS	3000.00	150.00	26.48152 (84010724)	TRS	3500.00	150.00	24.14144c (84112908)				
TRS	4000.00	150.00	23.37759c (84112908)	TRS	4500.00	150.00	22.13016c (84112908)				
TRS	5000.00	150.00	20.69903c (84112908)	TRS	488.00	160.00	77.55795c (84110516)				
TRS	700.00	160.00	61.58148 (84011916)	TRS	1100.00	160.00	55.54637 (84100124)				
TRS	1500.00	160.00	58.26250 (84100124)	TRS	2000.00	160.00	47.29841 (84100124)				
TRS	2500.00	160.00	36.77619 (84100124)	TRS	3000.00	160.00	28.85717 (84100124)				
TRS	3500.00	160.00	23.08115 (84100124)	TRS	4000.00	160.00	18.83100 (84100124)				
TRS	4500.00	160.00	15.64231 (84100124)	TRS	5000.00	160.00	13.20056 (84100124)				
TRS	533.00	170.00	109.87396c (84110516)	TRS	700.00	170.00	92.62189c (84110516)				
TRS	1100.00	170.00	51.64367c (84110516)	TRS	1500.00	170.00	31.85016 (84101108)				
TRS	2000.00	170.00	27.28527c (84011616)	TRS	2500.00	170.00	23.82436c (84011616)				
TRS	3000.00	170.00	20.38955c (84011616)	TRS	3500.00	170.00	17.46456c (84011616)				
TRS	4000.00	170.00	15.05970c (84011616)	TRS	4500.00	170.00	13.09883c (84011616)				
TRS	5000.00	170.00	12.18675 (84010124)	TRS	610.00	180.00	73.08158c (84053124)				
TRS	700.00	180.00	58.56334c (84053124)	TRS	1100.00	180.00	46.32707c (84110516)				
TRS	1500.00	180.00	40.08686c (84110516)	TRS	2000.00	180.00	35.41912 (84053008)				
TRS	2500.00	180.00	30.45323 (84053008)	TRS	3000.00	180.00	25.91236 (84053008)				
TRS	3500.00	180.00	22.16598 (84053008)	TRS	4000.00	180.00	19.14458 (84053008)				
TRS	4500.00	180.00	16.75127c (84111324)	TRS	5000.00	180.00	15.62154c (84111324)				
TRS	750.00	190.00	60.59539 (84101008)	TRS	1100.00	190.00	47.89532 (84101008)				

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	33.23013	(84101008)	TRS	2000.00	190.00	21.95798	(84091808)
TRS	2500.00	190.00	17.25954	(84091808)	TRS	3000.00	190.00	14.02294	(84091808)
TRS	3500.00	190.00	12.26982c	(84053124)	TRS	4000.00	190.00	11.13490c	(84053124)
TRS	4500.00	190.00	10.19414	(84020808)	TRS	5000.00	190.00	9.44708	(84020808)
TRS	1829.00	200.00	23.92658c	(84082108)	TRS	2000.00	200.00	21.66345c	(84082108)
TRS	2500.00	200.00	18.90515	(84020808)	TRS	3000.00	200.00	17.16574	(84020808)
TRS	3500.00	200.00	15.58203	(84020808)	TRS	4000.00	200.00	14.18833	(84020808)
TRS	4500.00	200.00	12.97379	(84020808)	TRS	5000.00	200.00	11.91607	(84020808)
TRS	1829.00	210.00	34.72967c	(84100708)	TRS	2000.00	210.00	32.74697c	(84100708)
TRS	2500.00	210.00	27.96688c	(84100708)	TRS	3000.00	210.00	24.30715c	(84100708)
TRS	3500.00	210.00	21.43501c	(84100708)	TRS	4000.00	210.00	19.12853c	(84100708)
TRS	4500.00	210.00	17.23564c	(84100708)	TRS	5000.00	210.00	15.65532c	(84100708)
TRS	1981.00	220.00	24.87514c	(84121508)	TRS	2000.00	220.00	24.71206c	(84121508)
TRS	2500.00	220.00	20.92702c	(84121508)	TRS	3000.00	220.00	17.96739c	(84121508)
TRS	3500.00	220.00	15.60388c	(84121508)	TRS	4000.00	220.00	13.71219c	(84121508)
TRS	4500.00	220.00	12.17220c	(84121508)	TRS	5000.00	220.00	10.89963c	(84121508)
TRS	2134.00	230.00	19.48647	(84121524)	TRS	2500.00	230.00	16.60242	(84121524)
TRS	3000.00	230.00	13.64195	(84121524)	TRS	3500.00	230.00	11.44881	(84121524)
TRS	4000.00	230.00	9.77739	(84121524)	TRS	4500.00	230.00	8.47040	(84121524)
TRS	5000.00	230.00	7.42630	(84121524)	TRS	2438.00	240.00	14.95029	(84122624)
TRS	2500.00	240.00	14.56223	(84122624)	TRS	3000.00	240.00	11.92994	(84122624)
TRS	3500.00	240.00	9.97412	(84122624)	TRS	4000.00	240.00	8.48333	(84122624)
TRS	4500.00	240.00	7.32045	(84122624)	TRS	5000.00	240.00	6.62191c	(84061024)
TRS	2896.00	250.00	11.53712c	(84072824)	TRS	3000.00	250.00	11.09375c	(84072824)
TRS	3500.00	250.00	9.85189c	(84100324)	TRS	4000.00	250.00	8.83130c	(84100324)
TRS	4500.00	250.00	7.94762c	(84100324)	TRS	5000.00	250.00	7.18628c	(84100324)
TRS	3048.00	260.00	18.44444	(84011724)	TRS	3500.00	260.00	15.98963	(84011724)
TRS	4000.00	260.00	13.77778	(84011724)	TRS	4500.00	260.00	11.99215	(84011724)
TRS	5000.00	260.00	10.53865	(84011724)	TRS	3658.00	270.00	20.09515c	(84061108)
TRS	4000.00	270.00	18.66997c	(84061108)	TRS	4500.00	270.00	16.70445c	(84061108)
TRS	5000.00	270.00	14.94926c	(84061108)	TRS	3962.00	280.00	19.38942	(84052808)
TRS	4000.00	280.00	19.18197	(84052808)	TRS	4500.00	280.00	16.78263	(84052808)
TRS	5000.00	280.00	14.90728	(84060724)	TRS	4572.00	290.00	16.59955c	(84080308)
TRS	5000.00	290.00	14.94360c	(84080308)	TRS	5182.00	300.00	15.78518c	(84073108)
TRS	4801.00	310.00	12.59580	(84021308)	TRS	5000.00	310.00	12.02800c	(84072908)
TRS	4875.00	320.00	15.18632c	(84070408)	TRS	5000.00	320.00	14.47497c	(84070408)
TRS	6000.00	330.00	12.71732c	(84082408)	TRS	5500.00	340.00	7.91294	(84071424)
TRS	5250.00	350.00	11.86874c	(84070124)	TRS	5125.00	360.00	12.33492	(84080724)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	10.00	16.11542 (84081806)	TRS	4500.00	20.00	14.72881 (84072521)
TRS	5000.00	20.00	13.37364 (84063021)	TRS	2500.00	30.00	42.95775 (84062921)
TRS	3000.00	30.00	36.22773 (84062921)	TRS	3500.00	30.00	31.11432 (84062921)
TRS	4000.00	30.00	27.15509 (84062921)	TRS	4500.00	30.00	23.99955 (84062921)
TRS	5000.00	30.00	21.43255 (84062921)	TRS	2500.00	40.00	33.64695 (84071821)
TRS	3000.00	40.00	27.60646 (84071821)	TRS	3500.00	40.00	23.09907 (84071821)
TRS	4000.00	40.00	19.64971 (84071821)	TRS	4500.00	40.00	16.95178 (84071821)
TRS	5000.00	40.00	14.80041 (84071821)	TRS	1500.00	50.00	48.36207 (84050409)
TRS	2000.00	50.00	34.51632 (84020406)	TRS	2500.00	50.00	26.06333 (84020406)
TRS	3000.00	50.00	20.48137 (84020406)	TRS	3500.00	50.00	16.59888 (84020406)
TRS	4000.00	50.00	13.77520 (84020406)	TRS	4500.00	50.00	12.44799 (84120918)
TRS	5000.00	50.00	11.44511 (84120918)	TRS	1500.00	60.00	73.01810 (84012509)
TRS	2000.00	60.00	52.95144 (84012509)	TRS	2500.00	60.00	39.88986 (84012509)
TRS	3000.00	60.00	31.20437 (84012509)	TRS	3500.00	60.00	25.17081 (84012509)
TRS	4000.00	60.00	20.80013 (84012509)	TRS	4500.00	60.00	17.52670 (84012509)
TRS	5000.00	60.00	15.00658 (84012509)	TRS	1500.00	70.00	45.78724 (84021403)
TRS	2000.00	70.00	34.38725 (84021403)	TRS	2500.00	70.00	26.85409 (84021403)
TRS	3000.00	70.00	21.75827 (84021403)	TRS	3500.00	70.00	18.11695 (84021403)
TRS	4000.00	70.00	15.41091 (84021403)	TRS	4500.00	70.00	13.76699 (84041806)
TRS	5000.00	70.00	12.55372 (84041806)	TRS	838.00	80.00	122.98342 (84041803)
TRS	1100.00	80.00	98.11331 (84041803)	TRS	1500.00	80.00	59.08445 (84041803)
TRS	2000.00	80.00	47.86300 (84040624)	TRS	2500.00	80.00	47.56581 (84040624)
TRS	3000.00	80.00	41.96141 (84040624)	TRS	3500.00	80.00	35.79129 (84040624)
TRS	4000.00	80.00	30.36432 (84040624)	TRS	4500.00	80.00	25.88088 (84040624)
TRS	5000.00	80.00	22.23936 (84040624)	TRS	686.00	90.00	142.97429 (84101503)
TRS	1100.00	90.00	107.12261 (84060221)	TRS	1500.00	90.00	69.89914 (84060221)
TRS	2000.00	90.00	39.78469c (84101424)	TRS	2500.00	90.00	33.20947c (84101424)
TRS	3000.00	90.00	30.42292 (84032124)	TRS	3500.00	90.00	27.26914 (84032124)
TRS	4000.00	90.00	24.17947 (84032124)	TRS	4500.00	90.00	21.47455 (84032124)
TRS	5000.00	90.00	19.18477 (84032124)	TRS	533.00	100.00	169.29588 (84092906)
TRS	700.00	100.00	141.32271 (84012512)	TRS	1100.00	100.00	78.77885 (84030718)
TRS	1500.00	100.00	74.56956 (84122221)	TRS	2000.00	100.00	57.81168 (84033024)
TRS	2500.00	100.00	61.43869 (84101503)	TRS	3000.00	100.00	58.62517 (84101503)
TRS	3500.00	100.00	51.20662 (84101503)	TRS	4000.00	100.00	43.37150 (84101503)
TRS	4500.00	100.00	36.45599 (84101503)	TRS	5000.00	100.00	30.70887 (84101503)
TRS	457.00	110.00	181.36995c (84082803)	TRS	700.00	110.00	152.14792 (84092906)
TRS	1100.00	110.00	124.74789 (84012512)	TRS	1500.00	110.00	87.96613 (84012512)
TRS	2000.00	110.00	55.03348 (84012512)	TRS	2500.00	110.00	42.45963 (84070906)
TRS	3000.00	110.00	41.20607c (84031724)	TRS	3500.00	110.00	37.87793c (84031724)
TRS	4000.00	110.00	33.93980c (84031724)	TRS	4500.00	110.00	30.09918c (84031724)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	26.62685c	(84031724)	TRS	457.00	120.00	179.19592	(84031318)
TRS	700.00	120.00	126.99837	(84090915)	TRS	1100.00	120.00	84.97874	(84011909)
TRS	1500.00	120.00	76.42245	(84082421)	TRS	2000.00	120.00	56.08868	(84091321)
TRS	2500.00	120.00	45.17672c	(84081521)	TRS	3000.00	120.00	38.51636c	(84081521)
TRS	3500.00	120.00	37.03442	(84081006)	TRS	4000.00	120.00	35.34978	(84081006)
TRS	4500.00	120.00	32.93176	(84081006)	TRS	5000.00	120.00	30.35245	(84081006)
TRS	457.00	130.00	154.07326	(84081706)	TRS	700.00	130.00	112.54358	(84081703)
TRS	1100.00	130.00	87.08292	(84091109)	TRS	1500.00	130.00	92.77646	(84020106)
TRS	2000.00	130.00	49.53051	(84020106)	TRS	2500.00	130.00	48.81795c	(84082803)
TRS	3000.00	130.00	49.82331c	(84082803)	TRS	3500.00	130.00	45.31958c	(84082803)
TRS	4000.00	130.00	39.36217c	(84082803)	TRS	4500.00	130.00	33.61473c	(84082803)
TRS	5000.00	130.00	28.60191c	(84082803)	TRS	457.00	140.00	172.35069	(84040109)
TRS	700.00	140.00	97.35431c	(84112903)	TRS	1100.00	140.00	85.17209	(84081706)
TRS	1500.00	140.00	72.68027	(84033006)	TRS	2000.00	140.00	51.88116	(84081703)
TRS	2500.00	140.00	42.99552	(84081703)	TRS	3000.00	140.00	31.83023	(84081703)
TRS	3500.00	140.00	23.30277	(84081703)	TRS	4000.00	140.00	20.35698	(84020103)
TRS	4500.00	140.00	18.40185	(84081003)	TRS	5000.00	140.00	16.92079	(84081003)
TRS	457.00	150.00	139.05019	(84062403)	TRS	700.00	150.00	105.35155	(84081709)
TRS	1100.00	150.00	97.00137	(84040109)	TRS	1500.00	150.00	69.38873	(84030921)
TRS	2000.00	150.00	52.62355	(84020703)	TRS	2500.00	150.00	40.87141	(84020703)
TRS	3000.00	150.00	40.36525c	(84112903)	TRS	3500.00	150.00	40.56354c	(84112903)
TRS	4000.00	150.00	38.53696c	(84112903)	TRS	4500.00	150.00	35.63935c	(84112903)
TRS	5000.00	150.00	32.54863c	(84112903)	TRS	488.00	160.00	132.71590	(84101106)
TRS	700.00	160.00	144.81908	(84010124)	TRS	1100.00	160.00	80.61933	(84062403)
TRS	1500.00	160.00	79.14901	(84100121)	TRS	2000.00	160.00	51.02501	(84100121)
TRS	2500.00	160.00	44.87951	(84100124)	TRS	3000.00	160.00	38.33904	(84100124)
TRS	3500.00	160.00	32.21634	(84100124)	TRS	4000.00	160.00	27.09808	(84100124)
TRS	4500.00	160.00	22.96450	(84100124)	TRS	5000.00	160.00	20.74418	(84031321)
TRS	533.00	170.00	132.45230	(84053006)	TRS	700.00	170.00	108.71173	(84053006)
TRS	1100.00	170.00	93.04195	(84101106)	TRS	1500.00	170.00	63.37236	(84101106)
TRS	2000.00	170.00	44.22280	(84121118)	TRS	2500.00	170.00	36.12401	(84121118)
TRS	3000.00	170.00	36.43226	(84010124)	TRS	3500.00	170.00	36.69951	(84010124)
TRS	4000.00	170.00	35.75600	(84010124)	TRS	4500.00	170.00	34.24144	(84010124)
TRS	5000.00	170.00	32.49800	(84010124)	TRS	610.00	180.00	109.76862c	(84053121)
TRS	700.00	180.00	88.06930	(84012009)	TRS	1100.00	180.00	80.07111	(84110512)
TRS	1500.00	180.00	64.57471	(84110512)	TRS	2000.00	180.00	47.13600	(84110512)
TRS	2500.00	180.00	37.45796c	(84111324)	TRS	3000.00	180.00	37.63545c	(84111324)
TRS	3500.00	180.00	36.08210c	(84111324)	TRS	4000.00	180.00	33.86946c	(84111324)
TRS	4500.00	180.00	31.49796c	(84111324)	TRS	5000.00	180.00	29.19050c	(84111324)
TRS	750.00	190.00	107.86416	(84110409)	TRS	1100.00	190.00	83.96169	(84090609)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMDDHH)
TRS	1500.00	190.00	60.39459	(84090609)	TRS	2000.00	190.00	41.82858	(84100809)
TRS	2500.00	190.00	34.91280	(84100809)	TRS	3000.00	190.00	32.82761	(84012203)
TRS	3500.00	190.00	30.73610	(84012203)	TRS	4000.00	190.00	28.53662	(84012203)
TRS	4500.00	190.00	26.42939	(84012203)	TRS	5000.00	190.00	24.48643	(84012203)
TRS	1829.00	200.00	47.75935	(84082103)	TRS	2000.00	200.00	43.25574	(84082103)
TRS	2500.00	200.00	33.19987	(84082103)	TRS	3000.00	200.00	28.85690	(84020803)
TRS	3500.00	200.00	25.94922	(84020803)	TRS	4000.00	200.00	23.45066	(84020803)
TRS	4500.00	200.00	21.30960	(84020803)	TRS	5000.00	200.00	19.46850	(84020803)
TRS	1829.00	210.00	54.61045	(84102521)	TRS	2000.00	210.00	52.41208	(84102521)
TRS	2500.00	210.00	46.67818	(84102521)	TRS	3000.00	210.00	41.88559	(84102521)
TRS	3500.00	210.00	37.86364	(84102521)	TRS	4000.00	210.00	34.45817	(84102521)
TRS	4500.00	210.00	31.54688	(84102521)	TRS	5000.00	210.00	29.03525	(84102521)
TRS	1981.00	220.00	31.93070	(84121509)	TRS	2000.00	220.00	31.66256	(84121509)
TRS	2500.00	220.00	25.66314	(84121509)	TRS	3000.00	220.00	21.27106	(84121509)
TRS	3500.00	220.00	17.95994	(84121509)	TRS	4000.00	220.00	15.40074	(84121509)
TRS	4500.00	220.00	13.37961	(84121509)	TRS	5000.00	220.00	11.75348	(84121509)
TRS	2134.00	230.00	33.00948	(84012303)	TRS	2500.00	230.00	27.91872	(84012303)
TRS	3000.00	230.00	23.26287	(84092424)	TRS	3500.00	230.00	20.93140	(84092424)
TRS	4000.00	230.00	19.02934	(84092424)	TRS	4500.00	230.00	17.41178	(84092424)
TRS	5000.00	230.00	16.02004	(84092424)	TRS	2438.00	240.00	22.46077	(84011403)
TRS	2500.00	240.00	21.85115	(84011403)	TRS	3000.00	240.00	17.75955	(84011403)
TRS	3500.00	240.00	15.09226	(84110306)	TRS	4000.00	240.00	14.04550	(84110306)
TRS	4500.00	240.00	13.06316	(84110306)	TRS	5000.00	240.00	12.16041	(84110306)
TRS	2896.00	250.00	23.35941	(84102421)	TRS	3000.00	250.00	22.75477	(84102421)
TRS	3500.00	250.00	20.16856	(84102421)	TRS	4000.00	250.00	18.03672	(84102421)
TRS	4500.00	250.00	16.23804	(84102421)	TRS	5000.00	250.00	14.72471	(84102421)
TRS	3048.00	260.00	30.65405	(84011724)	TRS	3500.00	260.00	26.93445	(84011724)
TRS	4000.00	260.00	23.47365	(84011724)	TRS	4500.00	260.00	20.61355	(84011724)
TRS	5000.00	260.00	18.24516	(84011724)	TRS	3658.00	270.00	39.17477c	(84061103)
TRS	4000.00	270.00	36.29370c	(84061103)	TRS	4500.00	270.00	32.34716c	(84061103)
TRS	5000.00	270.00	28.84520c	(84061103)	TRS	3962.00	280.00	38.63018	(84082924)
TRS	4000.00	280.00	38.25918	(84082924)	TRS	4500.00	280.00	33.58415	(84082924)
TRS	5000.00	280.00	29.44171	(84082924)	TRS	4572.00	290.00	28.89468	(84060824)
TRS	5000.00	290.00	25.70061	(84060824)	TRS	5182.00	300.00	19.59396	(84073109)
TRS	4801.00	310.00	25.11510	(84072903)	TRS	5000.00	310.00	24.05601	(84072903)
TRS	4875.00	320.00	21.56027	(84041703)	TRS	5000.00	320.00	21.13407	(84041703)
TRS	6000.00	330.00	18.24483c	(84050624)	TRS	5500.00	340.00	18.22125c	(84072909)
TRS	5250.00	350.00	18.51488	(84050806)	TRS	5125.00	360.00	26.73943	(84080724)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	48.34624	(84081805)	TRS	4500.00	20.00	43.49814	(84063021)
TRS	5000.00	20.00	40.12091	(84063021)	TRS	2500.00	30.00	87.60358	(84060419)
TRS	3000.00	30.00	69.97299	(84081906)	TRS	3500.00	30.00	59.47627	(84062903)
TRS	4000.00	30.00	51.90136	(84062903)	TRS	4500.00	30.00	45.82502	(84062903)
TRS	5000.00	30.00	40.86213	(84062903)	TRS	2500.00	40.00	60.24300	(84022222)
TRS	3000.00	40.00	50.09480	(84022222)	TRS	3500.00	40.00	42.36555	(84022222)
TRS	4000.00	40.00	36.36451	(84022222)	TRS	4500.00	40.00	31.61638	(84022222)
TRS	5000.00	40.00	29.00213	(84101519)	TRS	1500.00	50.00	89.05672	(84020405)
TRS	2000.00	50.00	67.41895	(84020405)	TRS	2500.00	50.00	53.73982	(84120918)
TRS	3000.00	50.00	49.20820	(84120918)	TRS	3500.00	50.00	44.71075	(84120918)
TRS	4000.00	50.00	40.75670	(84120918)	TRS	4500.00	50.00	37.31621	(84120918)
TRS	5000.00	50.00	34.31323	(84120918)	TRS	1500.00	60.00	110.05464	(84081718)
TRS	2000.00	60.00	82.85787	(84081718)	TRS	2500.00	60.00	65.64097	(84071818)
TRS	3000.00	60.00	54.51656	(84071818)	TRS	3500.00	60.00	47.27600	(84081807)
TRS	4000.00	60.00	43.20684	(84081807)	TRS	4500.00	60.00	39.57544	(84081807)
TRS	5000.00	60.00	36.36464	(84081807)	TRS	1500.00	70.00	125.04070	(84072914)
TRS	2000.00	70.00	91.73226	(84072914)	TRS	2500.00	70.00	69.16373	(84072914)
TRS	3000.00	70.00	54.13681	(84072914)	TRS	3500.00	70.00	43.79881	(84072914)
TRS	4000.00	70.00	37.41561	(84062121)	TRS	4500.00	70.00	33.63559	(84062121)
TRS	5000.00	70.00	30.34027	(84062121)	TRS	838.00	80.00	243.89932	(84080718)
TRS	1100.00	80.00	211.12495	(84080718)	TRS	1500.00	80.00	148.80560	(84041801)
TRS	2000.00	80.00	106.39895	(84121108)	TRS	2500.00	80.00	85.75362	(84121108)
TRS	3000.00	80.00	70.02246	(84121108)	TRS	3500.00	80.00	58.56011	(84121108)
TRS	4000.00	80.00	51.03158	(84040623)	TRS	4500.00	80.00	44.96922	(84040623)
TRS	5000.00	80.00	41.51201	(84061903)	TRS	686.00	90.00	256.46841	(84091118)
TRS	1100.00	90.00	188.51714	(84011821)	TRS	1500.00	90.00	151.04033	(84012720)
TRS	2000.00	90.00	90.63889	(84051502)	TRS	2500.00	90.00	73.56104	(84010507)
TRS	3000.00	90.00	71.82901	(84101422)	TRS	3500.00	90.00	68.66413	(84101422)
TRS	4000.00	90.00	62.95133	(84101422)	TRS	4500.00	90.00	56.73177	(84101422)
TRS	5000.00	90.00	50.82899	(84101422)	TRS	533.00	100.00	254.70728	(84092905)
TRS	700.00	100.00	251.26266	(84081019)	TRS	1100.00	100.00	176.84314	(84111623)
TRS	1500.00	100.00	137.13229	(84091319)	TRS	2000.00	100.00	127.57687	(84082222)
TRS	2500.00	100.00	105.39057	(84033024)	TRS	3000.00	100.00	97.12869	(84101503)
TRS	3500.00	100.00	85.20465	(84101503)	TRS	4000.00	100.00	72.41080	(84101503)
TRS	4500.00	100.00	61.02917	(84101503)	TRS	5000.00	100.00	58.43167	(84070902)
TRS	457.00	110.00	272.43423	(84082802)	TRS	700.00	110.00	246.90364	(84081519)
TRS	1100.00	110.00	190.74432	(84052417)	TRS	1500.00	110.00	146.28229	(84081019)
TRS	2000.00	110.00	127.51997	(84061422)	TRS	2500.00	110.00	111.25942	(84070904)
TRS	3000.00	110.00	93.20560	(84042502)	TRS	3500.00	110.00	84.37504	(84042502)
TRS	4000.00	110.00	73.11076	(84042502)	TRS	4500.00	110.00	62.38910	(84042502)

MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	55.67234	(84082421)	TRS	457.00	120.00	265.40805	(84081003)
TRS	700.00	120.00	254.43872	(84081819)	TRS	1100.00	120.00	182.15593	(84101717)
TRS	1500.00	120.00	153.30856	(84082420)	TRS	2000.00	120.00	105.89408	(84091320)
TRS	2500.00	120.00	107.81224	(84082804)	TRS	3000.00	120.00	90.10912	(84082804)
TRS	3500.00	120.00	70.22430	(84082804)	TRS	4000.00	120.00	63.12679	(84083119)
TRS	4500.00	120.00	57.07211	(84083119)	TRS	5000.00	120.00	51.43274	(84083119)
TRS	457.00	130.00	261.15518	(84101317)	TRS	700.00	130.00	247.66727	(84062213)
TRS	1100.00	130.00	173.11613	(84062224)	TRS	1500.00	130.00	134.23933	(84020105)
TRS	2000.00	130.00	116.94859	(84120822)	TRS	2500.00	130.00	94.62702	(84060120)
TRS	3000.00	130.00	76.17393	(84060120)	TRS	3500.00	130.00	68.02077	(84082802)
TRS	4000.00	130.00	59.07635	(84082802)	TRS	4500.00	130.00	54.09472	(84042504)
TRS	5000.00	130.00	50.04631	(84042504)	TRS	457.00	140.00	254.10970	(84012516)
TRS	700.00	140.00	234.59241	(84073014)	TRS	1100.00	140.00	172.08716	(84071913)
TRS	1500.00	140.00	126.04961	(84070907)	TRS	2000.00	140.00	100.78892	(84031306)
TRS	2500.00	140.00	87.02851	(84060405)	TRS	3000.00	140.00	75.73274	(84062324)
TRS	3500.00	140.00	67.79261	(84062324)	TRS	4000.00	140.00	59.03508	(84081003)
TRS	4500.00	140.00	55.20554	(84081003)	TRS	5000.00	140.00	50.76236	(84081003)
TRS	457.00	150.00	262.43747	(84031718)	TRS	700.00	150.00	219.47331	(84042817)
TRS	1100.00	150.00	175.70822	(84070117)	TRS	1500.00	150.00	137.91777	(84051106)
TRS	2000.00	150.00	117.42471	(84081523)	TRS	2500.00	150.00	105.57922	(84081523)
TRS	3000.00	150.00	82.77618	(84081523)	TRS	3500.00	150.00	79.19544	(84070903)
TRS	4000.00	150.00	75.52454	(84070903)	TRS	4500.00	150.00	70.05074	(84070903)
TRS	5000.00	150.00	64.12393	(84070903)	TRS	488.00	160.00	252.14886	(84081708)
TRS	700.00	160.00	222.09526	(84082019)	TRS	1100.00	160.00	174.14307	(84031718)
TRS	1500.00	160.00	154.50023	(84041011)	TRS	2000.00	160.00	135.66136	(84041011)
TRS	2500.00	160.00	111.92713	(84041011)	TRS	3000.00	160.00	92.21552	(84041011)
TRS	3500.00	160.00	77.06639	(84041011)	TRS	4000.00	160.00	65.49780	(84041011)
TRS	4500.00	160.00	56.54688	(84041011)	TRS	5000.00	160.00	49.49804	(84070802)
TRS	533.00	170.00	223.22644	(84081018)	TRS	700.00	170.00	239.39981	(84081018)
TRS	1100.00	170.00	165.82965	(84121117)	TRS	1500.00	170.00	139.81050	(84021719)
TRS	2000.00	170.00	111.31253	(84021719)	TRS	2500.00	170.00	85.87168	(84061406)
TRS	3000.00	170.00	77.66970	(84061406)	TRS	3500.00	170.00	68.84095	(84061406)
TRS	4000.00	170.00	60.80108	(84061406)	TRS	4500.00	170.00	53.84029	(84061406)
TRS	5000.00	170.00	47.90906	(84061406)	TRS	610.00	180.00	267.27444	(84012008)
TRS	700.00	180.00	243.58804	(84012008)	TRS	1100.00	180.00	172.62593	(84042818)
TRS	1500.00	180.00	130.77620	(84030319)	TRS	2000.00	180.00	107.08022	(84030319)
TRS	2500.00	180.00	102.38663	(84082104)	TRS	3000.00	180.00	92.76002	(84082104)
TRS	3500.00	180.00	82.14256	(84082104)	TRS	4000.00	180.00	72.35629	(84082104)
TRS	4500.00	180.00	67.34734	(84082024)	TRS	5000.00	180.00	62.66277	(84082024)
TRS	750.00	190.00	249.04419	(84050906)	TRS	1100.00	190.00	169.48763	(84050906)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	151.02010	(84100807)	TRS	2000.00	190.00	125.48499	(84100807)
TRS	2500.00	190.00	104.73788	(84100807)	TRS	3000.00	190.00	88.63831	(84100807)
TRS	3500.00	190.00	76.21452	(84100807)	TRS	4000.00	190.00	66.52392	(84100807)
TRS	4500.00	190.00	58.83654	(84100807)	TRS	5000.00	190.00	52.63521	(84100807)
TRS	1829.00	200.00	110.36402	(84020802)	TRS	2000.00	200.00	107.04328	(84020802)
TRS	2500.00	200.00	96.52027	(84020802)	TRS	3000.00	200.00	86.57071	(84020802)
TRS	3500.00	200.00	77.84766	(84020802)	TRS	4000.00	200.00	70.35197	(84020802)
TRS	4500.00	200.00	63.92879	(84020802)	TRS	5000.00	200.00	58.40551	(84020802)
TRS	1829.00	210.00	101.31376	(84082310)	TRS	2000.00	210.00	92.17496	(84082310)
TRS	2500.00	210.00	80.46072	(84102505)	TRS	3000.00	210.00	71.45925	(84102505)
TRS	3500.00	210.00	64.11625	(84102505)	TRS	4000.00	210.00	58.02443	(84102505)
TRS	4500.00	210.00	52.89597	(84102505)	TRS	5000.00	210.00	48.52389	(84102505)
TRS	1981.00	220.00	60.09977	(84121508)	TRS	2000.00	220.00	59.61934	(84121508)
TRS	2500.00	220.00	51.27773	(84011608)	TRS	3000.00	220.00	45.28666	(84011608)
TRS	3500.00	220.00	39.86530	(84011608)	TRS	4000.00	220.00	35.22462	(84011608)
TRS	4500.00	220.00	31.29713	(84011608)	TRS	5000.00	220.00	27.97626	(84011608)
TRS	2134.00	230.00	58.20345	(84011503)	TRS	2500.00	230.00	50.87510	(84082119)
TRS	3000.00	230.00	43.04067	(84082119)	TRS	3500.00	230.00	38.17810	(84092919)
TRS	4000.00	230.00	34.28339	(84092919)	TRS	4500.00	230.00	31.00548	(84092919)
TRS	5000.00	230.00	28.21593	(84092919)	TRS	2438.00	240.00	58.17993	(84101509)
TRS	2500.00	240.00	56.73600	(84101509)	TRS	3000.00	240.00	47.61424	(84122317)
TRS	3500.00	240.00	41.73103	(84042023)	TRS	4000.00	240.00	39.21262	(84042023)
TRS	4500.00	240.00	36.78588	(84042023)	TRS	5000.00	240.00	34.49257	(84042023)
TRS	2896.00	250.00	55.98299	(84011702)	TRS	3000.00	250.00	54.24648	(84011702)
TRS	3500.00	250.00	46.81616	(84011702)	TRS	4000.00	250.00	40.73823	(84011702)
TRS	4500.00	250.00	35.75757	(84011702)	TRS	5000.00	250.00	31.64692	(84011702)
TRS	3048.00	260.00	82.37934	(84072604)	TRS	3500.00	260.00	68.21816	(84072604)
TRS	4000.00	260.00	59.90318	(84072917)	TRS	4500.00	260.00	54.32999	(84072917)
TRS	5000.00	260.00	49.68422	(84072917)	TRS	3658.00	270.00	64.53754	(84061103)
TRS	4000.00	270.00	60.29688	(84061103)	TRS	4500.00	270.00	54.14540	(84061103)
TRS	5000.00	270.00	48.47752	(84061103)	TRS	3962.00	280.00	69.77495	(84073105)
TRS	4000.00	280.00	68.87211	(84073105)	TRS	4500.00	280.00	58.00871	(84073105)
TRS	5000.00	280.00	49.79937	(84082924)	TRS	4572.00	290.00	68.93259	(84060602)
TRS	5000.00	290.00	64.13499	(84060602)	TRS	5182.00	300.00	49.33305	(84102219)
TRS	4801.00	310.00	66.77200	(84060705)	TRS	5000.00	310.00	64.73159	(84060705)
TRS	4875.00	320.00	64.68082	(84041703)	TRS	5000.00	320.00	63.40221	(84041703)
TRS	6000.00	330.00	54.73449	(84050622)	TRS	5500.00	340.00	54.66375	(84072909)
TRS	5250.00	350.00	55.44554	(84050306)	TRS	5125.00	360.00	59.53683	(84080723)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS 6.73836 AT (	524.90, -92.55,	0.00, 0.00)	DP NA
	2ND HIGHEST VALUE IS 6.66737 AT (	429.44, -156.30,	0.00, 0.00)	DP NA
	3RD HIGHEST VALUE IS 5.46960 AT (	293.75, -350.08,	0.00, 0.00)	DP NA
	4TH HIGHEST VALUE IS 5.22930 AT (	395.77, -228.50,	0.00, 0.00)	DP NA
	5TH HIGHEST VALUE IS 5.18835 AT (	657.78, -239.41,	0.00, 0.00)	DP NA
	6TH HIGHEST VALUE IS 5.18402 AT (	228.50, -395.77,	0.00, 0.00)	DP NA
	7TH HIGHEST VALUE IS 4.80409 AT (	689.37, -121.55,	0.00, 0.00)	DP NA
	8TH HIGHEST VALUE IS 4.73927 AT (	350.08, -293.75,	0.00, 0.00)	DP NA
	9TH HIGHEST VALUE IS 4.73847 AT (	166.91, -458.57,	0.00, 0.00)	DP NA
	10TH HIGHEST VALUE IS 4.73184 AT (	686.00, 0.00,	0.00, 0.00)	DP NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 79.82062c	ON 84111224: AT (	429.44, -156.30, 0.00, 0.00)	DP	NA

- ** RECEPTOR TYPES: GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	118.83541c ON 84090108: AT (524.90, -92.55, 0.00, 0.00)	DP	NA
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- RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

COUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	181.36995c ON 84082803: AT (429.44, -156.30, 0.00, 0.00)	DP	NA
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*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS 272.43423	ON 84082802: AT (429.44, -156.30, 0.00, 0.00)	DP	NA
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** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

*MODELOPTs: CONC RURAL FLAT DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
Total of 1 Warning Message(s)
A Total of 1992 Informational Message(s)

Total of 1992 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
SO W320 27 PPARM :Input Parameter May Be Out-of-Range for Parameter QS

*** ISCST3 Finishes Successfully ***

CO STARTING

CO TITLEONE 1985 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98

CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE

CO MODELOPT DFAULT CONC RURAL NOCMPL

CO AVERTIME PERIOD 24 8 3 1

CO POLLUTID CO

CO DCAYCOEF .000000

CO RUNORNOT RUN

CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS

** TRS INCINERATOR STACK IS ORIGIN ONLY

BLEACH PLANT BYPASS STACK

CO LOCATION BLCHSCRB POINT 109.3 141.5 .0

SO LOCATION TRS POINT 0.0 0.0 .0

Source Parameter Cards:

** POINT: SRCID QS HS TS VS DS

** VOLUME: SRCID QS HS SYINIT SZINIT

** AREA: SRCID QS HS XINIT

SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22

SO SRCPARAM TRS 0.00 76.2 533.2 32.03 0.94

CO BUILDHGT BLCHSCRB 25.76 25.76 25.76 18.95 21.64 21.64

CO BUILDHGT BLCHSCRB 21.64 25.76 25.76 25.76 25.76 25.76

SO BUILDHGT BLCHSCRB 25.76 25.76 25.76 25.76 25.76 25.76

SO BUILDHGT BLCHSCRB 25.76 25.76 25.76 18.95 21.64 21.49

CO BUILDHGT BLCHSCRB 22.25 25.76 25.76 25.76 25.76 25.76

SO BUILDHGT BLCHSCRB 25.76 25.76 25.76 25.76 25.76 25.76

SO BUILDWID BLCHSCRB 102.55 103.66 101.63 29.38 36.02 35.44

CO BUILDWID BLCHSCRB 37.92 100.84 103.51 103.03 99.42 92.78

CO BUILDWID BLCHSCRB 83.33 71.35 68.68 81.13 91.11 98.33

SO BUILDWID BLCHSCRB 102.55 103.66 101.63 29.38 178.89 97.90

CO BUILDWID BLCHSCRB 90.32 100.84 103.51 103.03 99.42 92.78

CO BUILDWID BLCHSCRB 83.33 71.35 68.68 81.13 91.11 98.33

EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

CO SRCGROUP ALL

SO FINISHED

STARTING

** RECEPTOR ORIGIN IS TRS INCINERATOR STACK

RE DISCPOLR TRS 5000.00 10.00

RE DISCPOLR TRS 4500.00 20.00

RE DISCPOLR TRS 5000.00 20.00

RE DISCPOLR TRS 2500.00 30.00

RE DISCPOLR TRS 3000.00 30.00

RE DISCPOLR TRS 3500.00 30.00

RE DISCPOLR TRS 4000.00 30.00

RE DISCPOLR TRS 4500.00 30.00

RE DISCPOLR TRS 5000.00 30.00

RE DISCPOLR TRS 2500.00 40.00

RE DISCPOLR TRS	3000.00	40.00
RE DISCPOLR TRS	3500.00	40.00
RE DISCPOLR TRS	4000.00	40.00
RE DISCPOLR TRS	4500.00	40.00
RE DISCPOLR TRS	5000.00	40.00
RE DISCPOLR TRS	1500.00	50.00
RE DISCPOLR TRS	2000.00	50.00
RE DISCPOLR TRS	2500.00	50.00
RE DISCPOLR TRS	3000.00	50.00
RE DISCPOLR TRS	3500.00	50.00
RE DISCPOLR TRS	4000.00	50.00
RE DISCPOLR TRS	4500.00	50.00
RE DISCPOLR TRS	5000.00	50.00
RE DISCPOLR TRS	1500.00	60.00
RE DISCPOLR TRS	2000.00	60.00
RE DISCPOLR TRS	2500.00	60.00
RE DISCPOLR TRS	3000.00	60.00
RE DISCPOLR TRS	3500.00	60.00
RE DISCPOLR TRS	4000.00	60.00
RE DISCPOLR TRS	4500.00	60.00
RE DISCPOLR TRS	5000.00	60.00
RE DISCPOLR TRS	1500.00	70.00
RE DISCPOLR TRS	2000.00	70.00
RE DISCPOLR TRS	2500.00	70.00
RE DISCPOLR TRS	3000.00	70.00
RE DISCPOLR TRS	3500.00	70.00
RE DISCPOLR TRS	4000.00	70.00
RE DISCPOLR TRS	4500.00	70.00
RE DISCPOLR TRS	5000.00	70.00
RE DISCPOLR TRS	838.00	80.00
RE DISCPOLR TRS	1100.00	80.00
RE DISCPOLR TRS	1500.00	80.00
RE DISCPOLR TRS	2000.00	80.00
RE DISCPOLR TRS	2500.00	80.00
RE DISCPOLR TRS	3000.00	80.00
RE DISCPOLR TRS	3500.00	80.00
RE DISCPOLR TRS	4000.00	80.00
RE DISCPOLR TRS	4500.00	80.00
RE DISCPOLR TRS	5000.00	80.00
RE DISCPOLR TRS	686.00	90.00
RE DISCPOLR TRS	1100.00	90.00
RE DISCPOLR TRS	1500.00	90.00
RE DISCPOLR TRS	2000.00	90.00
RE DISCPOLR TRS	2500.00	90.00
RE DISCPOLR TRS	3000.00	90.00
RE DISCPOLR TRS	3500.00	90.00
RE DISCPOLR TRS	4000.00	90.00
RE DISCPOLR TRS	4500.00	90.00
RE DISCPOLR TRS	5000.00	90.00
RE DISCPOLR TRS	533.00	100.00
RE DISCPOLR TRS	700.00	100.00
RE DISCPOLR TRS	1100.00	100.00
RE DISCPOLR TRS	1500.00	100.00
RE DISCPOLR TRS	2000.00	100.00
RE DISCPOLR TRS	2500.00	100.00
RE DISCPOLR TRS	3000.00	100.00
RE DISCPOLR TRS	3500.00	100.00
RE DISCPOLR TRS	4000.00	100.00
RE DISCPOLR TRS	4500.00	100.00
RE DISCPOLR TRS	5000.00	100.00

RE DISCPOLR TRS	457.00	110.00
RE DISCPOLR TRS	700.00	110.00
RE DISCPOLR TRS	1100.00	110.00
RE DISCPOLR TRS	1500.00	110.00
RE DISCPOLR TRS	2000.00	110.00
RE DISCPOLR TRS	2500.00	110.00
RE DISCPOLR TRS	3000.00	110.00
RE DISCPOLR TRS	3500.00	110.00
RE DISCPOLR TRS	4000.00	110.00
RE DISCPOLR TRS	4500.00	110.00
RE DISCPOLR TRS	5000.00	110.00
RE DISCPOLR TRS	457.00	120.00
RE DISCPOLR TRS	700.00	120.00
RE DISCPOLR TRS	1100.00	120.00
RE DISCPOLR TRS	1500.00	120.00
RE DISCPOLR TRS	2000.00	120.00
RE DISCPOLR TRS	2500.00	120.00
RE DISCPOLR TRS	3000.00	120.00
RE DISCPOLR TRS	3500.00	120.00
RE DISCPOLR TRS	4000.00	120.00
RE DISCPOLR TRS	4500.00	120.00
RE DISCPOLR TRS	5000.00	120.00
RE DISCPOLR TRS	457.00	130.00
RE DISCPOLR TRS	700.00	130.00
RE DISCPOLR TRS	1100.00	130.00
RE DISCPOLR TRS	1500.00	130.00
RE DISCPOLR TRS	2000.00	130.00
RE DISCPOLR TRS	2500.00	130.00
RE DISCPOLR TRS	3000.00	130.00
RE DISCPOLR TRS	3500.00	130.00
RE DISCPOLR TRS	4000.00	130.00
RE DISCPOLR TRS	4500.00	130.00
RE DISCPOLR TRS	5000.00	130.00
RE DISCPOLR TRS	457.00	140.00
RE DISCPOLR TRS	700.00	140.00
RE DISCPOLR TRS	1100.00	140.00
RE DISCPOLR TRS	1500.00	140.00
RE DISCPOLR TRS	2000.00	140.00
RE DISCPOLR TRS	2500.00	140.00
RE DISCPOLR TRS	3000.00	140.00
RE DISCPOLR TRS	3500.00	140.00
RE DISCPOLR TRS	4000.00	140.00
RE DISCPOLR TRS	4500.00	140.00
RE DISCPOLR TRS	5000.00	140.00
RE DISCPOLR TRS	457.00	150.00
RE DISCPOLR TRS	700.00	150.00
RE DISCPOLR TRS	1100.00	150.00
RE DISCPOLR TRS	1500.00	150.00
RE DISCPOLR TRS	2000.00	150.00
RE DISCPOLR TRS	2500.00	150.00
RE DISCPOLR TRS	3000.00	150.00
RE DISCPOLR TRS	3500.00	150.00
RE DISCPOLR TRS	4000.00	150.00
RE DISCPOLR TRS	4500.00	150.00
RE DISCPOLR TRS	5000.00	150.00
RE DISCPOLR TRS	488.00	160.00
RE DISCPOLR TRS	700.00	160.00
RE DISCPOLR TRS	1100.00	160.00
RE DISCPOLR TRS	1500.00	160.00
RE DISCPOLR TRS	2000.00	160.00

DISCPOLR TRS	2500.00	160.00
DISCPOLR TRS	3000.00	160.00
RE DISCPOLR TRS	3500.00	160.00
DISCPOLR TRS	4000.00	160.00
DISCPOLR TRS	4500.00	160.00
RE DISCPOLR TRS	5000.00	160.00
RE DISCPOLR TRS	533.00	170.00
DISCPOLR TRS	700.00	170.00
RE DISCPOLR TRS	1100.00	170.00
RE DISCPOLR TRS	1500.00	170.00
DISCPOLR TRS	2000.00	170.00
DISCPOLR TRS	2500.00	170.00
RE DISCPOLR TRS	3000.00	170.00
DISCPOLR TRS	3500.00	170.00
DISCPOLR TRS	4000.00	170.00
RE DISCPOLR TRS	4500.00	170.00
RE DISCPOLR TRS	5000.00	170.00
DISCPOLR TRS	610.00	180.00
DISCPOLR TRS	700.00	180.00
RE DISCPOLR TRS	1100.00	180.00
DISCPOLR TRS	1500.00	180.00
DISCPOLR TRS	2000.00	180.00
RE DISCPOLR TRS	2500.00	180.00
RE DISCPOLR TRS	3000.00	180.00
DISCPOLR TRS	3500.00	180.00
RE DISCPOLR TRS	4000.00	180.00
RE DISCPOLR TRS	4500.00	180.00
DISCPOLR TRS	5000.00	180.00
DISCPOLR TRS	750.00	190.00
RE DISCPOLR TRS	1100.00	190.00
DISCPOLR TRS	1500.00	190.00
DISCPOLR TRS	2000.00	190.00
RE DISCPOLR TRS	2500.00	190.00
RE DISCPOLR TRS	3000.00	190.00
DISCPOLR TRS	3500.00	190.00
RE DISCPOLR TRS	4000.00	190.00
RE DISCPOLR TRS	4500.00	190.00
DISCPOLR TRS	5000.00	190.00
DISCPOLR TRS	1829.00	200.00
RE DISCPOLR TRS	2000.00	200.00
DISCPOLR TRS	2500.00	200.00
DISCPOLR TRS	3000.00	200.00
RE DISCPOLR TRS	3500.00	200.00
RE DISCPOLR TRS	4000.00	200.00
DISCPOLR TRS	4500.00	200.00
DISCPOLR TRS	5000.00	200.00
RE DISCPOLR TRS	1829.00	210.00
DISCPOLR TRS	2000.00	210.00
DISCPOLR TRS	2500.00	210.00
RE DISCPOLR TRS	3000.00	210.00
RE DISCPOLR TRS	3500.00	210.00
DISCPOLR TRS	4000.00	210.00
RE DISCPOLR TRS	4500.00	210.00
RE DISCPOLR TRS	5000.00	210.00
DISCPOLR TRS	1981.00	220.00
DISCPOLR TRS	2000.00	220.00
RE DISCPOLR TRS	2500.00	220.00
DISCPOLR TRS	3000.00	220.00
DISCPOLR TRS	3500.00	220.00
RE DISCPOLR TRS	4000.00	220.00

DISCPOLR TRS	4500.00	220.00
DISCPOLR TRS	5000.00	220.00
RE DISCPOLR TRS	2134.00	230.00
DISCPOLR TRS	2500.00	230.00
DISCPOLR TRS	3000.00	230.00
RE DISCPOLR TRS	3500.00	230.00
RE DISCPOLR TRS	4000.00	230.00
DISCPOLR TRS	4500.00	230.00
DISCPOLR TRS	5000.00	230.00
RE DISCPOLR TRS	2438.00	240.00
DISCPOLR TRS	2500.00	240.00
DISCPOLR TRS	3000.00	240.00
RE DISCPOLR TRS	3500.00	240.00
RE DISCPOLR TRS	4000.00	240.00
DISCPOLR TRS	4500.00	240.00
RE DISCPOLR TRS	5000.00	240.00
RE DISCPOLR TRS	2896.00	250.00
DISCPOLR TRS	3000.00	250.00
DISCPOLR TRS	3500.00	250.00
RE DISCPOLR TRS	4000.00	250.00
DISCPOLR TRS	4500.00	250.00
DISCPOLR TRS	5000.00	250.00
RE DISCPOLR TRS	3048.00	260.00
RE DISCPOLR TRS	3500.00	260.00
DISCPOLR TRS	4000.00	260.00
DISCPOLR TRS	4500.00	260.00
RE DISCPOLR TRS	5000.00	260.00
DISCPOLR TRS	3658.00	270.00
DISCPOLR TRS	4000.00	270.00
RE DISCPOLR TRS	4500.00	270.00
DISCPOLR TRS	5000.00	270.00
DISCPOLR TRS	3962.00	280.00
RE DISCPOLR TRS	4000.00	280.00
RE DISCPOLR TRS	4500.00	280.00
DISCPOLR TRS	5000.00	280.00
DISCPOLR TRS	4572.00	290.00
RE DISCPOLR TRS	5000.00	290.00
DISCPOLR TRS	5182.00	300.00
DISCPOLR TRS	4801.00	310.00
RE DISCPOLR TRS	5000.00	310.00
DISCPOLR TRS	4875.00	320.00
DISCPOLR TRS	5000.00	320.00
RE DISCPOLR TRS	6000.00	330.00
RE DISCPOLR TRS	5500.00	340.00
DISCPOLR TRS	5250.00	350.00
DISCPOLR TRS	5125.00	360.00

RE FINISHED

ME STARTING

ME INPUTFIL S:\MET\GNSPRL85.BIN

UNFORM

ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1985 JACKSONVILLE

ME UAIRDATA 13861 1985 WAYCROSS

WINDCATS 1.50 3.10 5.10 8.20 10.80

FINISHED

STARTING

OU RECTABLE ALLAVE FIRST

FINISHED

*** Message Summary For ISC3 Model Setup ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

W320 27 PPARAM :Input Parameter May Be Out-of-Range for Parameter QS

* SETUP Finishes Successfully ***

MODELOPTs: CONC RURAL FLAT DFAULT NOCMPL

*** MODEL SETUP OPTIONS SUMMARY ***

Simple Terrain Model is Selected

Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

Model Uses NO DRY DEPLETION. DDPLETE = F

Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

Model Uses RURAL Dispersion.

Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

Model Calculates 4 Short Term Average(s) of: 24-HR 8-HR 3-HR 1-HR
and Calculates PERIOD Averages

This Run Includes: 2 Source(s); 1 Source Group(s); and 236 Receptor(s)

The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNNING After the Setup Testing.

Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

Misc. Inputs: Anem. Hgt. (m) = 6.71 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.10000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

Input Runstream File: COCL2.I85

**Output Print File: COCL2.O85

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE	STACK	STACK	STACK	STACK	BUILDING EMISSION RATE	
					ELEV. (METERS)	HEIGHT (METERS)	TEMP. (DEG.K)	EXIT VEL. (M/SEC)	DIAMETER (METERS)	EXISTS	SCALAR VARY BY
BLCHSCRB	0	0.80000E+01	109.3	141.5	0.0	36.00	338.70	9.30	1.22	YES	
TRS	0	0.00000E+00	0.0	0.0	0.0	76.20	533.20	32.03	0.94	NO	

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
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ALL	BLCHSCR, TRS ,
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MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK				
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	5000.0,	10.0,	0.0,	0.0);	TRS	:	(	4500.0,	20.0,	0.0,	0.0);
TRS	:	(	5000.0,	20.0,	0.0,	0.0);	TRS	:	(	2500.0,	30.0,	0.0,	0.0);
TRS	:	(	3000.0,	30.0,	0.0,	0.0);	TRS	:	(	3500.0,	30.0,	0.0,	0.0);
TRS	:	(	4000.0,	30.0,	0.0,	0.0);	TRS	:	(	4500.0,	30.0,	0.0,	0.0);
TRS	:	(	5000.0,	30.0,	0.0,	0.0);	TRS	:	(	2500.0,	40.0,	0.0,	0.0);
TRS	:	(	3000.0,	40.0,	0.0,	0.0);	TRS	:	(	3500.0,	40.0,	0.0,	0.0);
TRS	:	(	4000.0,	40.0,	0.0,	0.0);	TRS	:	(	4500.0,	40.0,	0.0,	0.0);
TRS	:	(	5000.0,	40.0,	0.0,	0.0);	TRS	:	(	1500.0,	50.0,	0.0,	0.0);
TRS	:	(	2000.0,	50.0,	0.0,	0.0);	TRS	:	(	2500.0,	50.0,	0.0,	0.0);
TRS	:	(	3000.0,	50.0,	0.0,	0.0);	TRS	:	(	3500.0,	50.0,	0.0,	0.0);
TRS	:	(	4000.0,	50.0,	0.0,	0.0);	TRS	:	(	4500.0,	50.0,	0.0,	0.0);
TRS	:	(	5000.0,	50.0,	0.0,	0.0);	TRS	:	(	1500.0,	60.0,	0.0,	0.0);
TRS	:	(	2000.0,	60.0,	0.0,	0.0);	TRS	:	(	2500.0,	60.0,	0.0,	0.0);
TRS	:	(	3000.0,	60.0,	0.0,	0.0);	TRS	:	(	3500.0,	60.0,	0.0,	0.0);
TRS	:	(	4000.0,	60.0,	0.0,	0.0);	TRS	:	(	4500.0,	60.0,	0.0,	0.0);
TRS	:	(	5000.0,	60.0,	0.0,	0.0);	TRS	:	(	1500.0,	70.0,	0.0,	0.0);
TRS	:	(	2000.0,	70.0,	0.0,	0.0);	TRS	:	(	2500.0,	70.0,	0.0,	0.0);
TRS	:	(	3000.0,	70.0,	0.0,	0.0);	TRS	:	(	3500.0,	70.0,	0.0,	0.0);
TRS	:	(	4000.0,	70.0,	0.0,	0.0);	TRS	:	(	4500.0,	70.0,	0.0,	0.0);
TRS	:	(	5000.0,	70.0,	0.0,	0.0);	TRS	:	(	838.0,	80.0,	0.0,	0.0);
TRS	:	(	1100.0,	80.0,	0.0,	0.0);	TRS	:	(	1500.0,	80.0,	0.0,	0.0);
TRS	:	(	2000.0,	80.0,	0.0,	0.0);	TRS	:	(	2500.0,	80.0,	0.0,	0.0);
TRS	:	(	3000.0,	80.0,	0.0,	0.0);	TRS	:	(	3500.0,	80.0,	0.0,	0.0);
TRS	:	(	4000.0,	80.0,	0.0,	0.0);	TRS	:	(	4500.0,	80.0,	0.0,	0.0);
TRS	:	(	5000.0,	80.0,	0.0,	0.0);	TRS	:	(	686.0,	90.0,	0.0,	0.0);
TRS	:	(	1100.0,	90.0,	0.0,	0.0);	TRS	:	(	1500.0,	90.0,	0.0,	0.0);
TRS	:	(	2000.0,	90.0,	0.0,	0.0);	TRS	:	(	2500.0,	90.0,	0.0,	0.0);
TRS	:	(	3000.0,	90.0,	0.0,	0.0);	TRS	:	(	3500.0,	90.0,	0.0,	0.0);
TRS	:	(	4000.0,	90.0,	0.0,	0.0);	TRS	:	(	4500.0,	90.0,	0.0,	0.0);
TRS	:	(	5000.0,	90.0,	0.0,	0.0);	TRS	:	(	533.0,	100.0,	0.0,	0.0);
TRS	:	(	700.0,	100.0,	0.0,	0.0);	TRS	:	(	1100.0,	100.0,	0.0,	0.0);
TRS	:	(	1500.0,	100.0,	0.0,	0.0);	TRS	:	(	2000.0,	100.0,	0.0,	0.0);
TRS	:	(	2500.0,	100.0,	0.0,	0.0);	TRS	:	(	3000.0,	100.0,	0.0,	0.0);
TRS	:	(	3500.0,	100.0,	0.0,	0.0);	TRS	:	(	4000.0,	100.0,	0.0,	0.0);
TRS	:	(	4500.0,	100.0,	0.0,	0.0);	TRS	:	(	5000.0,	100.0,	0.0,	0.0);
TRS	:	(	457.0,	110.0,	0.0,	0.0);	TRS	:	(	700.0,	110.0,	0.0,	0.0);
TRS	:	(	1100.0,	110.0,	0.0,	0.0);	TRS	:	(	1500.0,	110.0,	0.0,	0.0);
TRS	:	(	2000.0,	110.0,	0.0,	0.0);	TRS	:	(	2500.0,	110.0,	0.0,	0.0);
TRS	:	(	3000.0,	110.0,	0.0,	0.0);	TRS	:	(	3500.0,	110.0,	0.0,	0.0);
TRS	:	(	4000.0,	110.0,	0.0,	0.0);	TRS	:	(	4500.0,	110.0,	0.0,	0.0);
TRS	:	(	5000.0,	110.0,	0.0,	0.0);	TRS	:	(	457.0,	120.0,	0.0,	0.0);
TRS	:	(	700.0,	120.0,	0.0,	0.0);	TRS	:	(	1100.0,	120.0,	0.0,	0.0);
TRS	:	(	1500.0,	120.0,	0.0,	0.0);	TRS	:	(	2000.0,	120.0,	0.0,	0.0);
TRS	:	(	2500.0,	120.0,	0.0,	0.0);	TRS	:	(	3000.0,	120.0,	0.0,	0.0);
TRS	:	(	3500.0,	120.0,	0.0,	0.0);	TRS	:	(	4000.0,	120.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	4500.0,	120.0,	0.0,	0.0);	TRS	:	(	5000.0,	120.0,	0.0,	0.0);
TRS	:	(	457.0,	130.0,	0.0,	0.0);	TRS	:	(	700.0,	130.0,	0.0,	0.0);
TRS	:	(	1100.0,	130.0,	0.0,	0.0);	TRS	:	(	1500.0,	130.0,	0.0,	0.0);
TRS	:	(	2000.0,	130.0,	0.0,	0.0);	TRS	:	(	2500.0,	130.0,	0.0,	0.0);
TRS	:	(	3000.0,	130.0,	0.0,	0.0);	TRS	:	(	3500.0,	130.0,	0.0,	0.0);
TRS	:	(	4000.0,	130.0,	0.0,	0.0);	TRS	:	(	4500.0,	130.0,	0.0,	0.0);
TRS	:	(	5000.0,	130.0,	0.0,	0.0);	TRS	:	(	457.0,	140.0,	0.0,	0.0);
TRS	:	(	700.0,	140.0,	0.0,	0.0);	TRS	:	(	1100.0,	140.0,	0.0,	0.0);
TRS	:	(	1500.0,	140.0,	0.0,	0.0);	TRS	:	(	2000.0,	140.0,	0.0,	0.0);
TRS	:	(	2500.0,	140.0,	0.0,	0.0);	TRS	:	(	3000.0,	140.0,	0.0,	0.0);
TRS	:	(	3500.0,	140.0,	0.0,	0.0);	TRS	:	(	4000.0,	140.0,	0.0,	0.0);
TRS	:	(	4500.0,	140.0,	0.0,	0.0);	TRS	:	(	5000.0,	140.0,	0.0,	0.0);
TRS	:	(	457.0,	150.0,	0.0,	0.0);	TRS	:	(	700.0,	150.0,	0.0,	0.0);
TRS	:	(	1100.0,	150.0,	0.0,	0.0);	TRS	:	(	1500.0,	150.0,	0.0,	0.0);
TRS	:	(	2000.0,	150.0,	0.0,	0.0);	TRS	:	(	2500.0,	150.0,	0.0,	0.0);
TRS	:	(	3000.0,	150.0,	0.0,	0.0);	TRS	:	(	3500.0,	150.0,	0.0,	0.0);
TRS	:	(	4000.0,	150.0,	0.0,	0.0);	TRS	:	(	4500.0,	150.0,	0.0,	0.0);
TRS	:	(	5000.0,	150.0,	0.0,	0.0);	TRS	:	(	488.0,	160.0,	0.0,	0.0);
TRS	:	(	700.0,	160.0,	0.0,	0.0);	TRS	:	(	1100.0,	160.0,	0.0,	0.0);
TRS	:	(	1500.0,	160.0,	0.0,	0.0);	TRS	:	(	2000.0,	160.0,	0.0,	0.0);
TRS	:	(	2500.0,	160.0,	0.0,	0.0);	TRS	:	(	3000.0,	160.0,	0.0,	0.0);
TRS	:	(	3500.0,	160.0,	0.0,	0.0);	TRS	:	(	4000.0,	160.0,	0.0,	0.0);
TRS	:	(	4500.0,	160.0,	0.0,	0.0);	TRS	:	(	5000.0,	160.0,	0.0,	0.0);
TRS	:	(	533.0,	170.0,	0.0,	0.0);	TRS	:	(	700.0,	170.0,	0.0,	0.0);
TRS	:	(	1100.0,	170.0,	0.0,	0.0);	TRS	:	(	1500.0,	170.0,	0.0,	0.0);
TRS	:	(	2000.0,	170.0,	0.0,	0.0);	TRS	:	(	2500.0,	170.0,	0.0,	0.0);
TRS	:	(	3000.0,	170.0,	0.0,	0.0);	TRS	:	(	3500.0,	170.0,	0.0,	0.0);
TRS	:	(	4000.0,	170.0,	0.0,	0.0);	TRS	:	(	4500.0,	170.0,	0.0,	0.0);
TRS	:	(	5000.0,	170.0,	0.0,	0.0);	TRS	:	(	610.0,	180.0,	0.0,	0.0);
TRS	:	(	700.0,	180.0,	0.0,	0.0);	TRS	:	(	1100.0,	180.0,	0.0,	0.0);
TRS	:	(	1500.0,	180.0,	0.0,	0.0);	TRS	:	(	2000.0,	180.0,	0.0,	0.0);
TRS	:	(	2500.0,	180.0,	0.0,	0.0);	TRS	:	(	3000.0,	180.0,	0.0,	0.0);
TRS	:	(	3500.0,	180.0,	0.0,	0.0);	TRS	:	(	4000.0,	180.0,	0.0,	0.0);
TRS	:	(	4500.0,	180.0,	0.0,	0.0);	TRS	:	(	5000.0,	180.0,	0.0,	0.0);
TRS	:	(	750.0,	190.0,	0.0,	0.0);	TRS	:	(	1100.0,	190.0,	0.0,	0.0);
TRS	:	(	1500.0,	190.0,	0.0,	0.0);	TRS	:	(	2000.0,	190.0,	0.0,	0.0);
TRS	:	(	2500.0,	190.0,	0.0,	0.0);	TRS	:	(	3000.0,	190.0,	0.0,	0.0);
TRS	:	(	3500.0,	190.0,	0.0,	0.0);	TRS	:	(	4000.0,	190.0,	0.0,	0.0);
TRS	:	(	4500.0,	190.0,	0.0,	0.0);	TRS	:	(	5000.0,	190.0,	0.0,	0.0);
TRS	:	(	1829.0,	200.0,	0.0,	0.0);	TRS	:	(	2000.0,	200.0,	0.0,	0.0);
TRS	:	(	2500.0,	200.0,	0.0,	0.0);	TRS	:	(	3000.0,	200.0,	0.0,	0.0);
TRS	:	(	3500.0,	200.0,	0.0,	0.0);	TRS	:	(	4000.0,	200.0,	0.0,	0.0);
TRS	:	(	4500.0,	200.0,	0.0,	0.0);	TRS	:	(	5000.0,	200.0,	0.0,	0.0);
TRS	:	(	1829.0,	210.0,	0.0,	0.0);	TRS	:	(	2000.0,	210.0,	0.0,	0.0);
TRS	:	(	2500.0,	210.0,	0.0,	0.0);	TRS	:	(	3000.0,	210.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	3500.0,	210.0,	0.0,	0.0);	TRS	:	(	4000.0,	210.0,	0.0,	0.0);
TRS	:	(	4500.0,	210.0,	0.0,	0.0);	TRS	:	(	5000.0,	210.0,	0.0,	0.0);
TRS	:	(	1981.0,	220.0,	0.0,	0.0);	TRS	:	(	2000.0,	220.0,	0.0,	0.0);
TRS	:	(	2500.0,	220.0,	0.0,	0.0);	TRS	:	(	3000.0,	220.0,	0.0,	0.0);
TRS	:	(	3500.0,	220.0,	0.0,	0.0);	TRS	:	(	4000.0,	220.0,	0.0,	0.0);
TRS	:	(	4500.0,	220.0,	0.0,	0.0);	TRS	:	(	5000.0,	220.0,	0.0,	0.0);
TRS	:	(	2134.0,	230.0,	0.0,	0.0);	TRS	:	(	2500.0,	230.0,	0.0,	0.0);
TRS	:	(	3000.0,	230.0,	0.0,	0.0);	TRS	:	(	3500.0,	230.0,	0.0,	0.0);
TRS	:	(	4000.0,	230.0,	0.0,	0.0);	TRS	:	(	4500.0,	230.0,	0.0,	0.0);
TRS	:	(	5000.0,	230.0,	0.0,	0.0);	TRS	:	(	2438.0,	240.0,	0.0,	0.0);
TRS	:	(	2500.0,	240.0,	0.0,	0.0);	TRS	:	(	3000.0,	240.0,	0.0,	0.0);
TRS	:	(	3500.0,	240.0,	0.0,	0.0);	TRS	:	(	4000.0,	240.0,	0.0,	0.0);
TRS	:	(	4500.0,	240.0,	0.0,	0.0);	TRS	:	(	5000.0,	240.0,	0.0,	0.0);
TRS	:	(	2896.0,	250.0,	0.0,	0.0);	TRS	:	(	3000.0,	250.0,	0.0,	0.0);
TRS	:	(	3500.0,	250.0,	0.0,	0.0);	TRS	:	(	4000.0,	250.0,	0.0,	0.0);
TRS	:	(	4500.0,	250.0,	0.0,	0.0);	TRS	:	(	5000.0,	250.0,	0.0,	0.0);
TRS	:	(	3048.0,	260.0,	0.0,	0.0);	TRS	:	(	3500.0,	260.0,	0.0,	0.0);
TRS	:	(	4000.0,	260.0,	0.0,	0.0);	TRS	:	(	4500.0,	260.0,	0.0,	0.0);
TRS	:	(	5000.0,	260.0,	0.0,	0.0);	TRS	:	(	3658.0,	270.0,	0.0,	0.0);
TRS	:	(	4000.0,	270.0,	0.0,	0.0);	TRS	:	(	4500.0,	270.0,	0.0,	0.0);
TRS	:	(	5000.0,	270.0,	0.0,	0.0);	TRS	:	(	3962.0,	280.0,	0.0,	0.0);
TRS	:	(	4000.0,	280.0,	0.0,	0.0);	TRS	:	(	4500.0,	280.0,	0.0,	0.0);
TRS	:	(	5000.0,	280.0,	0.0,	0.0);	TRS	:	(	4572.0,	290.0,	0.0,	0.0);
TRS	:	(	5000.0,	290.0,	0.0,	0.0);	TRS	:	(	5182.0,	300.0,	0.0,	0.0);
TRS	:	(	4801.0,	310.0,	0.0,	0.0);	TRS	:	(	5000.0,	310.0,	0.0,	0.0);
TRS	:	(	4875.0,	320.0,	0.0,	0.0);	TRS	:	(	5000.0,	320.0,	0.0,	0.0);
TRS	:	(	6000.0,	330.0,	0.0,	0.0);	TRS	:	(	5500.0,	340.0,	0.0,	0.0);
TRS	:	(	5250.0,	350.0,	0.0,	0.0);	TRS	:	(	5125.0,	360.0,	0.0,	0.0);

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL85.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1985

YEAR: 1985

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-O	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
85	1	1	1	351.0	4.12	292.0	5	1628.0	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	2	338.0	3.09	292.0	5	1655.5	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	3	344.0	2.57	292.0	4	1683.0	1683.0	0.0000	0.0	0.0000	0	0.00
85	1	1	4	343.0	3.09	291.5	4	1710.4	1710.4	0.0000	0.0	0.0000	0	0.00
85	1	1	5	353.0	2.57	290.9	5	1737.9	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	6	352.0	1.00	289.3	6	1765.3	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	7	305.0	2.06	288.7	6	1792.8	231.0	0.0000	0.0	0.0000	0	0.00
85	1	1	8	313.0	2.06	289.3	5	158.1	370.7	0.0000	0.0	0.0000	0	0.00
85	1	1	9	307.0	2.57	292.0	4	462.6	639.7	0.0000	0.0	0.0000	0	0.00
85	1	1	10	351.0	4.63	295.4	3	767.0	908.8	0.0000	0.0	0.0000	0	0.00
85	1	1	11	344.0	7.20	297.6	4	1071.5	1177.8	0.0000	0.0	0.0000	0	0.00
85	1	1	12	336.0	3.60	297.6	4	1376.0	1446.9	0.0000	0.0	0.0000	0	0.00
85	1	1	13	343.0	5.14	298.7	4	1680.5	1715.9	0.0000	0.0	0.0000	0	0.00
85	1	1	14	59.0	2.57	298.7	4	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	15	342.0	4.12	299.3	3	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	16	324.0	4.12	299.3	3	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	17	321.0	4.12	298.7	4	1985.0	1985.0	0.0000	0.0	0.0000	0	0.00
85	1	1	18	307.0	1.54	295.9	5	1969.9	1892.9	0.0000	0.0	0.0000	0	0.00
85	1	1	19	314.0	1.00	293.2	6	1931.7	1659.4	0.0000	0.0	0.0000	0	0.00
85	1	1	20	297.0	2.57	293.2	6	1893.5	1425.9	0.0000	0.0	0.0000	0	0.00
85	1	1	21	320.0	4.63	293.2	5	1855.3	1192.4	0.0000	0.0	0.0000	0	0.00
85	1	1	22	332.0	3.60	292.6	5	1817.1	959.0	0.0000	0.0	0.0000	0	0.00
85	1	1	23	330.0	1.00	291.5	6	1778.9	725.5	0.0000	0.0	0.0000	0	0.00
85	1	1	24	330.0	1.00	290.9	7	1740.8	492.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
 FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	10.00	0.25015	TRS	4500.00	20.00	0.31802
TRS	5000.00	20.00	0.27310	TRS	2500.00	30.00	0.71685
TRS	3000.00	30.00	0.54765	TRS	3500.00	30.00	0.43632
TRS	4000.00	30.00	0.35825	TRS	4500.00	30.00	0.30101
TRS	5000.00	30.00	0.25758	TRS	2500.00	40.00	0.57252
TRS	3000.00	40.00	0.44674	TRS	3500.00	40.00	0.36178
TRS	4000.00	40.00	0.30107	TRS	4500.00	40.00	0.25594
TRS	5000.00	40.00	0.22129	TRS	1500.00	50.00	1.02229
TRS	2000.00	50.00	0.69817	TRS	2500.00	50.00	0.51873
TRS	3000.00	50.00	0.40703	TRS	3500.00	50.00	0.33149
TRS	4000.00	50.00	0.27753	TRS	4500.00	50.00	0.23733
TRS	5000.00	50.00	0.20632	TRS	1500.00	60.00	1.16395
TRS	2000.00	60.00	0.77236	TRS	2500.00	60.00	0.56102
TRS	3000.00	60.00	0.43226	TRS	3500.00	60.00	0.34672
TRS	4000.00	60.00	0.28646	TRS	4500.00	60.00	0.24209
TRS	5000.00	60.00	0.20823	TRS	1500.00	70.00	1.40904
TRS	2000.00	70.00	0.90780	TRS	2500.00	70.00	0.65320
TRS	3000.00	70.00	0.50184	TRS	3500.00	70.00	0.40239
TRS	4000.00	70.00	0.33260	TRS	4500.00	70.00	0.28127
TRS	5000.00	70.00	0.24210	TRS	838.00	80.00	4.71351
TRS	1100.00	80.00	3.33398	TRS	1500.00	80.00	2.07584
TRS	2000.00	80.00	1.32030	TRS	2500.00	80.00	0.93732
TRS	3000.00	80.00	0.71222	TRS	3500.00	80.00	0.56661
TRS	4000.00	80.00	0.46542	TRS	4500.00	80.00	0.39148
TRS	5000.00	80.00	0.33544	TRS	686.00	90.00	6.01346
TRS	1100.00	90.00	3.70452	TRS	1500.00	90.00	2.50658
TRS	2000.00	90.00	1.68532	TRS	2500.00	90.00	1.23508
TRS	3000.00	90.00	0.95987	TRS	3500.00	90.00	0.77732
TRS	4000.00	90.00	0.64819	TRS	4500.00	90.00	0.55246
TRS	5000.00	90.00	0.47894	TRS	533.00	100.00	6.82810
TRS	700.00	100.00	5.44181	TRS	1100.00	100.00	3.56899
TRS	1500.00	100.00	2.51317	TRS	2000.00	100.00	1.72013
TRS	2500.00	100.00	1.25536	TRS	3000.00	100.00	0.96935
TRS	3500.00	100.00	0.78181	TRS	4000.00	100.00	0.65088
TRS	4500.00	100.00	0.55473	TRS	5000.00	100.00	0.48134
TRS	457.00	110.00	6.00759	TRS	700.00	110.00	4.70319
TRS	1100.00	110.00	3.24999	TRS	1500.00	110.00	2.32526
TRS	2000.00	110.00	1.66335	TRS	2500.00	110.00	1.25999
TRS	3000.00	110.00	0.99563	TRS	3500.00	110.00	0.81398
TRS	4000.00	110.00	0.68340	TRS	4500.00	110.00	0.58575

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TRS :	5000.00	110.00	0.51035	TRS :	457.00	120.00	4.71764
TRS :	700.00	120.00	3.90279	TRS :	1100.00	120.00	2.99973
TRS :	1500.00	120.00	2.16646	TRS :	2000.00	120.00	1.45085
TRS :	2500.00	120.00	1.07299	TRS :	3000.00	120.00	0.85955
TRS :	3500.00	120.00	0.72178	TRS :	4000.00	120.00	0.62314
TRS :	4500.00	120.00	0.54768	TRS :	5000.00	120.00	0.48757
TRS :	457.00	130.00	4.79182	TRS :	700.00	130.00	3.16677
TRS :	1100.00	130.00	2.18074	TRS :	1500.00	130.00	1.63948
TRS :	2000.00	130.00	1.22392	TRS :	2500.00	130.00	0.96549
TRS :	3000.00	130.00	0.79204	TRS :	3500.00	130.00	0.66807
TRS :	4000.00	130.00	0.57516	TRS :	4500.00	130.00	0.50307
TRS :	5000.00	130.00	0.44559	TRS :	457.00	140.00	4.72430
TRS :	700.00	140.00	3.43207	TRS :	1100.00	140.00	2.13187
TRS :	1500.00	140.00	1.44270	TRS :	2000.00	140.00	0.98369
TRS :	2500.00	140.00	0.74220	TRS :	3000.00	140.00	0.59607
TRS :	3500.00	140.00	0.49724	TRS :	4000.00	140.00	0.42527
TRS :	4500.00	140.00	0.37024	TRS :	5000.00	140.00	0.32674
TRS :	457.00	150.00	4.89260	TRS :	700.00	150.00	3.31672
TRS :	1100.00	150.00	2.21434	TRS :	1500.00	150.00	1.63541
TRS :	2000.00	150.00	1.17596	TRS :	2500.00	150.00	0.88573
TRS :	3000.00	150.00	0.69597	TRS :	3500.00	150.00	0.56589
TRS :	4000.00	150.00	0.47265	TRS :	4500.00	150.00	0.40318
TRS :	5000.00	150.00	0.34975	TRS :	488.00	160.00	4.24134
TRS :	700.00	160.00	3.36403	TRS :	1100.00	160.00	2.31916
TRS :	1500.00	160.00	1.63648	TRS :	2000.00	160.00	1.16028
TRS :	2500.00	160.00	0.88191	TRS :	3000.00	160.00	0.70352
TRS :	3500.00	160.00	0.58050	TRS :	4000.00	160.00	0.49102
TRS :	4500.00	160.00	0.42329	TRS :	5000.00	160.00	0.37043
TRS :	533.00	170.00	3.71080	TRS :	700.00	170.00	3.16988
TRS :	1100.00	170.00	2.16464	TRS :	1500.00	170.00	1.53756
TRS :	2000.00	170.00	1.09357	TRS :	2500.00	170.00	0.84187
TRS :	3000.00	170.00	0.68374	TRS :	3500.00	170.00	0.57506
TRS :	4000.00	170.00	0.49545	TRS :	4500.00	170.00	0.43442
TRS :	5000.00	170.00	0.38604	TRS :	610.00	180.00	2.75963
TRS :	700.00	180.00	2.48954	TRS :	1100.00	180.00	1.75013
TRS :	1500.00	180.00	1.36069	TRS :	2000.00	180.00	1.05284
TRS :	2500.00	180.00	0.84646	TRS :	3000.00	180.00	0.70075
TRS :	3500.00	180.00	0.59326	TRS :	4000.00	180.00	0.51131
TRS :	4500.00	180.00	0.44708	TRS :	5000.00	180.00	0.39558
TRS :	750.00	190.00	2.34361	TRS :	1100.00	190.00	1.65636

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	1500.00	190.00	1.19996	TRS	2000.00	190.00	0.87439
TRS	2500.00	190.00	0.67883	TRS	3000.00	190.00	0.55045
TRS	3500.00	190.00	0.46014	TRS	4000.00	190.00	0.39343
TRS	4500.00	190.00	0.34227	TRS	5000.00	190.00	0.30190
TRS	1829.00	200.00	0.96077	TRS	2000.00	200.00	0.86561
TRS	2500.00	200.00	0.66297	TRS	3000.00	200.00	0.53084
TRS	3500.00	200.00	0.43867	TRS	4000.00	200.00	0.37120
TRS	4500.00	200.00	0.31993	TRS	5000.00	200.00	0.27982
TRS	1829.00	210.00	1.14033	TRS	2000.00	210.00	1.03572
TRS	2500.00	210.00	0.80784	TRS	3000.00	210.00	0.65504
TRS	3500.00	210.00	0.54631	TRS	4000.00	210.00	0.46549
TRS	4500.00	210.00	0.40336	TRS	5000.00	210.00	0.35431
TRS	1981.00	220.00	0.92227	TRS	2000.00	220.00	0.91354
TRS	2500.00	220.00	0.72798	TRS	3000.00	220.00	0.60131
TRS	3500.00	220.00	0.50950	TRS	4000.00	220.00	0.44038
TRS	4500.00	220.00	0.38662	TRS	5000.00	220.00	0.34362
TRS	2134.00	230.00	0.93250	TRS	2500.00	230.00	0.78918
TRS	3000.00	230.00	0.64738	TRS	3500.00	230.00	0.54510
TRS	4000.00	230.00	0.46836	TRS	4500.00	230.00	0.40876
TRS	5000.00	230.00	0.36128	TRS	2438.00	240.00	0.87003
TRS	2500.00	240.00	0.84669	TRS	3000.00	240.00	0.69231
TRS	3500.00	240.00	0.58130	TRS	4000.00	240.00	0.49826
TRS	4500.00	240.00	0.43397	TRS	5000.00	240.00	0.38285
TRS	2896.00	250.00	0.76205	TRS	3000.00	250.00	0.73246
TRS	3500.00	250.00	0.61403	TRS	4000.00	250.00	0.52494
TRS	4500.00	250.00	0.45573	TRS	5000.00	250.00	0.40077
TRS	3048.00	260.00	0.94616	TRS	3500.00	260.00	0.80853
TRS	4000.00	260.00	0.69139	TRS	4500.00	260.00	0.60017
TRS	5000.00	260.00	0.52756	TRS	3658.00	270.00	1.02546
TRS	4000.00	270.00	0.92645	TRS	4500.00	270.00	0.80797
TRS	5000.00	270.00	0.71293	TRS	3962.00	280.00	0.68284
TRS	4000.00	280.00	0.67365	TRS	4500.00	280.00	0.57002
TRS	5000.00	280.00	0.49094	TRS	4572.00	290.00	0.48482
TRS	5000.00	290.00	0.43165	TRS	5182.00	300.00	0.40914
TRS	4801.00	310.00	0.36419	TRS	5000.00	310.00	0.34268
TRS	4875.00	320.00	0.30694	TRS	5000.00	320.00	0.29619
TRS	6000.00	330.00	0.21734	TRS	5500.00	340.00	0.21524
TRS	5250.00	350.00	0.32815	TRS	5125.00	360.00	0.32166

MODELPTS: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN						
SRCID	DIST (M)	DIR (DEG)	CONC (YYMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMDDHH)			
TRS	5000.00	10.00	3.70316c (85061324)	TRS	4500.00	20.00	6.82475 (85061224)			
TRS	5000.00	20.00	5.93213 (85061224)	TRS	2500.00	30.00	10.25372c (85081724)			
TRS	3000.00	30.00	8.17293c (85081724)	TRS	3500.00	30.00	6.73349c (85081724)			
TRS	4000.00	30.00	5.68515c (85081724)	TRS	4500.00	30.00	4.88965c (85081724)			
TRS	5000.00	30.00	4.26764c (85081724)	TRS	2500.00	40.00	11.72953c (85070124)			
TRS	3000.00	40.00	9.22131c (85070124)	TRS	3500.00	40.00	7.48957c (85070124)			
TRS	4000.00	40.00	6.23257c (85070124)	TRS	4500.00	40.00	5.28795c (85070124)			
TRS	5000.00	40.00	4.55719c (85070124)	TRS	1500.00	50.00	14.00129c (85033124)			
TRS	2000.00	50.00	9.77198c (85033124)	TRS	2500.00	50.00	7.25149c (85033124)			
TRS	3000.00	50.00	5.63664c (85033124)	TRS	3500.00	50.00	4.53285c (85033124)			
TRS	4000.00	50.00	3.73943c (85033124)	TRS	4500.00	50.00	3.20324c (85040524)			
TRS	5000.00	50.00	2.92385c (85040524)	TRS	1500.00	60.00	12.62351 (85121324)			
TRS	2000.00	60.00	9.08729 (85121324)	TRS	2500.00	60.00	6.82849 (85121324)			
TRS	3000.00	60.00	5.34009 (85121324)	TRS	3500.00	60.00	4.30877 (85121324)			
TRS	4000.00	60.00	3.56212 (85121324)	TRS	4500.00	60.00	3.00302 (85121324)			
TRS	5000.00	60.00	2.70149c (85120224)	TRS	1500.00	70.00	18.96105c (85052124)			
TRS	2000.00	70.00	11.86436c (85052124)	TRS	2500.00	70.00	8.21844c (85052124)			
TRS	3000.00	70.00	6.11373c (85052124)	TRS	3500.00	70.00	4.77799c (85052124)			
TRS	4000.00	70.00	3.86702c (85052124)	TRS	4500.00	70.00	3.21280c (85052124)			
TRS	5000.00	70.00	2.72412c (85052124)	TRS	838.00	80.00	54.58214c (85101124)			
TRS	1100.00	80.00	28.19685 (85041624)	TRS	1500.00	80.00	21.88722c (85061924)			
TRS	2000.00	80.00	15.31306c (85061924)	TRS	2500.00	80.00	10.44339c (85061924)			
TRS	3000.00	80.00	7.45917c (85061924)	TRS	3500.00	80.00	5.60511c (85061924)			
TRS	4000.00	80.00	4.39387c (85061924)	TRS	4500.00	80.00	3.56347c (85061924)			
TRS	5000.00	80.00	2.96929c (85061924)	TRS	686.00	90.00	43.67144c (85032324)			
TRS	1100.00	90.00	40.98520c (85101124)	TRS	1500.00	90.00	33.58329c (85101124)			
TRS	2000.00	90.00	23.12306c (85101124)	TRS	2500.00	90.00	16.61244c (85101124)			
TRS	3000.00	90.00	12.66469c (85101124)	TRS	3500.00	90.00	10.14842c (85101124)			
TRS	4000.00	90.00	8.42659c (85101124)	TRS	4500.00	90.00	7.23520c (85080224)			
TRS	5000.00	90.00	6.65712c (85080224)	TRS	533.00	100.00	57.49535c (85012324)			
TRS	700.00	100.00	54.79420c (85110624)	TRS	1100.00	100.00	36.72070 (85011824)			
TRS	1500.00	100.00	31.49588c (85032324)	TRS	2000.00	100.00	20.19368c (85032324)			
TRS	2500.00	100.00	11.59702c (85032324)	TRS	3000.00	100.00	7.77049c (85110224)			
TRS	3500.00	100.00	6.58028c (85110624)	TRS	4000.00	100.00	6.32551c (85110624)			
TRS	4500.00	100.00	6.01615c (85110624)	TRS	5000.00	100.00	5.68591c (85110624)			
TRS	457.00	110.00	69.06979c (85040224)	TRS	700.00	110.00	46.59351 (85010524)			
TRS	1100.00	110.00	32.53508c (85012324)	TRS	1500.00	110.00	21.73407c (85042724)			
TRS	2000.00	110.00	20.99695c (85110624)	TRS	2500.00	110.00	16.26246c (85110624)			
TRS	3000.00	110.00	11.89314c (85110624)	TRS	3500.00	110.00	8.74527c (85110624)			
TRS	4000.00	110.00	6.79000 (85011824)	TRS	4500.00	110.00	6.16470 (85011824)			

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS :	5000.00	110.00	5.61328 (85011824)	TRS :	457.00	120.00	46.48241c (85070824)
TRS :	700.00	120.00	51.05872c (85040224)	TRS :	1100.00	120.00	32.93383c (85122024)
TRS :	1500.00	120.00	25.98122 (85010524)	TRS :	2000.00	120.00	18.63477 (85010524)
TRS :	2500.00	120.00	13.05837 (85010524)	TRS :	3000.00	120.00	9.67769 (85010524)
TRS :	3500.00	120.00	7.52656 (85010524)	TRS :	4000.00	120.00	6.73086c (85122624)
TRS :	4500.00	120.00	6.32738c (85122624)	TRS :	5000.00	120.00	5.86855c (85122624)
TRS :	457.00	130.00	51.88305c (85121624)	TRS :	700.00	130.00	31.40134c (85021724)
TRS :	1100.00	130.00	23.24555c (85011524)	TRS :	1500.00	130.00	22.43008c (85040224)
TRS :	2000.00	130.00	19.98453c (85040224)	TRS :	2500.00	130.00	16.59118c (85040224)
TRS :	3000.00	130.00	13.53163c (85040224)	TRS :	3500.00	130.00	11.07208c (85040224)
TRS :	4000.00	130.00	9.15794c (85040224)	TRS :	4500.00	130.00	8.06349c (85122024)
TRS :	5000.00	130.00	7.61919c (85122024)	TRS :	457.00	140.00	55.98775 (85020724)
TRS :	700.00	140.00	45.43899c (85121624)	TRS :	1100.00	140.00	21.85767c (85121624)
TRS :	1500.00	140.00	13.22424c (85120524)	TRS :	2000.00	140.00	12.74729c (85021724)
TRS :	2500.00	140.00	11.69422c (85021724)	TRS :	3000.00	140.00	9.77309c (85021724)
TRS :	3500.00	140.00	8.02355c (85021724)	TRS :	4000.00	140.00	6.62070c (85021724)
TRS :	4500.00	140.00	5.52668c (85021724)	TRS :	5000.00	140.00	4.67262c (85021724)
TRS :	457.00	150.00	45.72214c (85040824)	TRS :	700.00	150.00	43.82654 (85020724)
TRS :	1100.00	150.00	29.46004c (85121624)	TRS :	1500.00	150.00	23.67308c (85121624)
TRS :	2000.00	150.00	18.06111c (85121624)	TRS :	2500.00	150.00	13.61950c (85121624)
TRS :	3000.00	150.00	10.36784c (85121624)	TRS :	3500.00	150.00	8.10305c (85121624)
TRS :	4000.00	150.00	6.52042c (85121624)	TRS :	4500.00	150.00	5.38749c (85121624)
TRS :	5000.00	150.00	4.55207c (85121624)	TRS :	488.00	160.00	37.65700 (85121524)
TRS :	700.00	160.00	41.87783 (85121524)	TRS :	1100.00	160.00	21.99264c (85040824)
TRS :	1500.00	160.00	16.33234 (85020724)	TRS :	2000.00	160.00	13.35049 (85020724)
TRS :	2500.00	160.00	10.76358 (85020724)	TRS :	3000.00	160.00	9.33019c (85092624)
TRS :	3500.00	160.00	8.08465c (85092624)	TRS :	4000.00	160.00	7.04358c (85092624)
TRS :	4500.00	160.00	6.18840c (85092624)	TRS :	5000.00	160.00	5.48483c (85092624)
TRS :	533.00	170.00	44.26122c (85100624)	TRS :	700.00	170.00	34.13587c (85100624)
TRS :	1100.00	170.00	24.13563c (85121924)	TRS :	1500.00	170.00	16.23620 (85020724)
TRS :	2000.00	170.00	12.60702 (85121524)	TRS :	2500.00	170.00	10.62523 (85121524)
TRS :	3000.00	170.00	9.18591 (85121524)	TRS :	3500.00	170.00	8.11757 (85121524)
TRS :	4000.00	170.00	7.28679 (85121524)	TRS :	4500.00	170.00	6.61459 (85121524)
TRS :	5000.00	170.00	6.05454 (85121524)	TRS :	610.00	180.00	34.96674c (85022824)
TRS :	700.00	180.00	27.91131c (85022824)	TRS :	1100.00	180.00	21.56164c (85120724)
TRS :	1500.00	180.00	20.11257 (85120324)	TRS :	2000.00	180.00	16.95129c (85040924)
TRS :	2500.00	180.00	14.21573c (85040924)	TRS :	3000.00	180.00	11.94929c (85040924)
TRS :	3500.00	180.00	10.87762c (85100624)	TRS :	4000.00	180.00	9.95354c (85100624)
TRS :	4500.00	180.00	9.09459c (85100624)	TRS :	5000.00	180.00	8.32206c (85100624)
TRS :	750.00	190.00	24.60899c (85102524)	TRS :	1100.00	190.00	18.49437c (85112324)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YMMDDHH)
TRS	1500.00	190.00	13.50163c	(85112324)	TRS	2000.00	190.00	10.16108c	(85121924)
TRS	2500.00	190.00	8.54906c	(85121924)	TRS	3000.00	190.00	7.59628c	(85022824)
TRS	3500.00	190.00	6.84550c	(85022824)	TRS	4000.00	190.00	6.18658c	(85022824)
TRS	4500.00	190.00	5.61504c	(85022824)	TRS	5000.00	190.00	5.12050c	(85022824)
TRS	1829.00	200.00	15.24268c	(85102524)	TRS	2000.00	200.00	13.93193c	(85102524)
TRS	2500.00	200.00	10.99380c	(85102524)	TRS	3000.00	200.00	8.97132c	(85102524)
TRS	3500.00	200.00	7.50509c	(85102524)	TRS	4000.00	200.00	6.40122c	(85102524)
TRS	4500.00	200.00	5.54486c	(85102524)	TRS	5000.00	200.00	4.86460c	(85102524)
TRS	1829.00	210.00	14.72341c	(85112424)	TRS	2000.00	210.00	13.51624c	(85112424)
TRS	2500.00	210.00	10.76986c	(85112424)	TRS	3000.00	210.00	8.85108c	(85112424)
TRS	3500.00	210.00	7.44206c	(85112424)	TRS	4000.00	210.00	6.37127c	(85112424)
TRS	4500.00	210.00	5.53472c	(85112424)	TRS	5000.00	210.00	4.86634c	(85112424)
TRS	1981.00	220.00	8.97175	(85111124)	TRS	2000.00	220.00	8.89614	(85111124)
TRS	2500.00	220.00	7.26457	(85050424)	TRS	3000.00	220.00	6.16772	(85050424)
TRS	3500.00	220.00	5.32931	(85050424)	TRS	4000.00	220.00	4.67422	(85050424)
TRS	4500.00	220.00	4.14906	(85050424)	TRS	5000.00	220.00	3.71833	(85050424)
TRS	2134.00	230.00	10.07367c	(85091724)	TRS	2500.00	230.00	8.61821c	(85091724)
TRS	3000.00	230.00	7.15707c	(85091724)	TRS	3500.00	230.00	6.09145c	(85091724)
TRS	4000.00	230.00	5.28398c	(85091724)	TRS	4500.00	230.00	4.65039c	(85091724)
TRS	5000.00	230.00	4.14009c	(85091724)	TRS	2438.00	240.00	8.08002	(85020424)
TRS	2500.00	240.00	7.85706	(85020424)	TRS	3000.00	240.00	6.58111	(85091424)
TRS	3500.00	240.00	5.62770	(85091424)	TRS	4000.00	240.00	4.88129	(85091424)
TRS	4500.00	240.00	4.28554	(85091424)	TRS	5000.00	240.00	3.80171	(85091424)
TRS	2896.00	250.00	8.05758c	(85081224)	TRS	3000.00	250.00	7.75422c	(85081224)
TRS	3500.00	250.00	6.50801c	(85081224)	TRS	4000.00	250.00	5.54581c	(85081224)
TRS	4500.00	250.00	4.79125c	(85081224)	TRS	5000.00	250.00	4.19136c	(85081224)
TRS	3048.00	260.00	13.99076c	(85081524)	TRS	3500.00	260.00	11.75013c	(85081524)
TRS	4000.00	260.00	9.76486c	(85081524)	TRS	4500.00	260.00	8.20880c	(85081524)
TRS	5000.00	260.00	6.98301c	(85081524)	TRS	3658.00	270.00	10.44186c	(85102324)
TRS	4000.00	270.00	9.53296c	(85102324)	TRS	4500.00	270.00	8.41396c	(85102324)
TRS	5000.00	270.00	7.49508c	(85102324)	TRS	3962.00	280.00	8.93005	(85041224)
TRS	4000.00	280.00	8.80733	(85041224)	TRS	4500.00	280.00	7.41582	(85041224)
TRS	5000.00	280.00	6.34785	(85041224)	TRS	4572.00	290.00	5.50790c	(85112524)
TRS	5000.00	290.00	4.76002c	(85112524)	TRS	5182.00	300.00	4.35955c	(85032124)
TRS	4801.00	310.00	4.67892c	(85010124)	TRS	5000.00	310.00	4.39127c	(85010124)
TRS	4875.00	320.00	4.92402c	(85062924)	TRS	5000.00	320.00	4.81797c	(85062924)
TRS	6000.00	330.00	4.14245c	(85112924)	TRS	5500.00	340.00	3.63899c	(85082124)
TRS	5250.00	350.00	5.65913c	(85112824)	TRS	5125.00	360.00	4.52816c	(85052024)

MODELOPTS: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	11.10948c	(85061308)	TRS	4500.00	20.00	13.71280	(85063024)
TRS	5000.00	20.00	12.05763	(85063024)	TRS	2500.00	30.00	17.21766c	(85082124)
TRS	3000.00	30.00	13.37708c	(85082124)	TRS	3500.00	30.00	10.78351c	(85082124)
TRS	4000.00	30.00	8.92048c	(85082124)	TRS	4500.00	30.00	7.53177c	(85082124)
TRS	5000.00	30.00	6.46535c	(85082124)	TRS	2500.00	40.00	15.51375	(85070116)
TRS	3000.00	40.00	14.17882c	(85012008)	TRS	3500.00	40.00	12.94051c	(85012008)
TRS	4000.00	40.00	11.73796c	(85012008)	TRS	4500.00	40.00	10.66353c	(85012008)
TRS	5000.00	40.00	9.72901c	(85012008)	TRS	1500.00	50.00	20.45738	(85123124)
TRS	2000.00	50.00	15.33473	(85123124)	TRS	2500.00	50.00	12.08241	(85123124)
TRS	3000.00	50.00	10.04325c	(85100408)	TRS	3500.00	50.00	9.18261c	(85100408)
TRS	4000.00	50.00	8.47538c	(85100408)	TRS	4500.00	50.00	7.87767c	(85100408)
TRS	5000.00	50.00	7.33975c	(85100408)	TRS	1500.00	60.00	37.37098	(85121324)
TRS	2000.00	60.00	27.07244	(85121324)	TRS	2500.00	60.00	20.38971	(85121324)
TRS	3000.00	60.00	15.96293	(85121324)	TRS	3500.00	60.00	12.88817	(85121324)
TRS	4000.00	60.00	10.65919	(85121324)	TRS	4500.00	60.00	8.98877	(85121324)
TRS	5000.00	60.00	7.76678	(85120208)	TRS	1500.00	70.00	30.00391c	(85091024)
TRS	2000.00	70.00	17.24714	(85052124)	TRS	2500.00	70.00	12.41545	(85052124)
TRS	3000.00	70.00	10.40456c	(85071424)	TRS	3500.00	70.00	9.04202c	(85071424)
TRS	4000.00	70.00	7.89643c	(85071424)	TRS	4500.00	70.00	6.94513c	(85071424)
TRS	5000.00	70.00	6.15465c	(85071424)	TRS	838.00	80.00	79.88954	(85101108)
TRS	1100.00	80.00	56.30132	(85041608)	TRS	1500.00	80.00	35.77539	(85041608)
TRS	2000.00	80.00	23.42709	(85110724)	TRS	2500.00	80.00	17.61140	(85110724)
TRS	3000.00	80.00	13.34238c	(85031324)	TRS	3500.00	80.00	10.96105c	(85031324)
TRS	4000.00	80.00	9.24181c	(85081724)	TRS	4500.00	80.00	8.12222c	(85081724)
TRS	5000.00	80.00	7.15742c	(85081724)	TRS	686.00	90.00	65.12014c	(85122216)
TRS	1100.00	90.00	65.96156c	(85042424)	TRS	1500.00	90.00	53.47013	(85101108)
TRS	2000.00	90.00	41.35288	(85101108)	TRS	2500.00	90.00	31.06154	(85101108)
TRS	3000.00	90.00	26.19003c	(85080208)	TRS	3500.00	90.00	24.88778c	(85080208)
TRS	4000.00	90.00	23.18426c	(85080208)	TRS	4500.00	90.00	21.42172c	(85080208)
TRS	5000.00	90.00	19.74177c	(85080208)	TRS	533.00	100.00	108.43034	(85012308)
TRS	700.00	100.00	76.03069c	(85110608)	TRS	1100.00	100.00	69.69537	(85042908)
TRS	1500.00	100.00	66.49362	(85032308)	TRS	2000.00	100.00	40.90643	(85032308)
TRS	2500.00	100.00	24.30543c	(85110208)	TRS	3000.00	100.00	22.31006c	(85110208)
TRS	3500.00	100.00	19.40832c	(85110208)	TRS	4000.00	100.00	16.63936c	(85110208)
TRS	4500.00	100.00	14.26429c	(85110208)	TRS	5000.00	100.00	12.29542c	(85110208)
TRS	457.00	110.00	116.31580c	(85053108)	TRS	700.00	110.00	71.23415	(85060208)
TRS	1100.00	110.00	64.20600	(85012308)	TRS	1500.00	110.00	47.81593	(85042724)
TRS	2000.00	110.00	31.60824c	(85110608)	TRS	2500.00	110.00	26.87926c	(85110608)
TRS	3000.00	110.00	25.08472c	(85070208)	TRS	3500.00	110.00	24.05637c	(85070208)
TRS	4000.00	110.00	22.36358c	(85070208)	TRS	4500.00	110.00	20.51446c	(85070208)

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	18.72645c	(85070208)	TRS	457.00	120.00	84.21854c	(85021708)
TRS	700.00	120.00	89.33839c	(85040224)	TRS	1100.00	120.00	54.14702c	(85041708)
TRS	1500.00	120.00	36.75977	(85010524)	TRS	2000.00	120.00	26.67745	(85060208)
TRS	2500.00	120.00	21.00304	(85060208)	TRS	3000.00	120.00	17.96012	(85040724)
TRS	3500.00	120.00	16.44246	(85040724)	TRS	4000.00	120.00	14.56688	(85040724)
TRS	4500.00	120.00	12.74259	(85040724)	TRS	5000.00	120.00	11.83421	(85012308)
TRS	457.00	130.00	95.25247	(85020724)	TRS	700.00	130.00	74.92657c	(85021708)
TRS	1100.00	130.00	40.27291c	(85051608)	TRS	1500.00	130.00	38.05436c	(85040224)
TRS	2000.00	130.00	32.23455c	(85040224)	TRS	2500.00	130.00	26.92708c	(85053108)
TRS	3000.00	130.00	26.37954c	(85053108)	TRS	3500.00	130.00	24.97248c	(85053108)
TRS	4000.00	130.00	23.03355c	(85053108)	TRS	4500.00	130.00	20.93125c	(85053108)
TRS	5000.00	130.00	18.88812c	(85053108)	TRS	457.00	140.00	101.49857	(85020708)
TRS	700.00	140.00	70.17644	(85020724)	TRS	1100.00	140.00	50.14762	(85020724)
TRS	1500.00	140.00	26.27052	(85020724)	TRS	2000.00	140.00	34.89825c	(85021708)
TRS	2500.00	140.00	33.17230c	(85021708)	TRS	3000.00	140.00	28.10360c	(85021708)
TRS	3500.00	140.00	23.23601c	(85021708)	TRS	4000.00	140.00	19.25647c	(85021708)
TRS	4500.00	140.00	16.12190c	(85021708)	TRS	5000.00	140.00	13.65986c	(85021708)
TRS	457.00	150.00	88.31671c	(85062508)	TRS	700.00	150.00	95.97842	(85020708)
TRS	1100.00	150.00	45.68607c	(85051624)	TRS	1500.00	150.00	41.26778c	(85051624)
TRS	2000.00	150.00	28.38680c	(85051624)	TRS	2500.00	150.00	21.49929c	(85121624)
TRS	3000.00	150.00	16.84008c	(85121624)	TRS	3500.00	150.00	13.73921	(85020724)
TRS	4000.00	150.00	11.83845	(85020724)	TRS	4500.00	150.00	10.28364	(85020724)
TRS	5000.00	150.00	9.01091	(85020724)	TRS	488.00	160.00	68.69772c	(85121708)
TRS	700.00	160.00	60.83188c	(85021624)	TRS	1100.00	160.00	50.88564c	(85062508)
TRS	1500.00	160.00	38.40097	(85020708)	TRS	2000.00	160.00	32.17775	(85080508)
TRS	2500.00	160.00	26.64181	(85080508)	TRS	3000.00	160.00	22.81524c	(85092608)
TRS	3500.00	160.00	20.10985c	(85092608)	TRS	4000.00	160.00	17.75590c	(85092608)
TRS	4500.00	160.00	15.77206c	(85092608)	TRS	5000.00	160.00	14.10880c	(85092608)
TRS	533.00	170.00	79.55732	(85100608)	TRS	700.00	170.00	70.97337c	(85121924)
TRS	1100.00	170.00	49.13187c	(85121924)	TRS	1500.00	170.00	33.19248c	(85121708)
TRS	2000.00	170.00	25.47920	(85121524)	TRS	2500.00	170.00	21.54414	(85121524)
TRS	3000.00	170.00	18.11494	(85121524)	TRS	3500.00	170.00	15.59353c	(85021624)
TRS	4000.00	170.00	14.60954c	(85021624)	TRS	4500.00	170.00	13.58324c	(85021624)
TRS	5000.00	170.00	12.58933c	(85021624)	TRS	610.00	180.00	61.25019c	(85101708)
TRS	700.00	180.00	51.81350c	(85101708)	TRS	1100.00	180.00	36.47369	(85091508)
TRS	1500.00	180.00	34.01995	(85120308)	TRS	2000.00	180.00	27.61981	(85040908)
TRS	2500.00	180.00	25.33867	(85040908)	TRS	3000.00	180.00	23.55171	(85100608)
TRS	3500.00	180.00	21.95316	(85100608)	TRS	4000.00	180.00	20.22809	(85100608)
TRS	4500.00	180.00	18.56996	(85100608)	TRS	5000.00	180.00	17.04891	(85100608)
TRS	750.00	190.00	56.35389c	(85020824)	TRS	1100.00	190.00	46.96863c	(85110908)

*MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	35.54651c	(85101708)	TRS	2000.00	190.00	28.75784c	(85101708)
TRS	2500.00	190.00	24.35690c	(85101708)	TRS	3000.00	190.00	21.20097c	(85101708)
TRS	3500.00	190.00	18.80326c	(85101708)	TRS	4000.00	190.00	16.91169c	(85101708)
TRS	4500.00	190.00	15.37865c	(85101708)	TRS	5000.00	190.00	14.10996c	(85101708)
TRS	1829.00	200.00	25.09193c	(85111208)	TRS	2000.00	200.00	23.05868c	(85111208)
TRS	2500.00	200.00	18.28468c	(85111208)	TRS	3000.00	200.00	14.86612c	(85111208)
TRS	3500.00	200.00	12.35630c	(85111208)	TRS	4000.00	200.00	11.03650c	(85041108)
TRS	4500.00	200.00	10.27790c	(85041108)	TRS	5000.00	200.00	9.58453c	(85041108)
TRS	1829.00	210.00	30.71874	(85092108)	TRS	2000.00	210.00	28.68867	(85092108)
TRS	2500.00	210.00	23.86611	(85092108)	TRS	3000.00	210.00	20.27641	(85092108)
TRS	3500.00	210.00	17.52667	(85092108)	TRS	4000.00	210.00	15.36447	(85092108)
TRS	4500.00	210.00	13.62321	(85092108)	TRS	5000.00	210.00	12.19505	(85092108)
TRS	1981.00	220.00	23.05291	(85041408)	TRS	2000.00	220.00	22.81343	(85041408)
TRS	2500.00	220.00	17.68832	(85041408)	TRS	3000.00	220.00	14.20307	(85041408)
TRS	3500.00	220.00	11.70276	(85041408)	TRS	4000.00	220.00	9.85038	(85111108)
TRS	4500.00	220.00	8.56632	(85111108)	TRS	5000.00	220.00	7.53331	(85111108)
TRS	2134.00	230.00	17.83574c	(85030808)	TRS	2500.00	230.00	15.04742c	(85030808)
TRS	3000.00	230.00	12.53639	(85031608)	TRS	3500.00	230.00	10.72963	(85031608)
TRS	4000.00	230.00	9.32624	(85031608)	TRS	4500.00	230.00	8.21712	(85031608)
TRS	5000.00	230.00	7.33141c	(85091708)	TRS	2438.00	240.00	19.49789c	(85120824)
TRS	2500.00	240.00	19.13971c	(85120824)	TRS	3000.00	240.00	16.58543c	(85120824)
TRS	3500.00	240.00	14.55250c	(85120824)	TRS	4000.00	240.00	12.92052c	(85120824)
TRS	4500.00	240.00	11.58314c	(85120824)	TRS	5000.00	240.00	10.46864c	(85120824)
TRS	2896.00	250.00	15.72511c	(85081208)	TRS	3000.00	250.00	15.10021c	(85081208)
TRS	3500.00	250.00	12.55955c	(85081208)	TRS	4000.00	250.00	10.62985c	(85081208)
TRS	4500.00	250.00	9.44569	(85040708)	TRS	5000.00	250.00	8.48124	(85040708)
TRS	3048.00	260.00	39.88546c	(85081508)	TRS	3500.00	260.00	33.31385c	(85081508)
TRS	4000.00	260.00	27.52903c	(85081508)	TRS	4500.00	260.00	23.02229c	(85081508)
TRS	5000.00	260.00	19.49146c	(85081508)	TRS	3658.00	270.00	22.64429c	(85102324)
TRS	4000.00	270.00	20.63984c	(85102324)	TRS	4500.00	270.00	18.19019c	(85102324)
TRS	5000.00	270.00	16.19198c	(85102324)	TRS	3962.00	280.00	18.82029c	(85030408)
TRS	4000.00	280.00	18.54614c	(85030408)	TRS	4500.00	280.00	15.43479c	(85030408)
TRS	5000.00	280.00	13.05134c	(85030408)	TRS	4572.00	290.00	13.32959c	(85072608)
TRS	5000.00	290.00	12.08553c	(85072608)	TRS	5182.00	300.00	13.40050c	(85032108)
TRS	4801.00	310.00	11.57833c	(85112824)	TRS	5000.00	310.00	11.15034c	(85112824)
TRS	4875.00	320.00	14.43372c	(85062908)	TRS	5000.00	320.00	14.12755c	(85062908)
TRS	6000.00	330.00	9.26130c	(85112908)	TRS	5500.00	340.00	8.70533c	(85082424)
TRS	5250.00	350.00	18.80169c	(85112808)	TRS	5125.00	360.00	11.76742c	(85052024)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	22.21896c	(85061303)	TRS	4500.00	20.00	30.16976	(85063021)
TRS	5000.00	20.00	26.80168	(85063021)	TRS	2500.00	30.00	35.01784	(85080818)
TRS	3000.00	30.00	27.61624	(85081721)	TRS	3500.00	30.00	23.07810	(85081721)
TRS	4000.00	30.00	19.69049	(85081721)	TRS	4500.00	30.00	17.07006	(85081721)
TRS	5000.00	30.00	14.99208	(85081721)	TRS	2500.00	40.00	37.97502	(85012009)
TRS	3000.00	40.00	34.31228	(85012009)	TRS	3500.00	40.00	30.65502	(85012009)
TRS	4000.00	40.00	27.39410	(85012009)	TRS	4500.00	40.00	24.60583	(85012009)
TRS	5000.00	40.00	22.24687	(85012009)	TRS	1500.00	50.00	41.21774	(85022612)
TRS	2000.00	50.00	29.46723	(85022612)	TRS	2500.00	50.00	24.77991	(85120118)
TRS	3000.00	50.00	21.20982	(85120118)	TRS	3500.00	50.00	18.39253	(85120118)
TRS	4000.00	50.00	16.95076	(85100403)	TRS	4500.00	50.00	15.75535	(85100403)
TRS	5000.00	50.00	14.67950	(85100403)	TRS	1500.00	60.00	49.45897	(85121318)
TRS	2000.00	60.00	36.59259	(85121318)	TRS	2500.00	60.00	27.75201	(85121318)
TRS	3000.00	60.00	21.78134	(85121318)	TRS	3500.00	60.00	17.68490	(85120203)
TRS	4000.00	60.00	15.69231	(85120203)	TRS	4500.00	60.00	14.03767	(85120203)
TRS	5000.00	60.00	12.63580	(85120203)	TRS	1500.00	70.00	46.31343	(85091018)
TRS	2000.00	70.00	33.80940	(85053121)	TRS	2500.00	70.00	26.07851	(85053121)
TRS	3000.00	70.00	20.80912	(85071421)	TRS	3500.00	70.00	18.08404	(85071421)
TRS	4000.00	70.00	15.79286	(85071421)	TRS	4500.00	70.00	13.89025	(85071421)
TRS	5000.00	70.00	12.30931	(85071421)	TRS	838.00	80.00	152.63182	(85080203)
TRS	1100.00	80.00	90.48173c	(85040324)	TRS	1500.00	80.00	54.73005	(85041606)
TRS	2000.00	80.00	41.04765	(85041606)	TRS	2500.00	80.00	32.82692	(85031321)
TRS	3000.00	80.00	26.68477	(85031321)	TRS	3500.00	80.00	23.81396c	(85081724)
TRS	4000.00	80.00	21.12322c	(85081724)	TRS	4500.00	80.00	18.64016c	(85081724)
TRS	5000.00	80.00	16.47163c	(85081724)	TRS	686.00	90.00	129.68172	(85070721)
TRS	1100.00	90.00	115.90359	(85042421)	TRS	1500.00	90.00	58.00505	(85042421)
TRS	2000.00	90.00	46.65062	(85101106)	TRS	2500.00	90.00	37.02253	(85080203)
TRS	3000.00	90.00	43.47100	(85080203)	TRS	3500.00	90.00	45.37477	(85080203)
TRS	4000.00	90.00	44.80078	(85080203)	TRS	4500.00	90.00	43.01839	(85080203)
TRS	5000.00	90.00	40.72184	(85080203)	TRS	533.00	100.00	171.53687	(85012306)
TRS	700.00	100.00	125.18298	(85110606)	TRS	1100.00	100.00	106.21258	(85042906)
TRS	1500.00	100.00	112.42068	(85032306)	TRS	2000.00	100.00	61.41675	(85032306)
TRS	2500.00	100.00	50.59874	(85092624)	TRS	3000.00	100.00	44.61305	(85110203)
TRS	3500.00	100.00	38.80270	(85110203)	TRS	4000.00	100.00	33.25686	(85110203)
TRS	4500.00	100.00	28.49883	(85110203)	TRS	5000.00	100.00	24.55389	(85110203)
TRS	457.00	110.00	166.35834c	(85053103)	TRS	700.00	110.00	135.33783	(85012506)
TRS	1100.00	110.00	99.94883	(85012306)	TRS	1500.00	110.00	63.90667	(85041624)
TRS	2000.00	110.00	58.66106	(85110606)	TRS	2500.00	110.00	49.04034	(85110606)
TRS	3000.00	110.00	37.26075	(85070206)	TRS	3500.00	110.00	35.43799	(85070206)
TRS	4000.00	110.00	32.71319	(85070206)	TRS	4500.00	110.00	29.83237	(85070206)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	27.09606	(85070206)	TRS	457.00	120.00	146.01674	(85072409)
TRS	700.00	120.00	114.40234c	(85010806)	TRS	1100.00	120.00	105.83197	(85041706)
TRS	1500.00	120.00	68.79752	(85070906)	TRS	2000.00	120.00	56.55322	(85012506)
TRS	2500.00	120.00	48.50803	(85040724)	TRS	3000.00	120.00	47.89363	(85040724)
TRS	3500.00	120.00	43.84652	(85040724)	TRS	4000.00	120.00	38.84497	(85040724)
TRS	4500.00	120.00	33.98018	(85040724)	TRS	5000.00	120.00	29.64170	(85040724)
TRS	457.00	130.00	144.13564	(85120212)	TRS	700.00	130.00	114.79559	(85072409)
TRS	1100.00	130.00	79.39026	(85040209)	TRS	1500.00	130.00	70.52956c	(85122124)
TRS	2000.00	130.00	56.32592c	(85010806)	TRS	2500.00	130.00	43.09047	(85040206)
TRS	3000.00	130.00	41.81466	(85040206)	TRS	3500.00	130.00	39.65483c	(85053103)
TRS	4000.00	130.00	38.85519c	(85053103)	TRS	4500.00	130.00	36.61894c	(85053103)
TRS	5000.00	130.00	33.84335c	(85053103)	TRS	457.00	140.00	164.78737	(85010524)
TRS	700.00	140.00	115.73883	(85120212)	TRS	1100.00	140.00	87.56188	(85020721)
TRS	1500.00	140.00	56.45438	(85091306)	TRS	2000.00	140.00	33.78102	(85122521)
TRS	2500.00	140.00	33.31313	(85122121)	TRS	3000.00	140.00	30.22355	(85122121)
TRS	3500.00	140.00	26.32876	(85122121)	TRS	4000.00	140.00	24.84544	(85070903)
TRS	4500.00	140.00	23.36041	(85070903)	TRS	5000.00	140.00	21.57641	(85070903)
TRS	457.00	150.00	125.39032	(85011918)	TRS	700.00	150.00	122.98606	(85031715)
TRS	1100.00	150.00	82.58314	(85080209)	TRS	1500.00	150.00	73.54223	(85071924)
TRS	2000.00	150.00	55.56570	(85071924)	TRS	2500.00	150.00	38.61664	(85101218)
TRS	3000.00	150.00	30.70181c	(85032206)	TRS	3500.00	150.00	27.05055c	(85032206)
TRS	4000.00	150.00	23.14188c	(85032206)	TRS	4500.00	150.00	19.63271c	(85032206)
TRS	5000.00	150.00	16.67092c	(85032206)	TRS	488.00	160.00	141.46458	(85030918)
TRS	700.00	160.00	111.86306	(85040809)	TRS	1100.00	160.00	72.39633	(85011918)
TRS	1500.00	160.00	62.41739	(85031715)	TRS	2000.00	160.00	52.38280	(85031715)
TRS	2500.00	160.00	41.91982	(85031715)	TRS	3000.00	160.00	35.38717	(85080503)
TRS	3500.00	160.00	31.74980	(85010524)	TRS	4000.00	160.00	31.55656	(85010524)
TRS	4500.00	160.00	30.62808	(85010524)	TRS	5000.00	160.00	29.34981	(85010524)
TRS	533.00	170.00	167.14333	(85100606)	TRS	700.00	170.00	105.72810	(85110806)
TRS	1100.00	170.00	76.87623c	(85123009)	TRS	1500.00	170.00	57.95984	(85121521)
TRS	2000.00	170.00	50.34727	(85121521)	TRS	2500.00	170.00	38.99908	(85121521)
TRS	3000.00	170.00	29.85109	(85121521)	TRS	3500.00	170.00	26.19694	(85121903)
TRS	4000.00	170.00	23.55705	(85121903)	TRS	4500.00	170.00	21.28921	(85121903)
TRS	5000.00	170.00	20.34268	(85091303)	TRS	610.00	180.00	122.46601	(85101709)
TRS	700.00	180.00	103.62273	(85101709)	TRS	1100.00	180.00	70.51099	(85091718)
TRS	1500.00	180.00	70.18048	(85120324)	TRS	2000.00	180.00	57.83899	(85120324)
TRS	2500.00	180.00	50.07704	(85100606)	TRS	3000.00	180.00	49.05370	(85100606)
TRS	3500.00	180.00	46.32077	(85100606)	TRS	4000.00	180.00	43.06720	(85100606)
TRS	4500.00	180.00	39.80353	(85100606)	TRS	5000.00	180.00	36.73546	(85100606)
TRS	750.00	190.00	93.06066	(85121909)	TRS	1100.00	190.00	73.13081	(85121909)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	59.82236	(85101709)	TRS	2000.00	190.00	53.09637	(85101709)
TRS	2500.00	190.00	46.63261	(85101709)	TRS	3000.00	190.00	41.28351	(85101709)
TRS	3500.00	190.00	36.94530	(85101709)	TRS	4000.00	190.00	33.40375	(85101709)
TRS	4500.00	190.00	30.47611	(85101709)	TRS	5000.00	190.00	28.02329	(85101709)
TRS	1829.00	200.00	54.91560c	(85111206)	TRS	2000.00	200.00	50.80165c	(85111206)
TRS	2500.00	200.00	40.81610c	(85111206)	TRS	3000.00	200.00	33.45546c	(85111206)
TRS	3500.00	200.00	27.96071c	(85111206)	TRS	4000.00	200.00	23.75483c	(85111206)
TRS	4500.00	200.00	20.55581c	(85041103)	TRS	5000.00	200.00	19.16905c	(85041103)
TRS	1829.00	210.00	40.28018c	(85092506)	TRS	2000.00	210.00	37.73259	(85071921)
TRS	2500.00	210.00	33.52651	(85071921)	TRS	3000.00	210.00	30.05076	(85071921)
TRS	3500.00	210.00	27.15263	(85071921)	TRS	4000.00	210.00	24.70850	(85071921)
TRS	4500.00	210.00	22.62451	(85071921)	TRS	5000.00	210.00	20.82983	(85071921)
TRS	1981.00	220.00	41.18729	(85111103)	TRS	2000.00	220.00	40.86949	(85111103)
TRS	2500.00	220.00	33.63471	(85111103)	TRS	3000.00	220.00	28.19681	(85111103)
TRS	3500.00	220.00	24.02482	(85111103)	TRS	4000.00	220.00	20.75719	(85111103)
TRS	4500.00	220.00	18.54020	(85092724)	TRS	5000.00	220.00	17.32240	(85092724)
TRS	2134.00	230.00	32.21735	(85111409)	TRS	2500.00	230.00	27.59241	(85111409)
TRS	3000.00	230.00	22.77700	(85111409)	TRS	3500.00	230.00	19.56386	(85031606)
TRS	4000.00	230.00	17.10182	(85031606)	TRS	4500.00	230.00	15.14839	(85031606)
TRS	5000.00	230.00	13.57584	(85031606)	TRS	2438.00	240.00	26.32139	(85020403)
TRS	2500.00	240.00	25.56317	(85020403)	TRS	3000.00	240.00	20.50780	(85020403)
TRS	3500.00	240.00	16.84985	(85020403)	TRS	4000.00	240.00	14.11900	(85020403)
TRS	4500.00	240.00	12.34118	(85101806)	TRS	5000.00	240.00	11.23524	(85101806)
TRS	2896.00	250.00	26.43156	(85041721)	TRS	3000.00	250.00	26.03079	(85041721)
TRS	3500.00	250.00	24.07644	(85041721)	TRS	4000.00	250.00	22.20611	(85041721)
TRS	4500.00	250.00	20.46737	(85041721)	TRS	5000.00	250.00	18.90380	(85041721)
TRS	3048.00	260.00	55.02531	(85081503)	TRS	3500.00	260.00	45.55941	(85081503)
TRS	4000.00	260.00	37.25448	(85081503)	TRS	4500.00	260.00	30.82773	(85081503)
TRS	5000.00	260.00	25.83325	(85081503)	TRS	3658.00	270.00	30.55561	(85052621)
TRS	4000.00	270.00	28.68777	(85052621)	TRS	4500.00	270.00	25.97321	(85052621)
TRS	5000.00	270.00	23.45653	(85052621)	TRS	3962.00	280.00	26.23702	(85022409)
TRS	4000.00	280.00	25.90379	(85022409)	TRS	4500.00	280.00	22.04529	(85022409)
TRS	5000.00	280.00	19.00610	(85022409)	TRS	4572.00	290.00	27.37729	(85083003)
TRS	5000.00	290.00	25.22629	(85083003)	TRS	5182.00	300.00	16.61962	(85072103)
TRS	4801.00	310.00	19.96667	(85062621)	TRS	5000.00	310.00	18.87275	(85062621)
TRS	4875.00	320.00	23.55304	(85020106)	TRS	5000.00	320.00	22.43425	(85020106)
TRS	6000.00	330.00	18.04263	(85020109)	TRS	5500.00	340.00	17.41034c	(85082421)
TRS	5250.00	350.00	23.05564	(85113006)	TRS	5125.00	360.00	21.40436	(85052021)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	66.65688	(85061301)	TRS	4500.00	20.00	54.94782	(85071321)
TRS	5000.00	20.00	48.22322	(85071321)	TRS	2500.00	30.00	86.44097	(85082119)
TRS	3000.00	30.00	68.22401	(85082119)	TRS	3500.00	30.00	57.23050	(85110724)
TRS	4000.00	30.00	51.28218	(85110724)	TRS	4500.00	30.00	46.36717	(85110724)
TRS	5000.00	30.00	42.24141	(85110724)	TRS	2500.00	40.00	82.30550	(85012008)
TRS	3000.00	40.00	77.68712	(85012008)	TRS	3500.00	40.00	71.20033	(85012008)
TRS	4000.00	40.00	64.72586	(85012008)	TRS	4500.00	40.00	58.88107	(85012008)
TRS	5000.00	40.00	53.77443	(85012008)	TRS	1500.00	50.00	82.42570	(85022610)
TRS	2000.00	50.00	62.58385	(85022610)	TRS	2500.00	50.00	48.93497	(85022610)
TRS	3000.00	50.00	44.36314	(85100403)	TRS	3500.00	50.00	42.11911	(85100403)
TRS	4000.00	50.00	39.95958	(85100403)	TRS	4500.00	50.00	37.93279	(85100403)
TRS	5000.00	50.00	35.93468	(85100403)	TRS	1500.00	60.00	96.61991	(85081818)
TRS	2000.00	60.00	71.05521	(85081818)	TRS	2500.00	60.00	53.63876	(85081818)
TRS	3000.00	60.00	41.91138	(85081818)	TRS	3500.00	60.00	33.73154	(85081818)
TRS	4000.00	60.00	29.44715	(85060723)	TRS	4500.00	60.00	26.67719	(85060723)
TRS	5000.00	60.00	24.28691	(85060723)	TRS	1500.00	70.00	114.91537	(85052104)
TRS	2000.00	70.00	80.16873	(85071420)	TRS	2500.00	70.00	71.67626	(85071420)
TRS	3000.00	70.00	62.42736	(85071420)	TRS	3500.00	70.00	54.25212	(85071420)
TRS	4000.00	70.00	47.37858	(85071420)	TRS	4500.00	70.00	41.67076	(85071420)
TRS	5000.00	70.00	36.92792	(85071420)	TRS	838.00	80.00	252.01718	(85060408)
TRS	1100.00	80.00	205.29280	(85070308)	TRS	1500.00	80.00	153.19052	(85070208)
TRS	2000.00	80.00	109.93681	(85071317)	TRS	2500.00	80.00	84.57629	(85082517)
TRS	3000.00	80.00	78.90421	(85081722)	TRS	3500.00	80.00	71.44187	(85081722)
TRS	4000.00	80.00	63.36966	(85081722)	TRS	4500.00	80.00	55.92048	(85081722)
TRS	5000.00	80.00	49.41489	(85081722)	TRS	686.00	90.00	260.67090	(85070719)
TRS	1100.00	90.00	195.62642	(85082108)	TRS	1500.00	90.00	154.93217	(85092217)
TRS	2000.00	90.00	129.03131	(85082405)	TRS	2500.00	90.00	110.91812	(85061723)
TRS	3000.00	90.00	99.12526	(85061723)	TRS	3500.00	90.00	86.52285	(85061802)
TRS	4000.00	90.00	79.85346	(85061802)	TRS	4500.00	90.00	72.34605	(85061802)
TRS	5000.00	90.00	65.09836	(85061802)	TRS	533.00	100.00	274.85190	(85101113)
TRS	700.00	100.00	247.72646	(85081809)	TRS	1100.00	100.00	182.51118	(85011808)
TRS	1500.00	100.00	139.41397	(85011808)	TRS	2000.00	100.00	128.55977	(85091001)
TRS	2500.00	100.00	111.05932	(85092623)	TRS	3000.00	100.00	86.77330	(85092623)
TRS	3500.00	100.00	70.08662	(85120208)	TRS	4000.00	100.00	64.47472	(85120208)
TRS	4500.00	100.00	59.34624	(85120208)	TRS	5000.00	100.00	54.79415	(85120208)
TRS	457.00	110.00	280.76556	(85050724)	TRS	700.00	110.00	246.90364	(85071915)
TRS	1100.00	110.00	192.35289	(85101517)	TRS	1500.00	110.00	147.75766	(85091008)
TRS	2000.00	110.00	127.83940	(85070401)	TRS	2500.00	110.00	105.41768	(85120905)
TRS	3000.00	110.00	86.43016	(85120905)	TRS	3500.00	110.00	68.87218	(85070206)
TRS	4000.00	110.00	62.75403	(85070206)	TRS	4500.00	110.00	56.60922	(85070206)

MODELOPTs: CONC

RURAL FLAT

DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	50.94228	(85070206)	TRS	457.00	120.00	275.22818	(85070903)
TRS	700.00	120.00	248.09714	(85051508)	TRS	1100.00	120.00	193.69502	(85112817)
TRS	1500.00	120.00	157.96979	(85082407)	TRS	2000.00	120.00	114.27398	(85070724)
TRS	2500.00	120.00	78.19357	(85051701)	TRS	3000.00	120.00	68.51530	(85012418)
TRS	3500.00	120.00	60.34703	(85070902)	TRS	4000.00	120.00	59.09439	(85070902)
TRS	4500.00	120.00	55.63564	(85070902)	TRS	5000.00	120.00	53.51190	(85053104)
TRS	457.00	130.00	273.06467	(85092718)	TRS	700.00	130.00	238.35870	(85112818)
TRS	1100.00	130.00	182.44823	(85082519)	TRS	1500.00	130.00	133.99236	(85070820)
TRS	2000.00	130.00	110.02460	(85053007)	TRS	2500.00	130.00	90.26820	(85050724)
TRS	3000.00	130.00	93.15831	(85050724)	TRS	3500.00	130.00	85.45786	(85050724)
TRS	4000.00	130.00	74.71818	(85050724)	TRS	4500.00	130.00	64.14892	(85050724)
TRS	5000.00	130.00	54.82113	(85050724)	TRS	457.00	140.00	236.75450	(85080209)
TRS	700.00	140.00	227.41743	(85060219)	TRS	1100.00	140.00	183.93578	(85062921)
TRS	1500.00	140.00	126.04961	(85112818)	TRS	2000.00	140.00	100.72105	(85112818)
TRS	2500.00	140.00	85.61645	(85122608)	TRS	3000.00	140.00	86.45412	(85122608)
TRS	3500.00	140.00	78.64571	(85122608)	TRS	4000.00	140.00	74.53630	(85070903)
TRS	4500.00	140.00	70.08123	(85070903)	TRS	5000.00	140.00	64.72920	(85070903)
TRS	457.00	150.00	254.07079	(85100617)	TRS	700.00	150.00	234.10062	(85101209)
TRS	1100.00	150.00	173.21155	(85070723)	TRS	1500.00	150.00	146.79994	(85071922)
TRS	2000.00	150.00	106.37629	(85082002)	TRS	2500.00	150.00	96.54240	(85032206)
TRS	3000.00	150.00	92.10545	(85032206)	TRS	3500.00	150.00	81.15166	(85032206)
TRS	4000.00	150.00	69.42565	(85032206)	TRS	4500.00	150.00	58.89813	(85032206)
TRS	5000.00	150.00	50.01277	(85032206)	TRS	488.00	160.00	253.24472	(85030918)
TRS	700.00	160.00	215.30635	(85112315)	TRS	1100.00	160.00	165.70453	(85112317)
TRS	1500.00	160.00	153.26309	(85070806)	TRS	2000.00	160.00	122.12106	(85070806)
TRS	2500.00	160.00	104.19114	(85012908)	TRS	3000.00	160.00	88.80888	(85012908)
TRS	3500.00	160.00	75.67218	(85012908)	TRS	4000.00	160.00	65.03597	(85012908)
TRS	4500.00	160.00	56.50209	(85012908)	TRS	5000.00	160.00	49.62833	(85012908)
TRS	533.00	170.00	243.49063	(85052519)	TRS	700.00	170.00	231.14961	(85042318)
TRS	1100.00	170.00	155.42400	(85020306)	TRS	1500.00	170.00	117.51909	(85020722)
TRS	2000.00	170.00	106.24924	(85011303)	TRS	2500.00	170.00	97.85275	(85011303)
TRS	3000.00	170.00	82.88751	(85011303)	TRS	3500.00	170.00	68.66530	(85011303)
TRS	4000.00	170.00	64.21879	(85021623)	TRS	4500.00	170.00	61.73395	(85021623)
TRS	5000.00	170.00	58.61581	(85021623)	TRS	610.00	180.00	367.39804	(85101707)
TRS	700.00	180.00	310.86819	(85101707)	TRS	1100.00	180.00	143.07654	(85091306)
TRS	1500.00	180.00	115.49055	(85100702)	TRS	2000.00	180.00	99.51472	(85031822)
TRS	2500.00	180.00	97.23939	(85031822)	TRS	3000.00	180.00	88.53246	(85031822)
TRS	3500.00	180.00	78.71689	(85031822)	TRS	4000.00	180.00	69.57368	(85031822)
TRS	4500.00	180.00	61.56871	(85031822)	TRS	5000.00	180.00	54.71318	(85031822)
TRS	750.00	190.00	212.26440	(85101318)	TRS	1100.00	190.00	184.96294	(85101707)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	179.46709	(85101707)	TRS	2000.00	190.00	159.28911	(85101707)
TRS	2500.00	190.00	139.89783	(85101707)	TRS	3000.00	190.00	123.85052	(85101707)
TRS	3500.00	190.00	110.83591	(85101707)	TRS	4000.00	190.00	100.21124	(85101707)
TRS	4500.00	190.00	91.42834	(85101707)	TRS	5000.00	190.00	84.06987	(85101707)
TRS	1829.00	200.00	117.90058	(85111205)	TRS	2000.00	200.00	108.41100	(85111205)
TRS	2500.00	200.00	85.88083	(85111205)	TRS	3000.00	200.00	76.12156	(85041103)
TRS	3500.00	200.00	71.10426	(85041103)	TRS	4000.00	200.00	66.21902	(85041103)
TRS	4500.00	200.00	61.66742	(85041103)	TRS	5000.00	200.00	57.50715	(85041103)
TRS	1829.00	210.00	118.09615	(85071921)	TRS	2000.00	210.00	113.19778	(85071921)
TRS	2500.00	210.00	100.57953	(85071921)	TRS	3000.00	210.00	90.15228	(85071921)
TRS	3500.00	210.00	81.45790	(85071921)	TRS	4000.00	210.00	74.12550	(85071921)
TRS	4500.00	210.00	67.87354	(85071921)	TRS	5000.00	210.00	62.48949	(85071921)
TRS	1981.00	220.00	80.16034	(85062106)	TRS	2000.00	220.00	79.63482	(85062106)
TRS	2500.00	220.00	67.36677	(85062106)	TRS	3000.00	220.00	57.80134	(85062106)
TRS	3500.00	220.00	50.38409	(85062106)	TRS	4000.00	220.00	44.54572	(85062106)
TRS	4500.00	220.00	39.87064	(85062106)	TRS	5000.00	220.00	36.06167	(85062106)
TRS	2134.00	230.00	67.98013	(85111412)	TRS	2500.00	230.00	58.52408	(85111412)
TRS	3000.00	230.00	48.61027	(85111412)	TRS	3500.00	230.00	41.12902	(85111412)
TRS	4000.00	230.00	35.34351	(85111412)	TRS	4500.00	230.00	31.14431	(85111908)
TRS	5000.00	230.00	28.37543	(85111908)	TRS	2438.00	240.00	53.53742	(85120514)
TRS	2500.00	240.00	52.48203	(85120514)	TRS	3000.00	240.00	44.88990	(85120514)
TRS	3500.00	240.00	38.76471	(85120514)	TRS	4000.00	240.00	34.10040	(85111202)
TRS	4500.00	240.00	33.00497	(85111202)	TRS	5000.00	240.00	31.76616	(85111202)
TRS	2896.00	250.00	60.86093	(85120508)	TRS	3000.00	250.00	58.06145	(85120508)
TRS	3500.00	250.00	47.13642	(85120508)	TRS	4000.00	250.00	39.26433	(85120508)
TRS	4500.00	250.00	33.39939	(85120508)	TRS	5000.00	250.00	29.05086	(85062605)
TRS	3048.00	260.00	82.53797	(85081501)	TRS	3500.00	260.00	69.52214	(85071120)
TRS	4000.00	260.00	60.95061	(85071120)	TRS	4500.00	260.00	53.71400	(85071120)
TRS	5000.00	260.00	48.75257	(85081323)	TRS	3658.00	270.00	81.21529	(85082006)
TRS	4000.00	270.00	76.20641	(85082006)	TRS	4500.00	270.00	68.79391	(85082006)
TRS	5000.00	270.00	61.86077	(85082006)	TRS	3962.00	280.00	70.12414	(85092223)
TRS	4000.00	280.00	69.21468	(85092223)	TRS	4500.00	280.00	58.27575	(85092223)
TRS	5000.00	280.00	56.13977	(85031024)	TRS	4572.00	290.00	73.40467	(85072607)
TRS	5000.00	290.00	67.50205	(85072607)	TRS	5182.00	300.00	49.28347	(85072101)
TRS	4801.00	310.00	49.59003	(85010118)	TRS	5000.00	310.00	46.95464	(85010118)
TRS	4875.00	320.00	66.82816	(85081804)	TRS	5000.00	320.00	65.46983	(85081804)
TRS	6000.00	330.00	42.27502	(85053002)	TRS	5500.00	340.00	46.23510	(85100401)
TRS	5250.00	350.00	47.63626	(85112803)	TRS	5125.00	360.00	64.21308	(85052021)

MODELPTS: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS 6.82810 AT (	524.90, -92.55,	0.00, 0.00)	DP NA
	2ND HIGHEST VALUE IS 6.01346 AT (	686.00, 0.00,	0.00, 0.00)	DP NA
	3RD HIGHEST VALUE IS 6.00759 AT (	429.44, -156.30,	0.00, 0.00)	DP NA
	4TH HIGHEST VALUE IS 5.44181 AT (	689.37, -121.55,	0.00, 0.00)	DP NA
	5TH HIGHEST VALUE IS 4.89260 AT (	228.50, -395.77,	0.00, 0.00)	DP NA
	6TH HIGHEST VALUE IS 4.79182 AT (	350.08, -293.75,	0.00, 0.00)	DP NA
	7TH HIGHEST VALUE IS 4.72430 AT (	293.75, -350.08,	0.00, 0.00)	DP NA
	8TH HIGHEST VALUE IS 4.71764 AT (	395.77, -228.50,	0.00, 0.00)	DP NA
	9TH HIGHEST VALUE IS 4.71351 AT (	825.27, 145.52,	0.00, 0.00)	DP NA
	10TH HIGHEST VALUE IS 4.70319 AT (	657.78, -239.41,	0.00, 0.00)	DP NA

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	69.06979c ON 85040224: AT (429.44, -156.30, 0.00, 0.00)	DP	NA
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*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTS: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	--------------	-----------------	---------------------------------	---------	-----------------

L	HIGH 1ST HIGH VALUE IS	116.31580c	ON 85053108: AT (429.44, -156.30, 0.00, 0.00)	DP	NA
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** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	171.53687	ON 85012306: AT (524.90, -92.55, 0.00, 0.00)	DP	NA
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** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 367.39804	ON 85101707: AT (	0.00, -610.00, 0.00,	0.00) DP	NA

- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC RURAL FLAT DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
Total of 1 Warning Message(s)
A Total of 1822 Informational Message(s)

Total of 1822 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
SO W320 27 PPARAM :Input Parameter May Be Out-of-Range for Parameter QS

*** ISCST3 Finishes Successfully ***

STARTING
 CO TITLEONE 1986 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 TITLETWO MAXIMUM FUTURE CO EMISSION RATE
 MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 BLEACH PLANT BYPASS STACK
 CO LOCATION BLCHSCRB POINT 109.3 141.5 .0
 SO LOCATION TRS POINT 0.0 0.0 .0

Source Parameter Cards:

** POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 ** AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22
 SRCPARAM TRS 0.00 76.2 533.2 32.03 0.94

BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

CO SRCGROUP ALL
 SO FINISHED

STARTING

** RECEPTOR ORIGIN IS TRS INCINERATOR STACK
 CO DISCPOLR TRS 5000.00 10.00
 DISCPOLR TRS 4500.00 20.00
 RE DISCPOLR TRS 5000.00 20.00
 RE DISCPOLR TRS 2500.00 30.00
 DISCPOLR TRS 3000.00 30.00
 DISCPOLR TRS 3500.00 30.00
 RE DISCPOLR TRS 4000.00 30.00
 DISCPOLR TRS 4500.00 30.00
 DISCPOLR TRS 5000.00 30.00
 RE DISCPOLR TRS 2500.00 40.00

	DISCPOLR TRS	3000.00	40.00
	DISCPOLR TRS	3500.00	40.00
RE	DISCPOLR TRS	4000.00	40.00
	DISCPOLR TRS	4500.00	40.00
	DISCPOLR TRS	5000.00	40.00
RE	DISCPOLR TRS	1500.00	50.00
RE	DISCPOLR TRS	2000.00	50.00
	DISCPOLR TRS	2500.00	50.00
RE	DISCPOLR TRS	3000.00	50.00
RE	DISCPOLR TRS	3500.00	50.00
	DISCPOLR TRS	4000.00	50.00
	DISCPOLR TRS	4500.00	50.00
RE	DISCPOLR TRS	5000.00	50.00
	DISCPOLR TRS	1500.00	60.00
	DISCPOLR TRS	2000.00	60.00
RE	DISCPOLR TRS	2500.00	60.00
RE	DISCPOLR TRS	3000.00	60.00
	DISCPOLR TRS	3500.00	60.00
	DISCPOLR TRS	4000.00	60.00
RE	DISCPOLR TRS	4500.00	60.00
	DISCPOLR TRS	5000.00	60.00
	DISCPOLR TRS	1500.00	70.00
RE	DISCPOLR TRS	2000.00	70.00
RE	DISCPOLR TRS	2500.00	70.00
	DISCPOLR TRS	3000.00	70.00
RE	DISCPOLR TRS	3500.00	70.00
RE	DISCPOLR TRS	4000.00	70.00
	DISCPOLR TRS	4500.00	70.00
	DISCPOLR TRS	5000.00	70.00
RE	DISCPOLR TRS	838.00	80.00
	DISCPOLR TRS	1100.00	80.00
	DISCPOLR TRS	1500.00	80.00
RE	DISCPOLR TRS	2000.00	80.00
RE	DISCPOLR TRS	2500.00	80.00
	DISCPOLR TRS	3000.00	80.00
RE	DISCPOLR TRS	3500.00	80.00
RE	DISCPOLR TRS	4000.00	80.00
	DISCPOLR TRS	4500.00	80.00
	DISCPOLR TRS	5000.00	80.00
RE	DISCPOLR TRS	686.00	90.00
	DISCPOLR TRS	1100.00	90.00
	DISCPOLR TRS	1500.00	90.00
RE	DISCPOLR TRS	2000.00	90.00
RE	DISCPOLR TRS	2500.00	90.00
	DISCPOLR TRS	3000.00	90.00
RE	DISCPOLR TRS	3500.00	90.00
RE	DISCPOLR TRS	4000.00	90.00
	DISCPOLR TRS	4500.00	90.00
	DISCPOLR TRS	5000.00	90.00
RE	DISCPOLR TRS	533.00	100.00
RE	DISCPOLR TRS	700.00	100.00
	DISCPOLR TRS	1100.00	100.00
RE	DISCPOLR TRS	1500.00	100.00
RE	DISCPOLR TRS	2000.00	100.00
	DISCPOLR TRS	2500.00	100.00
	DISCPOLR TRS	3000.00	100.00
RE	DISCPOLR TRS	3500.00	100.00
	DISCPOLR TRS	4000.00	100.00
	DISCPOLR TRS	4500.00	100.00
RE	DISCPOLR TRS	5000.00	100.00

DISCPOLR TRS	457.00	110.00
DISCPOLR TRS	700.00	110.00
RE DISCPOLR TRS	1100.00	110.00
DISCPOLR TRS	1500.00	110.00
DISCPOLR TRS	2000.00	110.00
RE DISCPOLR TRS	2500.00	110.00
RE DISCPOLR TRS	3000.00	110.00
DISCPOLR TRS	3500.00	110.00
RE DISCPOLR TRS	4000.00	110.00
RE DISCPOLR TRS	4500.00	110.00
DISCPOLR TRS	5000.00	110.00
DISCPOLR TRS	457.00	120.00
RE DISCPOLR TRS	700.00	120.00
DISCPOLR TRS	1100.00	120.00
DISCPOLR TRS	1500.00	120.00
RE DISCPOLR TRS	2000.00	120.00
RE DISCPOLR TRS	2500.00	120.00
DISCPOLR TRS	3000.00	120.00
RE DISCPOLR TRS	3500.00	120.00
RE DISCPOLR TRS	4000.00	120.00
DISCPOLR TRS	4500.00	120.00
DISCPOLR TRS	5000.00	120.00
RE DISCPOLR TRS	457.00	130.00
DISCPOLR TRS	700.00	130.00
DISCPOLR TRS	1100.00	130.00
RE DISCPOLR TRS	1500.00	130.00
RE DISCPOLR TRS	2000.00	130.00
DISCPOLR TRS	2500.00	130.00
DISCPOLR TRS	3000.00	130.00
RE DISCPOLR TRS	3500.00	130.00
DISCPOLR TRS	4000.00	130.00
DISCPOLR TRS	4500.00	130.00
RE DISCPOLR TRS	5000.00	130.00
RE DISCPOLR TRS	457.00	140.00
DISCPOLR TRS	700.00	140.00
RE DISCPOLR TRS	1100.00	140.00
RE DISCPOLR TRS	1500.00	140.00
DISCPOLR TRS	2000.00	140.00
DISCPOLR TRS	2500.00	140.00
RE DISCPOLR TRS	3000.00	140.00
DISCPOLR TRS	3500.00	140.00
DISCPOLR TRS	4000.00	140.00
RE DISCPOLR TRS	4500.00	140.00
RE DISCPOLR TRS	5000.00	140.00
DISCPOLR TRS	457.00	150.00
RE DISCPOLR TRS	700.00	150.00
RE DISCPOLR TRS	1100.00	150.00
DISCPOLR TRS	1500.00	150.00
DISCPOLR TRS	2000.00	150.00
RE DISCPOLR TRS	2500.00	150.00
DISCPOLR TRS	3000.00	150.00
DISCPOLR TRS	3500.00	150.00
RE DISCPOLR TRS	4000.00	150.00
RE DISCPOLR TRS	4500.00	150.00
DISCPOLR TRS	5000.00	150.00
DISCPOLR TRS	488.00	160.00
RE DISCPOLR TRS	700.00	160.00
DISCPOLR TRS	1100.00	160.00
DISCPOLR TRS	1500.00	160.00
RE DISCPOLR TRS	2000.00	160.00

	DISCPOLR TRS	2500.00	160.00
RE	DISCPOLR TRS	3000.00	160.00
RE	DISCPOLR TRS	3500.00	160.00
	DISCPOLR TRS	4000.00	160.00
	DISCPOLR TRS	4500.00	160.00
RE	DISCPOLR TRS	5000.00	160.00
RE	DISCPOLR TRS	533.00	170.00
	DISCPOLR TRS	700.00	170.00
RE	DISCPOLR TRS	1100.00	170.00
RE	DISCPOLR TRS	1500.00	170.00
	DISCPOLR TRS	2000.00	170.00
	DISCPOLR TRS	2500.00	170.00
RE	DISCPOLR TRS	3000.00	170.00
	DISCPOLR TRS	3500.00	170.00
	DISCPOLR TRS	4000.00	170.00
RE	DISCPOLR TRS	4500.00	170.00
RE	DISCPOLR TRS	5000.00	170.00
	DISCPOLR TRS	610.00	180.00
RE	DISCPOLR TRS	700.00	180.00
RE	DISCPOLR TRS	1100.00	180.00
	DISCPOLR TRS	1500.00	180.00
	DISCPOLR TRS	2000.00	180.00
RE	DISCPOLR TRS	2500.00	180.00
	DISCPOLR TRS	3000.00	180.00
	DISCPOLR TRS	3500.00	180.00
RE	DISCPOLR TRS	4000.00	180.00
RE	DISCPOLR TRS	4500.00	180.00
	DISCPOLR TRS	5000.00	180.00
RE	DISCPOLR TRS	750.00	190.00
RE	DISCPOLR TRS	1100.00	190.00
	DISCPOLR TRS	1500.00	190.00
	DISCPOLR TRS	2000.00	190.00
RE	DISCPOLR TRS	2500.00	190.00
RE	DISCPOLR TRS	3000.00	190.00
	DISCPOLR TRS	3500.00	190.00
RE	DISCPOLR TRS	4000.00	190.00
RE	DISCPOLR TRS	4500.00	190.00
	DISCPOLR TRS	5000.00	190.00
	DISCPOLR TRS	1829.00	200.00
RE	DISCPOLR TRS	2000.00	200.00
	DISCPOLR TRS	2500.00	200.00
	DISCPOLR TRS	3000.00	200.00
RE	DISCPOLR TRS	3500.00	200.00
RE	DISCPOLR TRS	4000.00	200.00
	DISCPOLR TRS	4500.00	200.00
RE	DISCPOLR TRS	5000.00	200.00
RE	DISCPOLR TRS	1829.00	210.00
	DISCPOLR TRS	2000.00	210.00
	DISCPOLR TRS	2500.00	210.00
RE	DISCPOLR TRS	3000.00	210.00
	DISCPOLR TRS	3500.00	210.00
	DISCPOLR TRS	4000.00	210.00
RE	DISCPOLR TRS	4500.00	210.00
RE	DISCPOLR TRS	5000.00	210.00
	DISCPOLR TRS	1981.00	220.00
RE	DISCPOLR TRS	2000.00	220.00
RE	DISCPOLR TRS	2500.00	220.00
	DISCPOLR TRS	3000.00	220.00
	DISCPOLR TRS	3500.00	220.00
RE	DISCPOLR TRS	4000.00	220.00

DISCPOLR TRS	4500.00	220.00
DISCPOLR TRS	5000.00	220.00
RE DISCPOLR TRS	2134.00	230.00
DISCPOLR TRS	2500.00	230.00
DISCPOLR TRS	3000.00	230.00
RE DISCPOLR TRS	3500.00	230.00
RE DISCPOLR TRS	4000.00	230.00
DISCPOLR TRS	4500.00	230.00
RE DISCPOLR TRS	5000.00	230.00
RE DISCPOLR TRS	2438.00	240.00
DISCPOLR TRS	2500.00	240.00
DISCPOLR TRS	3000.00	240.00
RE DISCPOLR TRS	3500.00	240.00
DISCPOLR TRS	4000.00	240.00
DISCPOLR TRS	4500.00	240.00
RE DISCPOLR TRS	5000.00	240.00
RE DISCPOLR TRS	2896.00	250.00
DISCPOLR TRS	3000.00	250.00
RE DISCPOLR TRS	3500.00	250.00
RE DISCPOLR TRS	4000.00	250.00
DISCPOLR TRS	4500.00	250.00
DISCPOLR TRS	5000.00	250.00
RE DISCPOLR TRS	3048.00	260.00
RE DISCPOLR TRS	3500.00	260.00
DISCPOLR TRS	4000.00	260.00
RE DISCPOLR TRS	4500.00	260.00
RE DISCPOLR TRS	5000.00	260.00
DISCPOLR TRS	3658.00	270.00
DISCPOLR TRS	4000.00	270.00
RE DISCPOLR TRS	4500.00	270.00
DISCPOLR TRS	5000.00	270.00
DISCPOLR TRS	3962.00	280.00
RE DISCPOLR TRS	4000.00	280.00
RE DISCPOLR TRS	4500.00	280.00
DISCPOLR TRS	5000.00	280.00
RE DISCPOLR TRS	4572.00	290.00
RE DISCPOLR TRS	5000.00	290.00
DISCPOLR TRS	5182.00	300.00
DISCPOLR TRS	4801.00	310.00
RE DISCPOLR TRS	5000.00	310.00
DISCPOLR TRS	4875.00	320.00
DISCPOLR TRS	5000.00	320.00
RE DISCPOLR TRS	6000.00	330.00
RE DISCPOLR TRS	5500.00	340.00
DISCPOLR TRS	5250.00	350.00
RE DISCPOLR TRS	5125.00	360.00

RE FINISHED

ME STARTING

ME INPUTFIL S:\MET\GNSPRL86.BIN UNFORM

ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1986 JACKSONVILLE

ME UAIRDATA 13861 1986 WAYCROSS

WINDCATS 1.50 3.10 5.10 8.20 10.80

FINISHED

STARTING

OU RECTABLE ALLAVE FIRST

FINISHED

*** Message Summary For ISC3 Model Setup ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

W320 27 PPARM :Input Parameter May Be Out-of-Range for Parameter QS

* SETUP Finishes Successfully ***

*** MODEL SETUP OPTIONS SUMMARY ***

**Simple Terrain Model is Selected

Model Is Setup For Calculation of Average CONCENTRATION Values.

-- SCAVENGING/DEPOSITION LOGIC --

Model Uses NO DRY DEPLETION. DDPLETE = F

Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

Model Uses RURAL Dispersion.

Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

Model Calculates 4 Short Term Average(s) of: 24-HR 8-HR 3-HR 1-HR
and Calculates PERIOD Averages

This Run Includes: 2 Source(s); 1 Source Group(s); and 236 Receptor(s)

The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNNING After the Setup Testing.

Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

Misc. Inputs: Anem. Hgt. (m) = 6.71 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.10000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

Input Runstream File: COCL2.I86

**Output Print File: COCL2.O86

MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE	
											SCALAR	VARY BY
BLCHSCRB	0	0.80000E+01	109.3	141.5	0.0	36.00	338.70	9.30	1.22	YES		
TRS	0	0.00000E+00	0.0	0.0	0.0	76.20	533.20	32.03	0.94	NO		

*** ISCST3 - VERSION 98356 ***

*** 1986 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK
*** MAXIMUM FUTURE CO EMISSION RATE

12/11/98 ***

01/28/99
11:34:40
PAGE 3
NOCMPL

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCR, TRS ,

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK				
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	5000.0,	10.0,	0.0,	0.0);	TRS	:	(	4500.0,	20.0,	0.0,	0.0);
TRS	:	(	5000.0,	20.0,	0.0,	0.0);	TRS	:	(	2500.0,	30.0,	0.0,	0.0);
TRS	:	(	3000.0,	30.0,	0.0,	0.0);	TRS	:	(	3500.0,	30.0,	0.0,	0.0);
TRS	:	(	4000.0,	30.0,	0.0,	0.0);	TRS	:	(	4500.0,	30.0,	0.0,	0.0);
TRS	:	(	5000.0,	30.0,	0.0,	0.0);	TRS	:	(	2500.0,	40.0,	0.0,	0.0);
TRS	:	(	3000.0,	40.0,	0.0,	0.0);	TRS	:	(	3500.0,	40.0,	0.0,	0.0);
TRS	:	(	4000.0,	40.0,	0.0,	0.0);	TRS	:	(	4500.0,	40.0,	0.0,	0.0);
TRS	:	(	5000.0,	40.0,	0.0,	0.0);	TRS	:	(	1500.0,	50.0,	0.0,	0.0);
TRS	:	(	2000.0,	50.0,	0.0,	0.0);	TRS	:	(	2500.0,	50.0,	0.0,	0.0);
TRS	:	(	3000.0,	50.0,	0.0,	0.0);	TRS	:	(	3500.0,	50.0,	0.0,	0.0);
TRS	:	(	4000.0,	50.0,	0.0,	0.0);	TRS	:	(	4500.0,	50.0,	0.0,	0.0);
TRS	:	(	5000.0,	50.0,	0.0,	0.0);	TRS	:	(	1500.0,	60.0,	0.0,	0.0);
TRS	:	(	2000.0,	60.0,	0.0,	0.0);	TRS	:	(	2500.0,	60.0,	0.0,	0.0);
TRS	:	(	3000.0,	60.0,	0.0,	0.0);	TRS	:	(	3500.0,	60.0,	0.0,	0.0);
TRS	:	(	4000.0,	60.0,	0.0,	0.0);	TRS	:	(	4500.0,	60.0,	0.0,	0.0);
TRS	:	(	5000.0,	60.0,	0.0,	0.0);	TRS	:	(	1500.0,	70.0,	0.0,	0.0);
TRS	:	(	2000.0,	70.0,	0.0,	0.0);	TRS	:	(	2500.0,	70.0,	0.0,	0.0);
TRS	:	(	3000.0,	70.0,	0.0,	0.0);	TRS	:	(	3500.0,	70.0,	0.0,	0.0);
TRS	:	(	4000.0,	70.0,	0.0,	0.0);	TRS	:	(	4500.0,	70.0,	0.0,	0.0);
TRS	:	(	5000.0,	70.0,	0.0,	0.0);	TRS	:	(	838.0,	80.0,	0.0,	0.0);
TRS	:	(	1100.0,	80.0,	0.0,	0.0);	TRS	:	(	1500.0,	80.0,	0.0,	0.0);
TRS	:	(	2000.0,	80.0,	0.0,	0.0);	TRS	:	(	2500.0,	80.0,	0.0,	0.0);
TRS	:	(	3000.0,	80.0,	0.0,	0.0);	TRS	:	(	3500.0,	80.0,	0.0,	0.0);
TRS	:	(	4000.0,	80.0,	0.0,	0.0);	TRS	:	(	4500.0,	80.0,	0.0,	0.0);
TRS	:	(	5000.0,	80.0,	0.0,	0.0);	TRS	:	(	686.0,	90.0,	0.0,	0.0);
TRS	:	(	1100.0,	90.0,	0.0,	0.0);	TRS	:	(	1500.0,	90.0,	0.0,	0.0);
TRS	:	(	2000.0,	90.0,	0.0,	0.0);	TRS	:	(	2500.0,	90.0,	0.0,	0.0);
TRS	:	(	3000.0,	90.0,	0.0,	0.0);	TRS	:	(	3500.0,	90.0,	0.0,	0.0);
TRS	:	(	4000.0,	90.0,	0.0,	0.0);	TRS	:	(	4500.0,	90.0,	0.0,	0.0);
TRS	:	(	5000.0,	90.0,	0.0,	0.0);	TRS	:	(	533.0,	100.0,	0.0,	0.0);
TRS	:	(	700.0,	100.0,	0.0,	0.0);	TRS	:	(	1100.0,	100.0,	0.0,	0.0);
TRS	:	(	1500.0,	100.0,	0.0,	0.0);	TRS	:	(	2000.0,	100.0,	0.0,	0.0);
TRS	:	(	2500.0,	100.0,	0.0,	0.0);	TRS	:	(	3000.0,	100.0,	0.0,	0.0);
TRS	:	(	3500.0,	100.0,	0.0,	0.0);	TRS	:	(	4000.0,	100.0,	0.0,	0.0);
TRS	:	(	4500.0,	100.0,	0.0,	0.0);	TRS	:	(	5000.0,	100.0,	0.0,	0.0);
TRS	:	(	457.0,	110.0,	0.0,	0.0);	TRS	:	(	700.0,	110.0,	0.0,	0.0);
TRS	:	(	1100.0,	110.0,	0.0,	0.0);	TRS	:	(	1500.0,	110.0,	0.0,	0.0);
TRS	:	(	2000.0,	110.0,	0.0,	0.0);	TRS	:	(	2500.0,	110.0,	0.0,	0.0);
TRS	:	(	3000.0,	110.0,	0.0,	0.0);	TRS	:	(	3500.0,	110.0,	0.0,	0.0);
TRS	:	(	4000.0,	110.0,	0.0,	0.0);	TRS	:	(	4500.0,	110.0,	0.0,	0.0);
TRS	:	(	5000.0,	110.0,	0.0,	0.0);	TRS	:	(	457.0,	120.0,	0.0,	0.0);
TRS	:	(	700.0,	120.0,	0.0,	0.0);	TRS	:	(	1100.0,	120.0,	0.0,	0.0);
TRS	:	(	1500.0,	120.0,	0.0,	0.0);	TRS	:	(	2000.0,	120.0,	0.0,	0.0);
TRS	:	(	2500.0,	120.0,	0.0,	0.0);	TRS	:	(	3000.0,	120.0,	0.0,	0.0);
TRS	:	(	3500.0,	120.0,	0.0,	0.0);	TRS	:	(	4000.0,	120.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	4500.0,	120.0,	0.0,	0.0);	TRS	:	(	5000.0,	120.0,	0.0,	0.0);
TRS	:	(	457.0,	130.0,	0.0,	0.0);	TRS	:	(	700.0,	130.0,	0.0,	0.0);
TRS	:	(	1100.0,	130.0,	0.0,	0.0);	TRS	:	(	1500.0,	130.0,	0.0,	0.0);
TRS	:	(	2000.0,	130.0,	0.0,	0.0);	TRS	:	(	2500.0,	130.0,	0.0,	0.0);
TRS	:	(	3000.0,	130.0,	0.0,	0.0);	TRS	:	(	3500.0,	130.0,	0.0,	0.0);
TRS	:	(	4000.0,	130.0,	0.0,	0.0);	TRS	:	(	4500.0,	130.0,	0.0,	0.0);
TRS	:	(	5000.0,	130.0,	0.0,	0.0);	TRS	:	(	457.0,	140.0,	0.0,	0.0);
TRS	:	(	700.0,	140.0,	0.0,	0.0);	TRS	:	(	1100.0,	140.0,	0.0,	0.0);
TRS	:	(	1500.0,	140.0,	0.0,	0.0);	TRS	:	(	2000.0,	140.0,	0.0,	0.0);
TRS	:	(	2500.0,	140.0,	0.0,	0.0);	TRS	:	(	3000.0,	140.0,	0.0,	0.0);
TRS	:	(	3500.0,	140.0,	0.0,	0.0);	TRS	:	(	4000.0,	140.0,	0.0,	0.0);
TRS	:	(	4500.0,	140.0,	0.0,	0.0);	TRS	:	(	5000.0,	140.0,	0.0,	0.0);
TRS	:	(	457.0,	150.0,	0.0,	0.0);	TRS	:	(	700.0,	150.0,	0.0,	0.0);
TRS	:	(	1100.0,	150.0,	0.0,	0.0);	TRS	:	(	1500.0,	150.0,	0.0,	0.0);
TRS	:	(	2000.0,	150.0,	0.0,	0.0);	TRS	:	(	2500.0,	150.0,	0.0,	0.0);
TRS	:	(	3000.0,	150.0,	0.0,	0.0);	TRS	:	(	3500.0,	150.0,	0.0,	0.0);
TRS	:	(	4000.0,	150.0,	0.0,	0.0);	TRS	:	(	4500.0,	150.0,	0.0,	0.0);
TRS	:	(	5000.0,	150.0,	0.0,	0.0);	TRS	:	(	488.0,	160.0,	0.0,	0.0);
TRS	:	(	700.0,	160.0,	0.0,	0.0);	TRS	:	(	1100.0,	160.0,	0.0,	0.0);
TRS	:	(	1500.0,	160.0,	0.0,	0.0);	TRS	:	(	2000.0,	160.0,	0.0,	0.0);
TRS	:	(	2500.0,	160.0,	0.0,	0.0);	TRS	:	(	3000.0,	160.0,	0.0,	0.0);
TRS	:	(	3500.0,	160.0,	0.0,	0.0);	TRS	:	(	4000.0,	160.0,	0.0,	0.0);
TRS	:	(	4500.0,	160.0,	0.0,	0.0);	TRS	:	(	5000.0,	160.0,	0.0,	0.0);
TRS	:	(	533.0,	170.0,	0.0,	0.0);	TRS	:	(	700.0,	170.0,	0.0,	0.0);
TRS	:	(	1100.0,	170.0,	0.0,	0.0);	TRS	:	(	1500.0,	170.0,	0.0,	0.0);
TRS	:	(	2000.0,	170.0,	0.0,	0.0);	TRS	:	(	2500.0,	170.0,	0.0,	0.0);
TRS	:	(	3000.0,	170.0,	0.0,	0.0);	TRS	:	(	3500.0,	170.0,	0.0,	0.0);
TRS	:	(	4000.0,	170.0,	0.0,	0.0);	TRS	:	(	4500.0,	170.0,	0.0,	0.0);
TRS	:	(	5000.0,	170.0,	0.0,	0.0);	TRS	:	(	610.0,	180.0,	0.0,	0.0);
TRS	:	(	700.0,	180.0,	0.0,	0.0);	TRS	:	(	1100.0,	180.0,	0.0,	0.0);
TRS	:	(	1500.0,	180.0,	0.0,	0.0);	TRS	:	(	2000.0,	180.0,	0.0,	0.0);
TRS	:	(	2500.0,	180.0,	0.0,	0.0);	TRS	:	(	3000.0,	180.0,	0.0,	0.0);
TRS	:	(	3500.0,	180.0,	0.0,	0.0);	TRS	:	(	4000.0,	180.0,	0.0,	0.0);
TRS	:	(	4500.0,	180.0,	0.0,	0.0);	TRS	:	(	5000.0,	180.0,	0.0,	0.0);
TRS	:	(	750.0,	190.0,	0.0,	0.0);	TRS	:	(	1100.0,	190.0,	0.0,	0.0);
TRS	:	(	1500.0,	190.0,	0.0,	0.0);	TRS	:	(	2000.0,	190.0,	0.0,	0.0);
TRS	:	(	2500.0,	190.0,	0.0,	0.0);	TRS	:	(	3000.0,	190.0,	0.0,	0.0);
TRS	:	(	3500.0,	190.0,	0.0,	0.0);	TRS	:	(	4000.0,	190.0,	0.0,	0.0);
TRS	:	(	4500.0,	190.0,	0.0,	0.0);	TRS	:	(	5000.0,	190.0,	0.0,	0.0);
TRS	:	(	1829.0,	200.0,	0.0,	0.0);	TRS	:	(	2000.0,	200.0,	0.0,	0.0);
TRS	:	(	2500.0,	200.0,	0.0,	0.0);	TRS	:	(	3000.0,	200.0,	0.0,	0.0);
TRS	:	(	3500.0,	200.0,	0.0,	0.0);	TRS	:	(	4000.0,	200.0,	0.0,	0.0);
TRS	:	(	4500.0,	200.0,	0.0,	0.0);	TRS	:	(	5000.0,	200.0,	0.0,	0.0);
TRS	:	(	1829.0,	210.0,	0.0,	0.0);	TRS	:	(	2000.0,	210.0,	0.0,	0.0);
TRS	:	(	2500.0,	210.0,	0.0,	0.0);	TRS	:	(	3000.0,	210.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	3500.0,	210.0,	0.0,	0.0);	TRS	:	(	4000.0,	210.0,	0.0,	0.0);
TRS	:	(	4500.0,	210.0,	0.0,	0.0);	TRS	:	(	5000.0,	210.0,	0.0,	0.0);
TRS	:	(	1981.0,	220.0,	0.0,	0.0);	TRS	:	(	2000.0,	220.0,	0.0,	0.0);
TRS	:	(	2500.0,	220.0,	0.0,	0.0);	TRS	:	(	3000.0,	220.0,	0.0,	0.0);
TRS	:	(	3500.0,	220.0,	0.0,	0.0);	TRS	:	(	4000.0,	220.0,	0.0,	0.0);
TRS	:	(	4500.0,	220.0,	0.0,	0.0);	TRS	:	(	5000.0,	220.0,	0.0,	0.0);
TRS	:	(	2134.0,	230.0,	0.0,	0.0);	TRS	:	(	2500.0,	230.0,	0.0,	0.0);
TRS	:	(	3000.0,	230.0,	0.0,	0.0);	TRS	:	(	3500.0,	230.0,	0.0,	0.0);
TRS	:	(	4000.0,	230.0,	0.0,	0.0);	TRS	:	(	4500.0,	230.0,	0.0,	0.0);
TRS	:	(	5000.0,	230.0,	0.0,	0.0);	TRS	:	(	2438.0,	240.0,	0.0,	0.0);
TRS	:	(	2500.0,	240.0,	0.0,	0.0);	TRS	:	(	3000.0,	240.0,	0.0,	0.0);
TRS	:	(	3500.0,	240.0,	0.0,	0.0);	TRS	:	(	4000.0,	240.0,	0.0,	0.0);
TRS	:	(	4500.0,	240.0,	0.0,	0.0);	TRS	:	(	5000.0,	240.0,	0.0,	0.0);
TRS	:	(	2896.0,	250.0,	0.0,	0.0);	TRS	:	(	3000.0,	250.0,	0.0,	0.0);
TRS	:	(	3500.0,	250.0,	0.0,	0.0);	TRS	:	(	4000.0,	250.0,	0.0,	0.0);
TRS	:	(	4500.0,	250.0,	0.0,	0.0);	TRS	:	(	5000.0,	250.0,	0.0,	0.0);
TRS	:	(	3048.0,	260.0,	0.0,	0.0);	TRS	:	(	3500.0,	260.0,	0.0,	0.0);
TRS	:	(	4000.0,	260.0,	0.0,	0.0);	TRS	:	(	4500.0,	260.0,	0.0,	0.0);
TRS	:	(	5000.0,	260.0,	0.0,	0.0);	TRS	:	(	3658.0,	270.0,	0.0,	0.0);
TRS	:	(	4000.0,	270.0,	0.0,	0.0);	TRS	:	(	4500.0,	270.0,	0.0,	0.0);
TRS	:	(	5000.0,	270.0,	0.0,	0.0);	TRS	:	(	3962.0,	280.0,	0.0,	0.0);
TRS	:	(	4000.0,	280.0,	0.0,	0.0);	TRS	:	(	4500.0,	280.0,	0.0,	0.0);
TRS	:	(	5000.0,	280.0,	0.0,	0.0);	TRS	:	(	4572.0,	290.0,	0.0,	0.0);
TRS	:	(	5000.0,	290.0,	0.0,	0.0);	TRS	:	(	5182.0,	300.0,	0.0,	0.0);
TRS	:	(	4801.0,	310.0,	0.0,	0.0);	TRS	:	(	5000.0,	310.0,	0.0,	0.0);
TRS	:	(	4875.0,	320.0,	0.0,	0.0);	TRS	:	(	5000.0,	320.0,	0.0,	0.0);
TRS	:	(	6000.0,	330.0,	0.0,	0.0);	TRS	:	(	5500.0,	340.0,	0.0,	0.0);
TRS	:	(	5250.0,	350.0,	0.0,	0.0);	TRS	:	(	5125.0,	360.0,	0.0,	0.0);

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL86.BIN

FORMAT: UNIFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1986

YEAR: 1986

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-0	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
86	1	1	1	331.0	4.12	287.0	4	1367.4	1367.4	0.0000	0.0	0.0000	0	0.00
86	1	1	2	38.0	3.60	287.6	4	1328.9	1328.9	0.0000	0.0	0.0000	0	0.00
86	1	1	3	14.0	5.14	287.6	4	1290.4	1290.4	0.0000	0.0	0.0000	0	0.00
86	1	1	4	43.0	2.57	287.6	4	1251.9	1251.9	0.0000	0.0	0.0000	0	0.00
86	1	1	5	43.0	1.00	287.6	4	1213.4	1213.4	0.0000	0.0	0.0000	0	0.00
86	1	1	6	52.0	2.06	288.2	4	1174.9	1174.9	0.0000	0.0	0.0000	0	0.00
86	1	1	7	55.0	1.00	288.2	4	1136.4	1136.4	0.0000	0.0	0.0000	0	0.00
86	1	1	8	93.0	3.60	288.2	4	1097.9	1097.9	0.0000	0.0	0.0000	0	0.00
86	1	1	9	117.0	1.54	288.2	4	1059.5	1059.5	0.0000	0.0	0.0000	0	0.00
86	1	1	10	121.0	1.00	288.7	4	1021.0	1021.0	0.0000	0.0	0.0000	0	0.00
86	1	1	11	254.0	2.06	289.3	4	982.5	982.5	0.0000	0.0	0.0000	0	0.00
86	1	1	12	266.0	2.06	289.8	4	944.0	944.0	0.0000	0.0	0.0000	0	0.00
86	1	1	13	273.0	1.00	290.4	4	905.5	905.5	0.0000	0.0	0.0000	0	0.00
86	1	1	14	189.0	3.60	290.4	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	15	252.0	3.09	290.4	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	16	274.0	2.57	290.4	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	17	271.0	2.57	290.9	4	867.0	867.0	0.0000	0.0	0.0000	0	0.00
86	1	1	18	247.0	2.57	290.4	5	864.3	832.8	0.0000	0.0	0.0000	0	0.00
86	1	1	19	244.0	2.06	289.8	4	857.6	857.6	0.0000	0.0	0.0000	0	0.00
86	1	1	20	237.0	1.00	289.8	4	850.8	850.8	0.0000	0.0	0.0000	0	0.00
86	1	1	21	310.0	2.06	289.3	5	844.0	572.9	0.0000	0.0	0.0000	0	0.00
86	1	1	22	302.0	2.57	288.7	4	837.3	837.3	0.0000	0.0	0.0000	0	0.00
86	1	1	23	270.0	2.57	288.7	4	830.5	830.5	0.0000	0.0	0.0000	0	0.00
86	1	1	24	270.0	3.60	288.2	4	823.7	823.7	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	10.00	0.28307	TRS	4500.00	20.00	0.30238
TRS	5000.00	20.00	0.26066	TRS	2500.00	30.00	0.71754
TRS	3000.00	30.00	0.55090	TRS	3500.00	30.00	0.44085
TRS	4000.00	30.00	0.36346	TRS	4500.00	30.00	0.30654
TRS	5000.00	30.00	0.26322	TRS	2500.00	40.00	0.71173
TRS	3000.00	40.00	0.56310	TRS	3500.00	40.00	0.46099
TRS	4000.00	40.00	0.38695	TRS	4500.00	40.00	0.33127
TRS	5000.00	40.00	0.28808	TRS	1500.00	50.00	1.40123
TRS	2000.00	50.00	0.97935	TRS	2500.00	50.00	0.73744
TRS	3000.00	50.00	0.58305	TRS	3500.00	50.00	0.47679
TRS	4000.00	50.00	0.39988	TRS	4500.00	50.00	0.34201
TRS	5000.00	50.00	0.29704	TRS	1500.00	60.00	1.57795
TRS	2000.00	60.00	1.11782	TRS	2500.00	60.00	0.84652
TRS	3000.00	60.00	0.67160	TRS	3500.00	60.00	0.55050
TRS	4000.00	60.00	0.46254	TRS	4500.00	60.00	0.39620
TRS	5000.00	60.00	0.34457	TRS	1500.00	70.00	1.46350
TRS	2000.00	70.00	0.94528	TRS	2500.00	70.00	0.68089
TRS	3000.00	70.00	0.52323	TRS	3500.00	70.00	0.41918
TRS	4000.00	70.00	0.34601	TRS	4500.00	70.00	0.29208
TRS	5000.00	70.00	0.25090	TRS	838.00	80.00	4.24810
TRS	1100.00	80.00	3.05791	TRS	1500.00	80.00	1.95700
TRS	2000.00	80.00	1.29079	TRS	2500.00	80.00	0.94011
TRS	3000.00	80.00	0.72665	TRS	3500.00	80.00	0.58490
TRS	4000.00	80.00	0.48456	TRS	4500.00	80.00	0.41025
TRS	5000.00	80.00	0.35333	TRS	686.00	90.00	5.14502
TRS	1100.00	90.00	3.09506	TRS	1500.00	90.00	2.14373
TRS	2000.00	90.00	1.47656	TRS	2500.00	90.00	1.09035
TRS	3000.00	90.00	0.84727	TRS	3500.00	90.00	0.68423
TRS	4000.00	90.00	0.56869	TRS	4500.00	90.00	0.48317
TRS	5000.00	90.00	0.41769	TRS	533.00	100.00	6.36906
TRS	700.00	100.00	4.88812	TRS	1100.00	100.00	3.43160
TRS	1500.00	100.00	2.27588	TRS	2000.00	100.00	1.50149
TRS	2500.00	100.00	1.11057	TRS	3000.00	100.00	0.87459
TRS	3500.00	100.00	0.71539	TRS	4000.00	100.00	0.60071
TRS	4500.00	100.00	0.51438	TRS	5000.00	100.00	0.44734
TRS	457.00	110.00	5.75886	TRS	700.00	110.00	4.30605
TRS	1100.00	110.00	3.12713	TRS	1500.00	110.00	2.21583
TRS	2000.00	110.00	1.51760	TRS	2500.00	110.00	1.14522
TRS	3000.00	110.00	0.91844	TRS	3500.00	110.00	0.76590
TRS	4000.00	110.00	0.65573	TRS	4500.00	110.00	0.57207

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	110.00	0.50621	TRS	457.00	120.00	5.10965
TRS	700.00	120.00	3.79281	TRS	1100.00	120.00	2.71691
TRS	1500.00	120.00	1.91205	TRS	2000.00	120.00	1.35646
TRS	2500.00	120.00	1.04134	TRS	3000.00	120.00	0.83906
TRS	3500.00	120.00	0.70009	TRS	4000.00	120.00	0.59939
TRS	4500.00	120.00	0.52316	TRS	5000.00	120.00	0.46340
TRS	457.00	130.00	5.17210	TRS	700.00	130.00	3.39567
TRS	1100.00	130.00	2.30454	TRS	1500.00	130.00	1.62089
TRS	2000.00	130.00	1.16345	TRS	2500.00	130.00	0.89685
TRS	3000.00	130.00	0.72561	TRS	3500.00	130.00	0.60797
TRS	4000.00	130.00	0.52243	TRS	4500.00	130.00	0.45731
TRS	5000.00	130.00	0.40596	TRS	457.00	140.00	4.99682
TRS	700.00	140.00	3.61629	TRS	1100.00	140.00	2.26213
TRS	1500.00	140.00	1.53229	TRS	2000.00	140.00	1.04064
TRS	2500.00	140.00	0.77047	TRS	3000.00	140.00	0.60894
TRS	3500.00	140.00	0.50342	TRS	4000.00	140.00	0.42904
TRS	4500.00	140.00	0.37354	TRS	5000.00	140.00	0.33034
TRS	457.00	150.00	4.47669	TRS	700.00	150.00	3.35517
TRS	1100.00	150.00	2.42234	TRS	1500.00	150.00	1.76079
TRS	2000.00	150.00	1.23089	TRS	2500.00	150.00	0.92596
TRS	3000.00	150.00	0.73606	TRS	3500.00	150.00	0.60761
TRS	4000.00	150.00	0.51510	TRS	4500.00	150.00	0.44534
TRS	5000.00	150.00	0.39091	TRS	488.00	160.00	4.13510
TRS	700.00	160.00	2.99607	TRS	1100.00	160.00	2.10781
TRS	1500.00	160.00	1.55833	TRS	2000.00	160.00	1.14183
TRS	2500.00	160.00	0.88451	TRS	3000.00	160.00	0.71306
TRS	3500.00	160.00	0.59190	TRS	4000.00	160.00	0.50247
TRS	4500.00	160.00	0.43411	TRS	5000.00	160.00	0.38040
TRS	533.00	170.00	3.99271	TRS	700.00	170.00	3.41784
TRS	1100.00	170.00	2.19529	TRS	1500.00	170.00	1.48574
TRS	2000.00	170.00	1.02042	TRS	2500.00	170.00	0.76283
TRS	3000.00	170.00	0.60326	TRS	3500.00	170.00	0.49548
TRS	4000.00	170.00	0.41816	TRS	4500.00	170.00	0.36016
TRS	5000.00	170.00	0.31516	TRS	610.00	180.00	3.40932
TRS	700.00	180.00	3.05479	TRS	1100.00	180.00	2.00168
TRS	1500.00	180.00	1.45727	TRS	2000.00	180.00	1.07420
TRS	2500.00	180.00	0.84100	TRS	3000.00	180.00	0.68545
TRS	3500.00	180.00	0.57437	TRS	4000.00	180.00	0.49133
TRS	4500.00	180.00	0.42714	TRS	5000.00	180.00	0.37621
TRS	750.00	190.00	3.17707	TRS	1100.00	190.00	2.07199

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	1500.00	190.00	1.43953	TRS	2000.00	190.00	1.01897
TRS	2500.00	190.00	0.77565	TRS	3000.00	190.00	0.61972
TRS	3500.00	190.00	0.51174	TRS	4000.00	190.00	0.43295
TRS	4500.00	190.00	0.37316	TRS	5000.00	190.00	0.32643
TRS	1829.00	200.00	1.41121	TRS	2000.00	200.00	1.28130
TRS	2500.00	200.00	0.99814	TRS	3000.00	200.00	0.80871
TRS	3500.00	200.00	0.67384	TRS	4000.00	200.00	0.57356
TRS	4500.00	200.00	0.49646	TRS	5000.00	200.00	0.43560
TRS	1829.00	210.00	1.36059	TRS	2000.00	210.00	1.23059
TRS	2500.00	210.00	0.94940	TRS	3000.00	210.00	0.76309
TRS	3500.00	210.00	0.63159	TRS	4000.00	210.00	0.53457
TRS	4500.00	210.00	0.46049	TRS	5000.00	210.00	0.40235
TRS	1981.00	220.00	1.19389	TRS	2000.00	220.00	1.18243
TRS	2500.00	220.00	0.93693	TRS	3000.00	220.00	0.76781
TRS	3500.00	220.00	0.64462	TRS	4000.00	220.00	0.55179
TRS	4500.00	220.00	0.47969	TRS	5000.00	220.00	0.42228
TRS	2134.00	230.00	1.06113	TRS	2500.00	230.00	0.89501
TRS	3000.00	230.00	0.73004	TRS	3500.00	230.00	0.61080
TRS	4000.00	230.00	0.52135	TRS	4500.00	230.00	0.45209
TRS	5000.00	230.00	0.39712	TRS	2438.00	240.00	0.88844
TRS	2500.00	240.00	0.86400	TRS	3000.00	240.00	0.70279
TRS	3500.00	240.00	0.58735	TRS	4000.00	240.00	0.50127
TRS	4500.00	240.00	0.43486	TRS	5000.00	240.00	0.38227
TRS	2896.00	250.00	0.60994	TRS	3000.00	250.00	0.58521
TRS	3500.00	250.00	0.48734	TRS	4000.00	250.00	0.41474
TRS	4500.00	250.00	0.35889	TRS	5000.00	250.00	0.31482
TRS	3048.00	260.00	0.78821	TRS	3500.00	260.00	0.66792
TRS	4000.00	260.00	0.56633	TRS	4500.00	260.00	0.48789
TRS	5000.00	260.00	0.42595	TRS	3658.00	270.00	0.96006
TRS	4000.00	270.00	0.86657	TRS	4500.00	270.00	0.75455
TRS	5000.00	270.00	0.66472	TRS	3962.00	280.00	0.60051
TRS	4000.00	280.00	0.59290	TRS	4500.00	280.00	0.50631
TRS	5000.00	280.00	0.43924	TRS	4572.00	290.00	0.36112
TRS	5000.00	290.00	0.32051	TRS	5182.00	300.00	0.52684
TRS	4801.00	310.00	0.42101	TRS	5000.00	310.00	0.39750
TRS	4875.00	320.00	0.32295	TRS	5000.00	320.00	0.31179
TRS	6000.00	330.00	0.26823	TRS	5500.00	340.00	0.29033
TRS	5250.00	350.00	0.32112	TRS	5125.00	360.00	0.36233

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS :	5000.00	10.00	3.92391c (86072324)	TRS :	4500.00	20.00	4.75225c (86081424)
TRS :	5000.00	20.00	4.07971c (86063024)	TRS :	2500.00	30.00	11.61947c (86082024)
TRS :	3000.00	30.00	9.22019c (86082024)	TRS :	3500.00	30.00	7.56436c (86082024)
TRS :	4000.00	30.00	6.35979c (86082024)	TRS :	4500.00	30.00	5.44897c (86082024)
TRS :	5000.00	30.00	4.73907c (86082024)	TRS :	2500.00	40.00	9.27751c (86111724)
TRS :	3000.00	40.00	7.34020c (86111724)	TRS :	3500.00	40.00	5.97881c (86111724)
TRS :	4000.00	40.00	4.97939c (86111724)	TRS :	4500.00	40.00	4.22244c (86111724)
TRS :	5000.00	40.00	3.63397c (86111724)	TRS :	1500.00	50.00	15.13388c (86022224)
TRS :	2000.00	50.00	11.51821 (86072824)	TRS :	2500.00	50.00	9.14069 (86072824)
TRS :	3000.00	50.00	7.44576 (86072824)	TRS :	3500.00	50.00	6.20103 (86072824)
TRS :	4000.00	50.00	5.25763 (86072824)	TRS :	4500.00	50.00	4.53966c (86111724)
TRS :	5000.00	50.00	3.98907c (86111724)	TRS :	1500.00	60.00	19.08747c (86030324)
TRS :	2000.00	60.00	14.75685c (86030324)	TRS :	2500.00	60.00	11.83796c (86030324)
TRS :	3000.00	60.00	9.80659c (86030324)	TRS :	3500.00	60.00	8.30796c (86030324)
TRS :	4000.00	60.00	7.17215c (86030324)	TRS :	4500.00	60.00	6.28515c (86030324)
TRS :	5000.00	60.00	5.57432c (86030324)	TRS :	1500.00	70.00	15.57007c (86081524)
TRS :	2000.00	70.00	9.42210c (86081524)	TRS :	2500.00	70.00	6.30074c (86081524)
TRS :	3000.00	70.00	4.54055c (86081524)	TRS :	3500.00	70.00	3.45459c (86081524)
TRS :	4000.00	70.00	2.78950c (86010324)	TRS :	4500.00	70.00	2.45435c (86070224)
TRS :	5000.00	70.00	2.19768c (86070224)	TRS :	838.00	80.00	37.34047c (86022024)
TRS :	1100.00	80.00	32.39523 (86111824)	TRS :	1500.00	80.00	25.19246 (86111824)
TRS :	2000.00	80.00	16.91708 (86111824)	TRS :	2500.00	80.00	12.85065c (86020724)
TRS :	3000.00	80.00	10.85229c (86070224)	TRS :	3500.00	80.00	9.45113c (86070224)
TRS :	4000.00	80.00	8.24012c (86070224)	TRS :	4500.00	80.00	7.22197c (86070224)
TRS :	5000.00	80.00	6.37281c (86070224)	TRS :	686.00	90.00	46.00431c (86071024)
TRS :	1100.00	90.00	33.20052c (86102624)	TRS :	1500.00	90.00	18.53937c (86102624)
TRS :	2000.00	90.00	14.36767 (86012024)	TRS :	2500.00	90.00	11.92172 (86012024)
TRS :	3000.00	90.00	9.47505 (86012024)	TRS :	3500.00	90.00	7.87958c (86071524)
TRS :	4000.00	90.00	6.69999c (86071524)	TRS :	4500.00	90.00	5.71165c (86071524)
TRS :	5000.00	90.00	4.90184c (86071524)	TRS :	533.00	100.00	42.59427c (86100424)
TRS :	700.00	100.00	43.76976c (86011924)	TRS :	1100.00	100.00	30.82725c (86081824)
TRS :	1500.00	100.00	16.59134c (86071424)	TRS :	2000.00	100.00	14.06645c (86022424)
TRS :	2500.00	100.00	11.22244c (86050824)	TRS :	3000.00	100.00	9.64016c (86050824)
TRS :	3500.00	100.00	8.22893c (86050824)	TRS :	4000.00	100.00	7.06463c (86050824)
TRS :	4500.00	100.00	6.11450c (86050824)	TRS :	5000.00	100.00	5.33968c (86050824)
TRS :	457.00	110.00	48.52296c (86042524)	TRS :	700.00	110.00	57.54167c (86082424)
TRS :	1100.00	110.00	25.52408c (86011924)	TRS :	1500.00	110.00	24.86694c (86011224)
TRS :	2000.00	110.00	16.92725c (86011924)	TRS :	2500.00	110.00	11.40222c (86090524)
TRS :	3000.00	110.00	8.94276c (86090524)	TRS :	3500.00	110.00	6.75454c (86090524)
TRS :	4000.00	110.00	5.27011 (86122424)	TRS :	4500.00	110.00	4.77485c (86100524)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	4.48244c	(86100524)	TRS	457.00	120.00	46.76612c	(86053024)
TRS	700.00	120.00	29.07633c	(86042224)	TRS	1100.00	120.00	28.49761c	(86040224)
TRS	1500.00	120.00	20.86836c	(86082424)	TRS	2000.00	120.00	22.17723c	(86082424)
TRS	2500.00	120.00	18.86609c	(86082424)	TRS	3000.00	120.00	14.47135c	(86082424)
TRS	3500.00	120.00	10.84606c	(86082424)	TRS	4000.00	120.00	8.19229c	(86082424)
TRS	4500.00	120.00	6.29800c	(86082424)	TRS	5000.00	120.00	4.93956c	(86082424)
TRS	457.00	130.00	59.71733c	(86122024)	TRS	700.00	130.00	34.12533c	(86122024)
TRS	1100.00	130.00	21.92397c	(86053024)	TRS	1500.00	130.00	15.11720	(86040924)
TRS	2000.00	130.00	10.88267c	(86061324)	TRS	2500.00	130.00	8.37998c	(86020724)
TRS	3000.00	130.00	7.17888c	(86020724)	TRS	3500.00	130.00	6.07110c	(86020724)
TRS	4000.00	130.00	5.23654c	(86051224)	TRS	4500.00	130.00	4.67710c	(86051224)
TRS	5000.00	130.00	4.26085c	(86032824)	TRS	457.00	140.00	57.97781c	(86110324)
TRS	700.00	140.00	43.51149c	(86122024)	TRS	1100.00	140.00	35.81163c	(86122024)
TRS	1500.00	140.00	23.32411c	(86122024)	TRS	2000.00	140.00	13.56109c	(86122024)
TRS	2500.00	140.00	10.54201	(86022524)	TRS	3000.00	140.00	8.20852	(86022524)
TRS	3500.00	140.00	6.54943	(86022524)	TRS	4000.00	140.00	5.82427	(86030724)
TRS	4500.00	140.00	5.55001	(86030724)	TRS	5000.00	140.00	5.24595	(86030724)
TRS	457.00	150.00	49.00729c	(86042324)	TRS	700.00	150.00	36.73280c	(86110324)
TRS	1100.00	150.00	37.65602c	(86110324)	TRS	1500.00	150.00	25.79297c	(86110324)
TRS	2000.00	150.00	15.66805c	(86110324)	TRS	2500.00	150.00	12.79423c	(86122024)
TRS	3000.00	150.00	10.50367c	(86122024)	TRS	3500.00	150.00	8.73755c	(86122024)
TRS	4000.00	150.00	7.37937c	(86122024)	TRS	4500.00	150.00	6.32155c	(86122024)
TRS	5000.00	150.00	5.48421c	(86122024)	TRS	488.00	160.00	51.99940c	(86111524)
TRS	700.00	160.00	42.78701c	(86110224)	TRS	1100.00	160.00	26.07684c	(86042324)
TRS	1500.00	160.00	15.31792c	(86042324)	TRS	2000.00	160.00	12.02803	(86120324)
TRS	2500.00	160.00	11.89254	(86120324)	TRS	3000.00	160.00	10.84300	(86120324)
TRS	3500.00	160.00	9.56955	(86120324)	TRS	4000.00	160.00	8.36003	(86120324)
TRS	4500.00	160.00	7.30005	(86120324)	TRS	5000.00	160.00	6.39901	(86120324)
TRS	533.00	170.00	56.89844c	(86111524)	TRS	700.00	170.00	58.24977c	(86111524)
TRS	1100.00	170.00	36.87025c	(86111524)	TRS	1500.00	170.00	21.84251c	(86111524)
TRS	2000.00	170.00	15.79590c	(86110224)	TRS	2500.00	170.00	12.34958c	(86110224)
TRS	3000.00	170.00	10.55712	(86122924)	TRS	3500.00	170.00	10.19066	(86122924)
TRS	4000.00	170.00	9.62466	(86122924)	TRS	4500.00	170.00	8.99332	(86122924)
TRS	5000.00	170.00	8.36384	(86122924)	TRS	610.00	180.00	30.97620	(86122624)
TRS	700.00	180.00	28.27603	(86122624)	TRS	1100.00	180.00	18.98435c	(86110224)
TRS	1500.00	180.00	16.90341c	(86111524)	TRS	2000.00	180.00	14.71887c	(86111524)
TRS	2500.00	180.00	12.43826c	(86111524)	TRS	3000.00	180.00	10.53566c	(86111524)
TRS	3500.00	180.00	9.00149c	(86111524)	TRS	4000.00	180.00	7.76935c	(86111524)
TRS	4500.00	180.00	6.85348c	(86101524)	TRS	5000.00	180.00	6.14049c	(86101524)
TRS	750.00	190.00	38.79410c	(86110224)	TRS	1100.00	190.00	25.90731c	(86110224)

MODELOPTS: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	17.71731	(86102924)	TRS	2000.00	190.00	12.80514	(86102924)
TRS	2500.00	190.00	9.63052	(86102924)	TRS	3000.00	190.00	7.53473	(86102924)
TRS	3500.00	190.00	6.07630	(86102924)	TRS	4000.00	190.00	5.01944	(86102924)
TRS	4500.00	190.00	4.22833	(86102924)	TRS	5000.00	190.00	3.86041c	(86092024)
TRS	1829.00	200.00	13.58848c	(86102824)	TRS	2000.00	200.00	12.48319c	(86102824)
TRS	2500.00	200.00	9.99356c	(86102824)	TRS	3000.00	200.00	8.25789c	(86102824)
TRS	3500.00	200.00	6.98831c	(86102824)	TRS	4000.00	200.00	6.02526c	(86102824)
TRS	4500.00	200.00	5.27234c	(86102824)	TRS	5000.00	200.00	4.67473c	(86120724)
TRS	1829.00	210.00	18.89873	(86103024)	TRS	2000.00	210.00	17.09704	(86103024)
TRS	2500.00	210.00	13.13187	(86103024)	TRS	3000.00	210.00	10.48762	(86103024)
TRS	3500.00	210.00	8.60965	(86103024)	TRS	4000.00	210.00	7.22143	(86103024)
TRS	4500.00	210.00	6.16292	(86103024)	TRS	5000.00	210.00	5.33510	(86103024)
TRS	1981.00	220.00	20.45775	(86103124)	TRS	2000.00	220.00	20.27143	(86103124)
TRS	2500.00	220.00	16.19462	(86103124)	TRS	3000.00	220.00	13.30739	(86103124)
TRS	3500.00	220.00	11.17063	(86103124)	TRS	4000.00	220.00	9.54129	(86103124)
TRS	4500.00	220.00	8.26678	(86103124)	TRS	5000.00	220.00	7.24814	(86103124)
TRS	2134.00	230.00	12.48748	(86110124)	TRS	2500.00	230.00	10.57669	(86110124)
TRS	3000.00	230.00	8.64103	(86110124)	TRS	3500.00	230.00	7.22011	(86110124)
TRS	4000.00	230.00	6.14297	(86110124)	TRS	4500.00	230.00	5.30473	(86110124)
TRS	5000.00	230.00	4.63865c	(86051324)	TRS	2438.00	240.00	9.40775	(86122224)
TRS	2500.00	240.00	9.14559	(86122224)	TRS	3000.00	240.00	7.40725	(86122224)
TRS	3500.00	240.00	6.15612	(86122224)	TRS	4000.00	240.00	5.22216	(86122224)
TRS	4500.00	240.00	4.50310	(86122224)	TRS	5000.00	240.00	3.93544	(86122224)
TRS	2896.00	250.00	7.41700c	(86120124)	TRS	3000.00	250.00	7.14854c	(86120124)
TRS	3500.00	250.00	6.04563c	(86120124)	TRS	4000.00	250.00	5.18736c	(86120124)
TRS	4500.00	250.00	4.50689c	(86120124)	TRS	5000.00	250.00	3.95815c	(86120124)
TRS	3048.00	260.00	9.10272c	(86120124)	TRS	3500.00	260.00	7.76488c	(86062024)
TRS	4000.00	260.00	6.75013c	(86062024)	TRS	4500.00	260.00	5.93584c	(86062024)
TRS	5000.00	260.00	5.27447c	(86062024)	TRS	3658.00	270.00	8.55086c	(86082924)
TRS	4000.00	270.00	7.45769c	(86082924)	TRS	4500.00	270.00	6.49255c	(86100124)
TRS	5000.00	270.00	5.73456c	(86100124)	TRS	3962.00	280.00	7.09896c	(86083024)
TRS	4000.00	280.00	7.02066c	(86083024)	TRS	4500.00	280.00	6.07806c	(86083024)
TRS	5000.00	280.00	5.29104c	(86083024)	TRS	4572.00	290.00	5.18361c	(86110724)
TRS	5000.00	290.00	4.46893c	(86110724)	TRS	5182.00	300.00	8.77507c	(86092524)
TRS	4801.00	310.00	4.86758c	(86102524)	TRS	5000.00	310.00	4.65650c	(86102524)
TRS	4875.00	320.00	5.22430c	(86060124)	TRS	5000.00	320.00	5.07935c	(86060124)
TRS	6000.00	330.00	3.99250c	(86031224)	TRS	5500.00	340.00	3.95577c	(86082024)
TRS	5250.00	350.00	4.76519c	(86031324)	TRS	5125.00	360.00	3.83143	(86031024)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	13.90120c	(86100508)	TRS	457.00	120.00	76.47458	(86021124)
TRS	700.00	120.00	62.88699	(86040924)	TRS	1100.00	120.00	55.84597	(86051224)
TRS	1500.00	120.00	37.26860	(86041708)	TRS	2000.00	120.00	37.08323	(86082408)
TRS	2500.00	120.00	31.96995	(86082408)	TRS	3000.00	120.00	24.16613	(86082408)
TRS	3500.00	120.00	19.34094	(86041108)	TRS	4000.00	120.00	16.39606	(86041108)
TRS	4500.00	120.00	14.22665	(86041108)	TRS	5000.00	120.00	12.57447	(86041108)
TRS	457.00	130.00	98.55886c	(86112716)	TRS	700.00	130.00	66.16440	(86021124)
TRS	1100.00	130.00	44.63162c	(86053024)	TRS	1500.00	130.00	41.50533	(86040924)
TRS	2000.00	130.00	28.67940	(86040924)	TRS	2500.00	130.00	18.85496	(86020716)
TRS	3000.00	130.00	16.15248	(86020716)	TRS	3500.00	130.00	13.65998	(86020716)
TRS	4000.00	130.00	12.97688c	(86032808)	TRS	4500.00	130.00	13.44039c	(86032808)
TRS	5000.00	130.00	13.43514c	(86032808)	TRS	457.00	140.00	182.21597c	(86110308)
TRS	700.00	140.00	108.09199c	(86110308)	TRS	1100.00	140.00	48.14123	(86122024)
TRS	1500.00	140.00	29.53600	(86021124)	TRS	2000.00	140.00	24.11656	(86021124)
TRS	2500.00	140.00	18.08542	(86021124)	TRS	3000.00	140.00	14.72308c	(86101324)
TRS	3500.00	140.00	12.84973	(86030708)	TRS	4000.00	140.00	12.28348	(86030708)
TRS	4500.00	140.00	11.57287	(86030708)	TRS	5000.00	140.00	10.80061	(86030708)
TRS	457.00	150.00	79.34253c	(86042308)	TRS	700.00	150.00	115.44594c	(86110308)
TRS	1100.00	150.00	118.34749c	(86110308)	TRS	1500.00	150.00	81.06364c	(86110308)
TRS	2000.00	150.00	49.24243c	(86110308)	TRS	2500.00	150.00	31.89232c	(86110308)
TRS	3000.00	150.00	22.11828c	(86110308)	TRS	3500.00	150.00	16.20618c	(86110308)
TRS	4000.00	150.00	13.03946c	(86050308)	TRS	4500.00	150.00	12.13843c	(86050308)
TRS	5000.00	150.00	11.19482c	(86050308)	TRS	488.00	160.00	127.84612c	(86110224)
TRS	700.00	160.00	98.53113c	(86110224)	TRS	1100.00	160.00	49.70485c	(86042308)
TRS	1500.00	160.00	36.42631c	(86021524)	TRS	2000.00	160.00	35.39782c	(86021524)
TRS	2500.00	160.00	31.99567	(86120324)	TRS	3000.00	160.00	29.93935	(86120324)
TRS	3500.00	160.00	26.77768	(86120324)	TRS	4000.00	160.00	23.57483	(86120324)
TRS	4500.00	160.00	20.68466	(86120324)	TRS	5000.00	160.00	18.18755	(86120324)
TRS	533.00	170.00	77.37873	(86111316)	TRS	700.00	170.00	75.33687	(86111516)
TRS	1100.00	170.00	62.67636c	(86110224)	TRS	1500.00	170.00	49.95127c	(86110224)
TRS	2000.00	170.00	37.89570c	(86110224)	TRS	2500.00	170.00	29.43471c	(86110224)
TRS	3000.00	170.00	27.71307	(86122908)	TRS	3500.00	170.00	27.13889	(86122908)
TRS	4000.00	170.00	25.81620	(86122908)	TRS	4500.00	170.00	24.21138	(86122908)
TRS	5000.00	170.00	22.55821	(86122908)	TRS	610.00	180.00	71.71516	(86102924)
TRS	700.00	180.00	62.83718	(86122616)	TRS	1100.00	180.00	38.66353c	(86110408)
TRS	1500.00	180.00	28.99378c	(86110408)	TRS	2000.00	180.00	22.78393	(86111316)
TRS	2500.00	180.00	21.44870c	(86101508)	TRS	3000.00	180.00	19.96410c	(86101508)
TRS	3500.00	180.00	18.07883c	(86101508)	TRS	4000.00	180.00	16.23086c	(86101508)
TRS	4500.00	180.00	14.56091c	(86101508)	TRS	5000.00	180.00	13.09765c	(86101508)
TRS	750.00	190.00	67.32212	(86102924)	TRS	1100.00	190.00	58.37597	(86102924)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	45.58929	(86102924)	TRS	2000.00	190.00	33.66665	(86102924)
TRS	2500.00	190.00	25.68240	(86102924)	TRS	3000.00	190.00	20.30786	(86102924)
TRS	3500.00	190.00	16.50857	(86102924)	TRS	4000.00	190.00	14.44274c	(86092008)
TRS	4500.00	190.00	13.65625c	(86092008)	TRS	5000.00	190.00	12.86792c	(86092008)
TRS	1829.00	200.00	31.39831	(86012508)	TRS	2000.00	200.00	28.76217	(86012508)
TRS	2500.00	200.00	22.66465	(86012508)	TRS	3000.00	200.00	18.39019	(86012508)
TRS	3500.00	200.00	15.26695	(86012508)	TRS	4000.00	200.00	12.91258	(86012508)
TRS	4500.00	200.00	11.09212	(86012508)	TRS	5000.00	200.00	9.65339	(86012508)
TRS	1829.00	210.00	32.62157	(86103024)	TRS	2000.00	210.00	29.53065	(86103024)
TRS	2500.00	210.00	22.72307	(86103024)	TRS	3000.00	210.00	18.17997	(86103024)
TRS	3500.00	210.00	14.95012	(86103024)	TRS	4000.00	210.00	12.98908c	(86120724)
TRS	4500.00	210.00	11.68057c	(86120724)	TRS	5000.00	210.00	10.58515c	(86120724)
TRS	1981.00	220.00	31.29258	(86110124)	TRS	2000.00	220.00	31.00053	(86110124)
TRS	2500.00	220.00	24.62120	(86110124)	TRS	3000.00	220.00	20.12710	(86110124)
TRS	3500.00	220.00	16.82257	(86110124)	TRS	4000.00	220.00	14.31414	(86110124)
TRS	4500.00	220.00	12.36040	(86110124)	TRS	5000.00	220.00	10.80565	(86110124)
TRS	2134.00	230.00	28.95790	(86101208)	TRS	2500.00	230.00	24.82091	(86101208)
TRS	3000.00	230.00	20.51244	(86101208)	TRS	3500.00	230.00	17.27712	(86101208)
TRS	4000.00	230.00	14.78469	(86101208)	TRS	4500.00	230.00	12.82165	(86101208)
TRS	5000.00	230.00	11.24589	(86101208)	TRS	2438.00	240.00	20.62633	(86112908)
TRS	2500.00	240.00	20.05042	(86112908)	TRS	3000.00	240.00	16.19155	(86112908)
TRS	3500.00	240.00	13.37776	(86112908)	TRS	4000.00	240.00	11.26418	(86112908)
TRS	4500.00	240.00	9.63510	(86112908)	TRS	5000.00	240.00	8.35140	(86112908)
TRS	2896.00	250.00	14.62334c	(86102324)	TRS	3000.00	250.00	14.12373c	(86102324)
TRS	3500.00	250.00	12.03970c	(86102324)	TRS	4000.00	250.00	10.39014c	(86102324)
TRS	4500.00	250.00	9.06895c	(86102324)	TRS	5000.00	250.00	7.99623c	(86102324)
TRS	3048.00	260.00	14.04054c	(86062024)	TRS	3500.00	260.00	12.04382c	(86062024)
TRS	4000.00	260.00	10.27290c	(86062024)	TRS	4500.00	260.00	8.86255c	(86062024)
TRS	5000.00	260.00	7.79424	(86062008)	TRS	3658.00	270.00	18.29352	(86062124)
TRS	4000.00	270.00	16.82072	(86062124)	TRS	4500.00	270.00	14.90932	(86062124)
TRS	5000.00	270.00	13.28073	(86062124)	TRS	3962.00	280.00	13.52135c	(86083024)
TRS	4000.00	280.00	13.37081c	(86083024)	TRS	4500.00	280.00	11.54831c	(86083024)
TRS	5000.00	280.00	10.01838c	(86083024)	TRS	4572.00	290.00	10.78000c	(86101308)
TRS	5000.00	290.00	9.82913c	(86092924)	TRS	5182.00	300.00	21.59059c	(86092524)
TRS	4801.00	310.00	13.10330c	(86041824)	TRS	5000.00	310.00	13.10411c	(86041824)
TRS	4875.00	320.00	11.07420c	(86060108)	TRS	5000.00	320.00	10.85022c	(86060108)
TRS	6000.00	330.00	9.02607c	(86080324)	TRS	5500.00	340.00	8.98110c	(86082008)
TRS	5250.00	350.00	10.26215c	(86121808)	TRS	5125.00	360.00	10.86674c	(86052908)

MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN					
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	
TRS	5000.00	10.00	20.66118	(86072524)	TRS	4500.00	20.00	22.08663	(86121112)	
TRS	5000.00	20.00	19.12786	(86121112)	TRS	2500.00	30.00	39.57870c	(86082021)	
TRS	3000.00	30.00	32.48908	(86072806)	TRS	3500.00	30.00	28.20637	(86072806)	
TRS	4000.00	30.00	24.95825	(86072806)	TRS	4500.00	30.00	22.40809	(86072806)	
TRS	5000.00	30.00	20.35100	(86072806)	TRS	2500.00	40.00	34.97145	(86010303)	
TRS	3000.00	40.00	28.36758	(86010303)	TRS	3500.00	40.00	23.54185	(86010303)	
TRS	4000.00	40.00	19.90220	(86010303)	TRS	4500.00	40.00	17.08565	(86010303)	
TRS	5000.00	40.00	14.85812	(86010303)	TRS	1500.00	50.00	61.09212	(86122409)	
TRS	2000.00	50.00	46.67627	(86072803)	TRS	2500.00	50.00	37.29856	(86072803)	
TRS	3000.00	50.00	30.49865	(86072803)	TRS	3500.00	50.00	25.46533	(86072803)	
TRS	4000.00	50.00	21.63489	(86072803)	TRS	4500.00	50.00	18.65198	(86072803)	
TRS	5000.00	50.00	16.35959	(86081324)	TRS	1500.00	60.00	83.46814	(86081412)	
TRS	2000.00	60.00	62.40092	(86081412)	TRS	2500.00	60.00	47.78503	(86081412)	
TRS	3000.00	60.00	37.76598	(86081412)	TRS	3500.00	60.00	30.68017	(86081412)	
TRS	4000.00	60.00	25.48535	(86081412)	TRS	4500.00	60.00	21.56112	(86081412)	
TRS	5000.00	60.00	18.52028	(86081412)	TRS	1500.00	70.00	65.28748	(86081509)	
TRS	2000.00	70.00	37.97542	(86081509)	TRS	2500.00	70.00	24.40893	(86081509)	
TRS	3000.00	70.00	17.65265	(86070812)	TRS	3500.00	70.00	14.71309	(86031618)	
TRS	4000.00	70.00	12.71196	(86031618)	TRS	4500.00	70.00	11.08695	(86031618)	
TRS	5000.00	70.00	9.75900	(86031618)	TRS	838.00	80.00	181.85327	(86010306)	
TRS	1100.00	80.00	132.83437	(86010306)	TRS	1500.00	80.00	78.25092	(86020718)	
TRS	2000.00	80.00	60.43336	(86020718)	TRS	2500.00	80.00	45.04376	(86020718)	
TRS	3000.00	80.00	34.25620	(86020718)	TRS	3500.00	80.00	26.84523	(86020718)	
TRS	4000.00	80.00	21.57651	(86020718)	TRS	4500.00	80.00	18.57661	(86071103)	
TRS	5000.00	80.00	16.41937	(86071103)	TRS	686.00	90.00	129.31279	(86072006)	
TRS	1100.00	90.00	86.54542	(86073124)	TRS	1500.00	90.00	71.79100	(86031615)	
TRS	2000.00	90.00	48.26181	(86031615)	TRS	2500.00	90.00	48.22112c	(86071524)	
TRS	3000.00	90.00	46.37929c	(86071524)	TRS	3500.00	90.00	41.54842c	(86071524)	
TRS	4000.00	90.00	36.31089c	(86071524)	TRS	4500.00	90.00	31.53669c	(86071524)	
TRS	5000.00	90.00	27.43401c	(86071524)	TRS	533.00	100.00	145.64323	(86100506)	
TRS	700.00	100.00	136.32066	(86090524)	TRS	1100.00	100.00	112.99247	(86042724)	
TRS	1500.00	100.00	75.18511	(86040806)	TRS	2000.00	100.00	46.49392	(86072006)	
TRS	2500.00	100.00	46.81520	(86071203)	TRS	3000.00	100.00	44.03392	(86071203)	
TRS	3500.00	100.00	38.04052	(86071203)	TRS	4000.00	100.00	31.94137	(86071203)	
TRS	4500.00	100.00	27.96468	(86072006)	TRS	5000.00	100.00	24.94329	(86072006)	
TRS	457.00	110.00	146.66051	(86060912)	TRS	700.00	110.00	141.92699	(86082403)	
TRS	1100.00	110.00	89.64983	(86030124)	TRS	1500.00	110.00	81.79265c	(86112124)	
TRS	2000.00	110.00	60.42173	(86081803)	TRS	2500.00	110.00	55.66549	(86090524)	
TRS	3000.00	110.00	44.72187	(86090524)	TRS	3500.00	110.00	33.94681	(86090524)	
TRS	4000.00	110.00	25.56856	(86090524)	TRS	4500.00	110.00	23.62495c	(86092303)	

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	21.78732c	(86092303)	TRS	457.00	120.00	152.32072c	(86112118)
TRS	700.00	120.00	118.56994	(86051224)	TRS	1100.00	120.00	110.31616	(86122506)
TRS	1500.00	120.00	69.60176	(86070321)	TRS	2000.00	120.00	66.77500	(86082403)
TRS	2500.00	120.00	56.66954	(86082403)	TRS	3000.00	120.00	42.03299	(86082403)
TRS	3500.00	120.00	34.53183	(86122106)	TRS	4000.00	120.00	29.84963	(86122106)
TRS	4500.00	120.00	25.83833	(86122106)	TRS	5000.00	120.00	22.48857	(86122106)
TRS	457.00	130.00	151.54424	(86120309)	TRS	700.00	130.00	120.50824c	(86102718)
TRS	1100.00	130.00	88.56610	(86051303)	TRS	1500.00	130.00	78.80967	(86040924)
TRS	2000.00	130.00	55.77572	(86040924)	TRS	2500.00	130.00	44.36364	(86051224)
TRS	3000.00	130.00	39.07407	(86051224)	TRS	3500.00	130.00	33.94875	(86051224)
TRS	4000.00	130.00	29.48751	(86051224)	TRS	4500.00	130.00	25.93093	(86122506)
TRS	5000.00	130.00	25.93342	(86122506)	TRS	457.00	140.00	161.69604	(86120318)
TRS	700.00	140.00	125.00714	(86110306)	TRS	1100.00	140.00	77.04511	(86120309)
TRS	1500.00	140.00	46.03017	(86021224)	TRS	2000.00	140.00	38.84938	(86120324)
TRS	2500.00	140.00	36.15677c	(86101324)	TRS	3000.00	140.00	29.44617c	(86101324)
TRS	3500.00	140.00	30.19604	(86030703)	TRS	4000.00	140.00	30.41628	(86030703)
TRS	4500.00	140.00	29.44092	(86030703)	TRS	5000.00	140.00	27.89748	(86030703)
TRS	457.00	150.00	126.69869	(86030106)	TRS	700.00	150.00	118.39462	(86120324)
TRS	1100.00	150.00	105.05997c	(86110303)	TRS	1500.00	150.00	74.60109	(86042321)
TRS	2000.00	150.00	48.35338	(86042321)	TRS	2500.00	150.00	43.32988	(86031706)
TRS	3000.00	150.00	38.96054	(86031706)	TRS	3500.00	150.00	33.52585	(86031706)
TRS	4000.00	150.00	28.53997	(86031706)	TRS	4500.00	150.00	26.11996	(86010524)
TRS	5000.00	150.00	24.91866	(86010524)	TRS	488.00	160.00	122.18424	(86110218)
TRS	700.00	160.00	153.26111	(86122903)	TRS	1100.00	160.00	69.30119	(86030709)
TRS	1500.00	160.00	54.36499	(86110409)	TRS	2000.00	160.00	46.13354	(86120324)
TRS	2500.00	160.00	52.83456	(86120324)	TRS	3000.00	160.00	51.32245	(86120324)
TRS	3500.00	160.00	46.76422	(86120324)	TRS	4000.00	160.00	41.56456	(86120324)
TRS	4500.00	160.00	36.64524	(86120324)	TRS	5000.00	160.00	32.29209	(86120324)
TRS	533.00	170.00	140.30898	(86111312)	TRS	700.00	170.00	116.42463	(86111312)
TRS	1100.00	170.00	81.70949	(86111512)	TRS	1500.00	170.00	52.06247	(86111512)
TRS	2000.00	170.00	40.59081	(86110218)	TRS	2500.00	170.00	49.33385	(86122903)
TRS	3000.00	170.00	51.55400	(86122903)	TRS	3500.00	170.00	50.32631	(86122903)
TRS	4000.00	170.00	47.59976	(86122903)	TRS	4500.00	170.00	44.35966	(86122903)
TRS	5000.00	170.00	41.07317	(86122903)	TRS	610.00	180.00	120.08128	(86110103)
TRS	700.00	180.00	111.55103	(86103006)	TRS	1100.00	180.00	73.81576	(86103006)
TRS	1500.00	180.00	60.08319	(86012509)	TRS	2000.00	180.00	47.99775	(86032709)
TRS	2500.00	180.00	40.03105	(86032709)	TRS	3000.00	180.00	33.50152	(86032709)
TRS	3500.00	180.00	28.31640	(86032709)	TRS	4000.00	180.00	24.23149	(86032709)
TRS	4500.00	180.00	21.85521	(86090206)	TRS	5000.00	180.00	20.21456	(86090206)
TRS	750.00	190.00	107.48367	(86022318)	TRS	1100.00	190.00	79.71420	(86102924)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	61.17990	(86102921)	TRS	2000.00	190.00	46.18723	(86102921)
TRS	2500.00	190.00	35.72127	(86102921)	TRS	3000.00	190.00	28.95319c	(86032706)
TRS	3500.00	190.00	26.74170c	(86032706)	TRS	4000.00	190.00	24.54749c	(86032706)
TRS	4500.00	190.00	22.51515c	(86032706)	TRS	5000.00	190.00	20.68440c	(86032706)
TRS	1829.00	200.00	75.89886	(86122109)	TRS	2000.00	200.00	71.01856	(86122109)
TRS	2500.00	200.00	59.27222	(86122109)	TRS	3000.00	200.00	50.60872	(86122109)
TRS	3500.00	200.00	44.08356	(86122109)	TRS	4000.00	200.00	39.04161	(86122109)
TRS	4500.00	200.00	35.05455	(86122109)	TRS	5000.00	200.00	31.83523	(86122109)
TRS	1829.00	210.00	65.78162	(86103024)	TRS	2000.00	210.00	59.92411	(86103024)
TRS	2500.00	210.00	46.77213	(86103024)	TRS	3000.00	210.00	37.81037	(86103024)
TRS	3500.00	210.00	31.34487	(86103024)	TRS	4000.00	210.00	26.50613	(86103024)
TRS	4500.00	210.00	22.77984	(86103024)	TRS	5000.00	210.00	19.84145	(86103024)
TRS	1981.00	220.00	54.47374	(86110124)	TRS	2000.00	220.00	54.00416	(86110124)
TRS	2500.00	220.00	43.59923	(86110124)	TRS	3000.00	220.00	36.09084	(86110124)
TRS	3500.00	220.00	30.47009	(86110124)	TRS	4000.00	220.00	26.14541	(86110124)
TRS	4500.00	220.00	22.73991	(86110124)	TRS	5000.00	220.00	20.00493	(86110124)
TRS	2134.00	230.00	33.94796	(86112809)	TRS	2500.00	230.00	28.94989	(86112809)
TRS	3000.00	230.00	23.80338	(86112809)	TRS	3500.00	230.00	19.97820	(86112809)
TRS	4000.00	230.00	17.05386	(86112809)	TRS	4500.00	230.00	14.76413	(86112809)
TRS	5000.00	230.00	12.93450	(86112809)	TRS	2438.00	240.00	31.66131	(86112906)
TRS	2500.00	240.00	30.78216	(86112906)	TRS	3000.00	240.00	24.88192	(86112906)
TRS	3500.00	240.00	20.56921	(86112906)	TRS	4000.00	240.00	17.32394	(86112906)
TRS	4500.00	240.00	14.81922	(86112906)	TRS	5000.00	240.00	12.84357	(86112906)
TRS	2896.00	250.00	18.04714	(86120124)	TRS	3000.00	250.00	17.32447	(86120124)
TRS	3500.00	250.00	15.81657	(86050424)	TRS	4000.00	250.00	14.51899	(86050424)
TRS	4500.00	250.00	13.31559	(86050424)	TRS	5000.00	250.00	12.23965	(86050424)
TRS	3048.00	260.00	28.22007	(86050421)	TRS	3500.00	260.00	23.86986	(86050421)
TRS	4000.00	260.00	20.23532	(86062324)	TRS	4500.00	260.00	18.44977	(86062324)
TRS	5000.00	260.00	16.83963	(86062324)	TRS	3658.00	270.00	29.22077	(86090821)
TRS	4000.00	270.00	27.67403	(86090821)	TRS	4500.00	270.00	25.43751	(86090821)
TRS	5000.00	270.00	23.33657	(86090821)	TRS	3962.00	280.00	25.37834	(86100106)
TRS	4000.00	280.00	25.23485	(86100106)	TRS	4500.00	280.00	23.20252	(86100106)
TRS	5000.00	280.00	21.11854	(86100106)	TRS	4572.00	290.00	23.15813	(86092621)
TRS	5000.00	290.00	21.62498	(86092621)	TRS	5182.00	300.00	21.59855	(86060121)
TRS	4801.00	310.00	22.70621c	(86112003)	TRS	5000.00	310.00	21.76833	(86090921)
TRS	4875.00	320.00	22.11463c	(86060103)	TRS	5000.00	320.00	21.66789c	(86060103)
TRS	6000.00	330.00	18.05214	(86080321)	TRS	5500.00	340.00	15.54419	(86051906)
TRS	5250.00	350.00	21.04517	(86052024)	TRS	5125.00	360.00	16.92584	(86072624)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS :	5000.00	110.00	65.36195	(86092301)	TRS :	457.00	120.00	285.98251	(86100417)
TRS :	700.00	120.00	240.50671	(86080216)	TRS :	1100.00	120.00	165.99168	(86061404)
TRS :	1500.00	120.00	153.78252	(86051224)	TRS :	2000.00	120.00	125.07154	(86121121)
TRS :	2500.00	120.00	95.53883	(86121121)	TRS :	3000.00	120.00	79.76096	(86062011)
TRS :	3500.00	120.00	72.04404	(86030906)	TRS :	4000.00	120.00	71.32146	(86030906)
TRS :	4500.00	120.00	67.74821	(86030906)	TRS :	5000.00	120.00	63.00948	(86030906)
TRS :	457.00	130.00	254.51454	(86090305)	TRS :	700.00	130.00	224.30295	(86082908)
TRS :	1100.00	130.00	192.15883	(86071217)	TRS :	1500.00	130.00	128.90688	(86051301)
TRS :	2000.00	130.00	98.47607	(86022605)	TRS :	2500.00	130.00	92.97485	(86062621)
TRS :	3000.00	130.00	95.67054	(86062621)	TRS :	3500.00	130.00	87.55306	(86062621)
TRS :	4000.00	130.00	76.39840	(86062621)	TRS :	4500.00	130.00	65.48175	(86062621)
TRS :	5000.00	130.00	55.88008	(86062621)	TRS :	457.00	140.00	257.38635	(86101617)
TRS :	700.00	140.00	235.91141	(86080919)	TRS :	1100.00	140.00	181.63020	(86090609)
TRS :	1500.00	140.00	133.74644	(86102619)	TRS :	2000.00	140.00	116.54813	(86120324)
TRS :	2500.00	140.00	108.47032	(86101322)	TRS :	3000.00	140.00	88.33850	(86101322)
TRS :	3500.00	140.00	68.10835	(86101322)	TRS :	4000.00	140.00	57.38309	(86030801)
TRS :	4500.00	140.00	53.77146	(86030801)	TRS :	5000.00	140.00	53.25282	(86031622)
TRS :	457.00	150.00	245.53308	(86083015)	TRS :	700.00	150.00	218.87169	(86022009)
TRS :	1100.00	150.00	169.62854	(86010217)	TRS :	1500.00	150.00	137.91777	(86021701)
TRS :	2000.00	150.00	105.42145	(86032607)	TRS :	2500.00	150.00	86.61774	(86032607)
TRS :	3000.00	150.00	69.63285	(86032607)	TRS :	3500.00	150.00	62.45717	(86050302)
TRS :	4000.00	150.00	59.21568	(86050302)	TRS :	4500.00	150.00	55.31934	(86021705)
TRS :	5000.00	150.00	54.39844	(86021705)	TRS :	488.00	160.00	222.25034	(86022315)
TRS :	700.00	160.00	292.54263	(86020809)	TRS :	1100.00	160.00	163.66685	(86092816)
TRS :	1500.00	160.00	133.36894	(86021520)	TRS :	2000.00	160.00	103.71950	(86021520)
TRS :	2500.00	160.00	82.18194	(86120322)	TRS :	3000.00	160.00	81.42888	(86021702)
TRS :	3500.00	160.00	78.97121	(86021702)	TRS :	4000.00	160.00	73.52955	(86021702)
TRS :	4500.00	160.00	67.20938	(86021702)	TRS :	5000.00	160.00	60.96416	(86021702)
TRS :	533.00	170.00	241.89644	(86080820)	TRS :	700.00	170.00	227.32802	(86080820)
TRS :	1100.00	170.00	164.14104	(86100708)	TRS :	1500.00	170.00	127.52430	(86010407)
TRS :	2000.00	170.00	113.32838	(86020809)	TRS :	2500.00	170.00	104.54935	(86020809)
TRS :	3000.00	170.00	94.60798	(86020809)	TRS :	3500.00	170.00	85.50771	(86020809)
TRS :	4000.00	170.00	77.62202	(86020809)	TRS :	4500.00	170.00	70.88566	(86020809)
TRS :	5000.00	170.00	65.13366	(86020809)	TRS :	610.00	180.00	215.80756	(86110403)
TRS :	700.00	180.00	204.38063	(86110119)	TRS :	1100.00	180.00	161.79964	(86110906)
TRS :	1500.00	180.00	118.62498	(86090205)	TRS :	2000.00	180.00	97.29037	(86102306)
TRS :	2500.00	180.00	86.54879	(86032707)	TRS :	3000.00	180.00	76.16650	(86032707)
TRS :	3500.00	180.00	66.53470	(86032707)	TRS :	4000.00	180.00	58.29252	(86032707)
TRS :	4500.00	180.00	52.89758	(86051001)	TRS :	5000.00	180.00	49.01255	(86051001)
TRS :	750.00	190.00	198.62921	(86022317)	TRS :	1100.00	190.00	160.70621	(86112217)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	120.02905	(86110202)	TRS	2000.00	190.00	93.40616	(86032705)
TRS	2500.00	190.00	92.32203	(86032705)	TRS	3000.00	190.00	86.85956	(86032705)
TRS	3500.00	190.00	80.22510	(86032705)	TRS	4000.00	190.00	73.64247	(86032705)
TRS	4500.00	190.00	67.54544	(86032705)	TRS	5000.00	190.00	62.05321	(86032705)
TRS	1829.00	200.00	141.13850	(86111308)	TRS	2000.00	200.00	130.24756	(86122108)
TRS	2500.00	200.00	110.85709	(86122108)	TRS	3000.00	200.00	96.33392	(86122108)
TRS	3500.00	200.00	85.19354	(86122108)	TRS	4000.00	200.00	76.41099	(86122108)
TRS	4500.00	200.00	69.31824	(86122108)	TRS	5000.00	200.00	63.47312	(86122108)
TRS	1829.00	210.00	102.81306	(86101221)	TRS	2000.00	210.00	96.47012	(86101221)
TRS	2500.00	210.00	81.58855	(86101221)	TRS	3000.00	210.00	71.93173	(86091804)
TRS	3500.00	210.00	64.50438	(86091804)	TRS	4000.00	210.00	58.34848	(86091804)
TRS	4500.00	210.00	53.17025	(86091804)	TRS	5000.00	210.00	48.75879	(86091804)
TRS	1981.00	220.00	70.29879	(86052308)	TRS	2000.00	220.00	69.74683	(86052308)
TRS	2500.00	220.00	57.25647	(86052308)	TRS	3000.00	220.00	48.12707	(86010403)
TRS	3500.00	220.00	41.97483	(86010403)	TRS	4000.00	220.00	36.83015	(86010403)
TRS	4500.00	220.00	32.54601	(86010403)	TRS	5000.00	220.00	28.96647	(86010403)
TRS	2134.00	230.00	71.55271	(86051305)	TRS	2500.00	230.00	62.49814	(86051305)
TRS	3000.00	230.00	52.63084	(86051305)	TRS	3500.00	230.00	44.96878	(86051305)
TRS	4000.00	230.00	38.91859	(86051305)	TRS	4500.00	230.00	34.06219	(86051305)
TRS	5000.00	230.00	30.10470	(86051305)	TRS	2438.00	240.00	59.55117	(86101108)
TRS	2500.00	240.00	58.68847	(86101108)	TRS	3000.00	240.00	52.32769	(86101108)
TRS	3500.00	240.00	46.98968	(86101108)	TRS	4000.00	240.00	42.53503	(86101108)
TRS	4500.00	240.00	38.80490	(86101108)	TRS	5000.00	240.00	35.65885	(86101108)
TRS	2896.00	250.00	52.54018	(86061822)	TRS	3000.00	250.00	51.25086	(86061822)
TRS	3500.00	250.00	45.46815	(86061822)	TRS	4000.00	250.00	40.44856	(86061822)
TRS	4500.00	250.00	36.76531	(86121918)	TRS	5000.00	250.00	34.05449	(86121918)
TRS	3048.00	260.00	74.12283	(86080824)	TRS	3500.00	260.00	66.88125	(86080824)
TRS	4000.00	260.00	59.11082	(86080824)	TRS	4500.00	260.00	52.18713	(86080824)
TRS	5000.00	260.00	46.21771	(86080824)	TRS	3658.00	270.00	76.15004	(86083008)
TRS	4000.00	270.00	69.58184	(86083008)	TRS	4500.00	270.00	61.53996	(86083008)
TRS	5000.00	270.00	58.33226	(86042003)	TRS	3962.00	280.00	76.13503	(86100104)
TRS	4000.00	280.00	75.70455	(86100104)	TRS	4500.00	280.00	69.60757	(86100104)
TRS	5000.00	280.00	63.35563	(86100104)	TRS	4572.00	290.00	44.16923	(86092920)
TRS	5000.00	290.00	43.46205	(86092920)	TRS	5182.00	300.00	49.38298	(86062321)
TRS	4801.00	310.00	52.26944	(86120823)	TRS	5000.00	310.00	50.59088	(86120823)
TRS	4875.00	320.00	66.34389	(86060103)	TRS	5000.00	320.00	65.00368	(86060103)
TRS	6000.00	330.00	42.27502	(86100706)	TRS	5500.00	340.00	46.46246	(86092721)
TRS	5250.00	350.00	59.89844	(86021902)	TRS	5125.00	360.00	50.77753	(86072623)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS 6.36906 AT (	524.90, -92.55,	0.00, 0.00)	DP NA
	2ND HIGHEST VALUE IS 5.75886 AT (	429.44, -156.30,	0.00, 0.00)	DP NA
	3RD HIGHEST VALUE IS 5.17210 AT (	350.08, -293.75,	0.00, 0.00)	DP NA
	4TH HIGHEST VALUE IS 5.14502 AT (	686.00, 0.00,	0.00, 0.00)	DP NA
	5TH HIGHEST VALUE IS 5.10965 AT (	395.77, -228.50,	0.00, 0.00)	DP NA
	6TH HIGHEST VALUE IS 4.99682 AT (	293.75, -350.08,	0.00, 0.00)	DP NA
	7TH HIGHEST VALUE IS 4.88812 AT (	689.37, -121.55,	0.00, 0.00)	DP NA
	8TH HIGHEST VALUE IS 4.47669 AT (	228.50, -395.77,	0.00, 0.00)	DP NA
	9TH HIGHEST VALUE IS 4.30605 AT (	657.78, -239.41,	0.00, 0.00)	DP NA
	10TH HIGHEST VALUE IS 4.24810 AT (	825.27, 145.52,	0.00, 0.00)	DP NA

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 59.71733c	ON 86122024	AT (350.08, -293.75, 0.00, 0.00)	DP	NA

- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS 182.21597c	ON 86110308: AT (293.75, -350.08, 0.00, 0.00)	DP	NA
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*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	181.85327	ON 86010306: AT (825.27, 145.52, 0.00, 0.00)	DP	NA
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** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	NETWORK OF TYPE	GRID-ID
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L	HIGH 1ST HIGH VALUE IS	297.65952	ON 86062621: AT (429.44, -156.30, 0.00, 0.00)	DP	NA
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*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC RURAL FLAT DFAULT

NOCMPL

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
Total of 1 Warning Message(s)
A Total of 1812 Informational Message(s)

Total of 1812 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
SO W320 27 PPARM :Input Parameter May Be Out-of-Range for Parameter QS

*** ISCST3 Finishes Successfully ***

CO STARTING
 CO TITLEONE 1987 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 BLEACH PLANT BYPASS STACK
 SO LOCATION BLCHSCRB POINT 109.3 141.5 .0
 SO LOCATION TRS POINT 0.0 0.0 .0

Source Parameter Cards:

** POINT: SRCID QS HS TS VS DS
 ** VOLUME: SRCID QS HS SYINIT SZINIT
 ** AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22
 SO SRCPARAM TRS 0.00 76.2 533.2 32.03 0.94

BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)
 SO SRCGROUP ALL
 SO FINISHED

STARTING

** RECEPTOR ORIGIN IS TRS INCINERATOR STACK

DISCPOLR TRS 5000.00 10.00
 DISCPOLR TRS 4500.00 20.00
 RE DISCPOLR TRS 5000.00 20.00
 RE DISCPOLR TRS 2500.00 30.00
 DISCPOLR TRS 3000.00 30.00
 DISCPOLR TRS 3500.00 30.00
 RE DISCPOLR TRS 4000.00 30.00
 DISCPOLR TRS 4500.00 30.00
 DISCPOLR TRS 5000.00 30.00
 RE DISCPOLR TRS 2500.00 40.00

RE DISCPOLR TRS	3000.00	40.00
RE DISCPOLR TRS	3500.00	40.00
RE DISCPOLR TRS	4000.00	40.00
RE DISCPOLR TRS	4500.00	40.00
RE DISCPOLR TRS	5000.00	40.00
RE DISCPOLR TRS	1500.00	50.00
RE DISCPOLR TRS	2000.00	50.00
RE DISCPOLR TRS	2500.00	50.00
RE DISCPOLR TRS	3000.00	50.00
RE DISCPOLR TRS	3500.00	50.00
RE DISCPOLR TRS	4000.00	50.00
RE DISCPOLR TRS	4500.00	50.00
RE DISCPOLR TRS	5000.00	50.00
RE DISCPOLR TRS	1500.00	60.00
RE DISCPOLR TRS	2000.00	60.00
RE DISCPOLR TRS	2500.00	60.00
RE DISCPOLR TRS	3000.00	60.00
RE DISCPOLR TRS	3500.00	60.00
RE DISCPOLR TRS	4000.00	60.00
RE DISCPOLR TRS	4500.00	60.00
RE DISCPOLR TRS	5000.00	60.00
RE DISCPOLR TRS	1500.00	70.00
RE DISCPOLR TRS	2000.00	70.00
RE DISCPOLR TRS	2500.00	70.00
RE DISCPOLR TRS	3000.00	70.00
RE DISCPOLR TRS	3500.00	70.00
RE DISCPOLR TRS	4000.00	70.00
RE DISCPOLR TRS	4500.00	70.00
RE DISCPOLR TRS	5000.00	70.00
RE DISCPOLR TRS	838.00	80.00
RE DISCPOLR TRS	1100.00	80.00
RE DISCPOLR TRS	1500.00	80.00
RE DISCPOLR TRS	2000.00	80.00
RE DISCPOLR TRS	2500.00	80.00
RE DISCPOLR TRS	3000.00	80.00
RE DISCPOLR TRS	3500.00	80.00
RE DISCPOLR TRS	4000.00	80.00
RE DISCPOLR TRS	4500.00	80.00
RE DISCPOLR TRS	5000.00	80.00
RE DISCPOLR TRS	686.00	90.00
RE DISCPOLR TRS	1100.00	90.00
RE DISCPOLR TRS	1500.00	90.00
RE DISCPOLR TRS	2000.00	90.00
RE DISCPOLR TRS	2500.00	90.00
RE DISCPOLR TRS	3000.00	90.00
RE DISCPOLR TRS	3500.00	90.00
RE DISCPOLR TRS	4000.00	90.00
RE DISCPOLR TRS	4500.00	90.00
RE DISCPOLR TRS	5000.00	90.00
RE DISCPOLR TRS	533.00	100.00
RE DISCPOLR TRS	700.00	100.00
RE DISCPOLR TRS	1100.00	100.00
RE DISCPOLR TRS	1500.00	100.00
RE DISCPOLR TRS	2000.00	100.00
RE DISCPOLR TRS	2500.00	100.00
RE DISCPOLR TRS	3000.00	100.00
RE DISCPOLR TRS	3500.00	100.00
RE DISCPOLR TRS	4000.00	100.00
RE DISCPOLR TRS	4500.00	100.00
RE DISCPOLR TRS	5000.00	100.00

RE DISCPOLR TRS	457.00	110.00
RE DISCPOLR TRS	700.00	110.00
RE DISCPOLR TRS	1100.00	110.00
RE DISCPOLR TRS	1500.00	110.00
RE DISCPOLR TRS	2000.00	110.00
RE DISCPOLR TRS	2500.00	110.00
RE DISCPOLR TRS	3000.00	110.00
RE DISCPOLR TRS	3500.00	110.00
RE DISCPOLR TRS	4000.00	110.00
RE DISCPOLR TRS	4500.00	110.00
RE DISCPOLR TRS	5000.00	110.00
RE DISCPOLR TRS	457.00	120.00
RE DISCPOLR TRS	700.00	120.00
RE DISCPOLR TRS	1100.00	120.00
RE DISCPOLR TRS	1500.00	120.00
RE DISCPOLR TRS	2000.00	120.00
RE DISCPOLR TRS	2500.00	120.00
RE DISCPOLR TRS	3000.00	120.00
RE DISCPOLR TRS	3500.00	120.00
RE DISCPOLR TRS	4000.00	120.00
RE DISCPOLR TRS	4500.00	120.00
RE DISCPOLR TRS	5000.00	120.00
RE DISCPOLR TRS	457.00	130.00
RE DISCPOLR TRS	700.00	130.00
RE DISCPOLR TRS	1100.00	130.00
RE DISCPOLR TRS	1500.00	130.00
RE DISCPOLR TRS	2000.00	130.00
RE DISCPOLR TRS	2500.00	130.00
RE DISCPOLR TRS	3000.00	130.00
RE DISCPOLR TRS	3500.00	130.00
RE DISCPOLR TRS	4000.00	130.00
RE DISCPOLR TRS	4500.00	130.00
RE DISCPOLR TRS	5000.00	130.00
RE DISCPOLR TRS	457.00	140.00
RE DISCPOLR TRS	700.00	140.00
RE DISCPOLR TRS	1100.00	140.00
RE DISCPOLR TRS	1500.00	140.00
RE DISCPOLR TRS	2000.00	140.00
RE DISCPOLR TRS	2500.00	140.00
RE DISCPOLR TRS	3000.00	140.00
RE DISCPOLR TRS	3500.00	140.00
RE DISCPOLR TRS	4000.00	140.00
RE DISCPOLR TRS	4500.00	140.00
RE DISCPOLR TRS	5000.00	140.00
RE DISCPOLR TRS	457.00	150.00
RE DISCPOLR TRS	700.00	150.00
RE DISCPOLR TRS	1100.00	150.00
RE DISCPOLR TRS	1500.00	150.00
RE DISCPOLR TRS	2000.00	150.00
RE DISCPOLR TRS	2500.00	150.00
RE DISCPOLR TRS	3000.00	150.00
RE DISCPOLR TRS	3500.00	150.00
RE DISCPOLR TRS	4000.00	150.00
RE DISCPOLR TRS	4500.00	150.00
RE DISCPOLR TRS	5000.00	150.00
RE DISCPOLR TRS	488.00	160.00
RE DISCPOLR TRS	700.00	160.00
RE DISCPOLR TRS	1100.00	160.00
RE DISCPOLR TRS	1500.00	160.00
RE DISCPOLR TRS	2000.00	160.00

RE DISCPOLR TRS	2500.00	160.00
RE DISCPOLR TRS	3000.00	160.00
RE DISCPOLR TRS	3500.00	160.00
RE DISCPOLR TRS	4000.00	160.00
RE DISCPOLR TRS	4500.00	160.00
RE DISCPOLR TRS	5000.00	160.00
RE DISCPOLR TRS	533.00	170.00
RE DISCPOLR TRS	700.00	170.00
RE DISCPOLR TRS	1100.00	170.00
RE DISCPOLR TRS	1500.00	170.00
RE DISCPOLR TRS	2000.00	170.00
RE DISCPOLR TRS	2500.00	170.00
RE DISCPOLR TRS	3000.00	170.00
RE DISCPOLR TRS	3500.00	170.00
RE DISCPOLR TRS	4000.00	170.00
RE DISCPOLR TRS	4500.00	170.00
RE DISCPOLR TRS	5000.00	170.00
RE DISCPOLR TRS	610.00	180.00
RE DISCPOLR TRS	700.00	180.00
RE DISCPOLR TRS	1100.00	180.00
RE DISCPOLR TRS	1500.00	180.00
RE DISCPOLR TRS	2000.00	180.00
RE DISCPOLR TRS	2500.00	180.00
RE DISCPOLR TRS	3000.00	180.00
RE DISCPOLR TRS	3500.00	180.00
RE DISCPOLR TRS	4000.00	180.00
RE DISCPOLR TRS	4500.00	180.00
RE DISCPOLR TRS	5000.00	180.00
RE DISCPOLR TRS	750.00	190.00
RE DISCPOLR TRS	1100.00	190.00
RE DISCPOLR TRS	1500.00	190.00
RE DISCPOLR TRS	2000.00	190.00
RE DISCPOLR TRS	2500.00	190.00
RE DISCPOLR TRS	3000.00	190.00
RE DISCPOLR TRS	3500.00	190.00
RE DISCPOLR TRS	4000.00	190.00
RE DISCPOLR TRS	4500.00	190.00
RE DISCPOLR TRS	5000.00	190.00
RE DISCPOLR TRS	1829.00	200.00
RE DISCPOLR TRS	2000.00	200.00
RE DISCPOLR TRS	2500.00	200.00
RE DISCPOLR TRS	3000.00	200.00
RE DISCPOLR TRS	3500.00	200.00
RE DISCPOLR TRS	4000.00	200.00
RE DISCPOLR TRS	4500.00	200.00
RE DISCPOLR TRS	5000.00	200.00
RE DISCPOLR TRS	1829.00	210.00
RE DISCPOLR TRS	2000.00	210.00
RE DISCPOLR TRS	2500.00	210.00
RE DISCPOLR TRS	3000.00	210.00
RE DISCPOLR TRS	3500.00	210.00
RE DISCPOLR TRS	4000.00	210.00
RE DISCPOLR TRS	4500.00	210.00
RE DISCPOLR TRS	5000.00	210.00
RE DISCPOLR TRS	1981.00	220.00
RE DISCPOLR TRS	2000.00	220.00
RE DISCPOLR TRS	2500.00	220.00
RE DISCPOLR TRS	3000.00	220.00
RE DISCPOLR TRS	3500.00	220.00
RE DISCPOLR TRS	4000.00	220.00

RE DISCPOLR TRS 4500.00 220.00
RE DISCPOLR TRS 5000.00 220.00
RE DISCPOLR TRS 2134.00 230.00
RE DISCPOLR TRS 2500.00 230.00
RE DISCPOLR TRS 3000.00 230.00
RE DISCPOLR TRS 3500.00 230.00
RE DISCPOLR TRS 4000.00 230.00
RE DISCPOLR TRS 4500.00 230.00
RE DISCPOLR TRS 5000.00 230.00
RE DISCPOLR TRS 2438.00 240.00
RE DISCPOLR TRS 2500.00 240.00
RE DISCPOLR TRS 3000.00 240.00
RE DISCPOLR TRS 3500.00 240.00
RE DISCPOLR TRS 4000.00 240.00
RE DISCPOLR TRS 4500.00 240.00
RE DISCPOLR TRS 5000.00 240.00
RE DISCPOLR TRS 2896.00 250.00
RE DISCPOLR TRS 3000.00 250.00
RE DISCPOLR TRS 3500.00 250.00
RE DISCPOLR TRS 4000.00 250.00
RE DISCPOLR TRS 4500.00 250.00
RE DISCPOLR TRS 5000.00 250.00
RE DISCPOLR TRS 3048.00 260.00
RE DISCPOLR TRS 3500.00 260.00
RE DISCPOLR TRS 4000.00 260.00
RE DISCPOLR TRS 4500.00 260.00
RE DISCPOLR TRS 5000.00 260.00
RE DISCPOLR TRS 3658.00 270.00
RE DISCPOLR TRS 4000.00 270.00
RE DISCPOLR TRS 4500.00 270.00
RE DISCPOLR TRS 5000.00 270.00
RE DISCPOLR TRS 3962.00 280.00
RE DISCPOLR TRS 4000.00 280.00
RE DISCPOLR TRS 4500.00 280.00
RE DISCPOLR TRS 5000.00 280.00
RE DISCPOLR TRS 4572.00 290.00
RE DISCPOLR TRS 5000.00 290.00
RE DISCPOLR TRS 5182.00 300.00
RE DISCPOLR TRS 4801.00 310.00
RE DISCPOLR TRS 5000.00 310.00
RE DISCPOLR TRS 4875.00 320.00
RE DISCPOLR TRS 5000.00 320.00
RE DISCPOLR TRS 6000.00 330.00
RE DISCPOLR TRS 5500.00 340.00
RE DISCPOLR TRS 5250.00 350.00
RE DISCPOLR TRS 5125.00 360.00

RE FINISHED

ME STARTING

ME INPUTFIL S:\MET\GNSPRL87.BIN

UNFORM

ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1987 JACKSONVILLE

ME UAIRDATA 13861 1987 WAYCROSS

WINDCATS 1.50 3.10 5.10 8.20 10.80

ME FINISHED

ME STARTING

OU RECTABLE ALLAVE FIRST

FINISHED

*** Message Summary For ISC3 Model Setup ***

----- Summary of Total Messages -----

Total of	0 Fatal Error Message(s)
A Total of	1 Warning Message(s)
A Total of	0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
W320 27 PPARAM :Input Parameter May Be Out-of-Range for Parameter QS

* SETUP Finishes Successfully ***

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE	
											SCALAR	VARY BY
BLCHSCRB	0	0.80000E+01	109.3	141.5	0.0	36.00	338.70	9.30	1.22	YES		
TRS	0	0.00000E+00	0.0	0.0	0.0	76.20	533.20	32.03	0.94	NO		

*** ISCST3 - VERSION 98356 ***

*** 1987 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK
*** MAXIMUM FUTURE CO EMISSION RATE

12/11/98 ***

01/28/99
11:34:49
PAGE 3
NOCMPL

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCR, TRS ,

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR8

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK				
1	25.8	102.6	0	2	25.8	103.7	0	3	25.8	101.6	0	4	19.0	29.4	0	5	21.6	36.0	0	6	21.6	35.4	0
7	21.6	37.9	0	8	25.8	100.8	0	9	25.8	103.5	0	10	25.8	103.0	0	11	25.8	99.4	0	12	25.8	92.8	0
13	25.8	83.3	0	14	25.8	71.3	0	15	25.8	68.7	0	16	25.8	81.1	0	17	25.8	91.1	0	18	25.8	98.3	0
19	25.8	102.6	0	20	25.8	103.7	0	21	25.8	101.6	0	22	19.0	29.4	0	23	21.6	178.9	0	24	21.5	97.9	0
25	22.3	90.3	0	26	25.8	100.8	0	27	25.8	103.5	0	28	25.8	103.0	0	29	25.8	99.4	0	30	25.8	92.8	0
31	25.8	83.3	0	32	25.8	71.3	0	33	25.8	68.7	0	34	25.8	81.1	0	35	25.8	91.1	0	36	25.8	98.3	0

MODELOPTs: CONC

RURAL FLAT DFAULT

PAGE 5
NOCMPL

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	5000.0,	10.0,	0.0,	0.0);	TRS	:	(	4500.0,	20.0,	0.0,	0.0);
TRS	:	(	5000.0,	20.0,	0.0,	0.0);	TRS	:	(	2500.0,	30.0,	0.0,	0.0);
TRS	:	(	3000.0,	30.0,	0.0,	0.0);	TRS	:	(	3500.0,	30.0,	0.0,	0.0);
TRS	:	(	4000.0,	30.0,	0.0,	0.0);	TRS	:	(	4500.0,	30.0,	0.0,	0.0);
TRS	:	(	5000.0,	30.0,	0.0,	0.0);	TRS	:	(	2500.0,	40.0,	0.0,	0.0);
TRS	:	(	3000.0,	40.0,	0.0,	0.0);	TRS	:	(	3500.0,	40.0,	0.0,	0.0);
TRS	:	(	4000.0,	40.0,	0.0,	0.0);	TRS	:	(	4500.0,	40.0,	0.0,	0.0);
TRS	:	(	5000.0,	40.0,	0.0,	0.0);	TRS	:	(	1500.0,	50.0,	0.0,	0.0);
TRS	:	(	2000.0,	50.0,	0.0,	0.0);	TRS	:	(	2500.0,	50.0,	0.0,	0.0);
TRS	:	(	3000.0,	50.0,	0.0,	0.0);	TRS	:	(	3500.0,	50.0,	0.0,	0.0);
TRS	:	(	4000.0,	50.0,	0.0,	0.0);	TRS	:	(	4500.0,	50.0,	0.0,	0.0);
TRS	:	(	5000.0,	50.0,	0.0,	0.0);	TRS	:	(	1500.0,	60.0,	0.0,	0.0);
TRS	:	(	2000.0,	60.0,	0.0,	0.0);	TRS	:	(	2500.0,	60.0,	0.0,	0.0);
TRS	:	(	3000.0,	60.0,	0.0,	0.0);	TRS	:	(	3500.0,	60.0,	0.0,	0.0);
TRS	:	(	4000.0,	60.0,	0.0,	0.0);	TRS	:	(	4500.0,	60.0,	0.0,	0.0);
TRS	:	(	5000.0,	60.0,	0.0,	0.0);	TRS	:	(	1500.0,	70.0,	0.0,	0.0);
TRS	:	(	2000.0,	70.0,	0.0,	0.0);	TRS	:	(	2500.0,	70.0,	0.0,	0.0);
TRS	:	(	3000.0,	70.0,	0.0,	0.0);	TRS	:	(	3500.0,	70.0,	0.0,	0.0);
TRS	:	(	4000.0,	70.0,	0.0,	0.0);	TRS	:	(	4500.0,	70.0,	0.0,	0.0);
TRS	:	(	5000.0,	70.0,	0.0,	0.0);	TRS	:	(	838.0,	80.0,	0.0,	0.0);
TRS	:	(	1100.0,	80.0,	0.0,	0.0);	TRS	:	(	1500.0,	80.0,	0.0,	0.0);
TRS	:	(	2000.0,	80.0,	0.0,	0.0);	TRS	:	(	2500.0,	80.0,	0.0,	0.0);
TRS	:	(	3000.0,	80.0,	0.0,	0.0);	TRS	:	(	3500.0,	80.0,	0.0,	0.0);
TRS	:	(	4000.0,	80.0,	0.0,	0.0);	TRS	:	(	4500.0,	80.0,	0.0,	0.0);
TRS	:	(	5000.0,	80.0,	0.0,	0.0);	TRS	:	(	686.0,	90.0,	0.0,	0.0);
TRS	:	(	1100.0,	90.0,	0.0,	0.0);	TRS	:	(	1500.0,	90.0,	0.0,	0.0);
TRS	:	(	2000.0,	90.0,	0.0,	0.0);	TRS	:	(	2500.0,	90.0,	0.0,	0.0);
TRS	:	(	3000.0,	90.0,	0.0,	0.0);	TRS	:	(	3500.0,	90.0,	0.0,	0.0);
TRS	:	(	4000.0,	90.0,	0.0,	0.0);	TRS	:	(	4500.0,	90.0,	0.0,	0.0);
TRS	:	(	5000.0,	90.0,	0.0,	0.0);	TRS	:	(	533.0,	100.0,	0.0,	0.0);
TRS	:	(	700.0,	100.0,	0.0,	0.0);	TRS	:	(	1100.0,	100.0,	0.0,	0.0);
TRS	:	(	1500.0,	100.0,	0.0,	0.0);	TRS	:	(	2000.0,	100.0,	0.0,	0.0);
TRS	:	(	2500.0,	100.0,	0.0,	0.0);	TRS	:	(	3000.0,	100.0,	0.0,	0.0);
TRS	:	(	3500.0,	100.0,	0.0,	0.0);	TRS	:	(	4000.0,	100.0,	0.0,	0.0);
TRS	:	(	4500.0,	100.0,	0.0,	0.0);	TRS	:	(	5000.0,	100.0,	0.0,	0.0);
TRS	:	(	457.0,	110.0,	0.0,	0.0);	TRS	:	(	700.0,	110.0,	0.0,	0.0);
TRS	:	(	1100.0,	110.0,	0.0,	0.0);	TRS	:	(	1500.0,	110.0,	0.0,	0.0);
TRS	:	(	2000.0,	110.0,	0.0,	0.0);	TRS	:	(	2500.0,	110.0,	0.0,	0.0);
TRS	:	(	3000.0,	110.0,	0.0,	0.0);	TRS	:	(	3500.0,	110.0,	0.0,	0.0);
TRS	:	(	4000.0,	110.0,	0.0,	0.0);	TRS	:	(	4500.0,	110.0,	0.0,	0.0);
TRS	:	(	5000.0,	110.0,	0.0,	0.0);	TRS	:	(	457.0,	120.0,	0.0,	0.0);
TRS	:	(	700.0,	120.0,	0.0,	0.0);	TRS	:	(	1100.0,	120.0,	0.0,	0.0);
TRS	:	(	1500.0,	120.0,	0.0,	0.0);	TRS	:	(	2000.0,	120.0,	0.0,	0.0);
TRS	:	(	2500.0,	120.0,	0.0,	0.0);	TRS	:	(	3000.0,	120.0,	0.0,	0.0);
TRS	:	(	3500.0,	120.0,	0.0,	0.0);	TRS	:	(	4000.0,	120.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	4500.0,	120.0,	0.0,	0.0);	TRS	:	(	5000.0,	120.0,	0.0,	0.0);
TRS	:	(	457.0,	130.0,	0.0,	0.0);	TRS	:	(	700.0,	130.0,	0.0,	0.0);
TRS	:	(	1100.0,	130.0,	0.0,	0.0);	TRS	:	(	1500.0,	130.0,	0.0,	0.0);
TRS	:	(	2000.0,	130.0,	0.0,	0.0);	TRS	:	(	2500.0,	130.0,	0.0,	0.0);
TRS	:	(	3000.0,	130.0,	0.0,	0.0);	TRS	:	(	3500.0,	130.0,	0.0,	0.0);
TRS	:	(	4000.0,	130.0,	0.0,	0.0);	TRS	:	(	4500.0,	130.0,	0.0,	0.0);
TRS	:	(	5000.0,	130.0,	0.0,	0.0);	TRS	:	(	457.0,	140.0,	0.0,	0.0);
TRS	:	(	700.0,	140.0,	0.0,	0.0);	TRS	:	(	1100.0,	140.0,	0.0,	0.0);
TRS	:	(	1500.0,	140.0,	0.0,	0.0);	TRS	:	(	2000.0,	140.0,	0.0,	0.0);
TRS	:	(	2500.0,	140.0,	0.0,	0.0);	TRS	:	(	3000.0,	140.0,	0.0,	0.0);
TRS	:	(	3500.0,	140.0,	0.0,	0.0);	TRS	:	(	4000.0,	140.0,	0.0,	0.0);
TRS	:	(	4500.0,	140.0,	0.0,	0.0);	TRS	:	(	5000.0,	140.0,	0.0,	0.0);
TRS	:	(	457.0,	150.0,	0.0,	0.0);	TRS	:	(	700.0,	150.0,	0.0,	0.0);
TRS	:	(	1100.0,	150.0,	0.0,	0.0);	TRS	:	(	1500.0,	150.0,	0.0,	0.0);
TRS	:	(	2000.0,	150.0,	0.0,	0.0);	TRS	:	(	2500.0,	150.0,	0.0,	0.0);
TRS	:	(	3000.0,	150.0,	0.0,	0.0);	TRS	:	(	3500.0,	150.0,	0.0,	0.0);
TRS	:	(	4000.0,	150.0,	0.0,	0.0);	TRS	:	(	4500.0,	150.0,	0.0,	0.0);
TRS	:	(	5000.0,	150.0,	0.0,	0.0);	TRS	:	(	488.0,	160.0,	0.0,	0.0);
TRS	:	(	700.0,	160.0,	0.0,	0.0);	TRS	:	(	1100.0,	160.0,	0.0,	0.0);
TRS	:	(	1500.0,	160.0,	0.0,	0.0);	TRS	:	(	2000.0,	160.0,	0.0,	0.0);
TRS	:	(	2500.0,	160.0,	0.0,	0.0);	TRS	:	(	3000.0,	160.0,	0.0,	0.0);
TRS	:	(	3500.0,	160.0,	0.0,	0.0);	TRS	:	(	4000.0,	160.0,	0.0,	0.0);
TRS	:	(	4500.0,	160.0,	0.0,	0.0);	TRS	:	(	5000.0,	160.0,	0.0,	0.0);
TRS	:	(	533.0,	170.0,	0.0,	0.0);	TRS	:	(	700.0,	170.0,	0.0,	0.0);
TRS	:	(	1100.0,	170.0,	0.0,	0.0);	TRS	:	(	1500.0,	170.0,	0.0,	0.0);
TRS	:	(	2000.0,	170.0,	0.0,	0.0);	TRS	:	(	2500.0,	170.0,	0.0,	0.0);
TRS	:	(	3000.0,	170.0,	0.0,	0.0);	TRS	:	(	3500.0,	170.0,	0.0,	0.0);
TRS	:	(	4000.0,	170.0,	0.0,	0.0);	TRS	:	(	4500.0,	170.0,	0.0,	0.0);
TRS	:	(	5000.0,	170.0,	0.0,	0.0);	TRS	:	(	610.0,	180.0,	0.0,	0.0);
TRS	:	(	700.0,	180.0,	0.0,	0.0);	TRS	:	(	1100.0,	180.0,	0.0,	0.0);
TRS	:	(	1500.0,	180.0,	0.0,	0.0);	TRS	:	(	2000.0,	180.0,	0.0,	0.0);
TRS	:	(	2500.0,	180.0,	0.0,	0.0);	TRS	:	(	3000.0,	180.0,	0.0,	0.0);
TRS	:	(	3500.0,	180.0,	0.0,	0.0);	TRS	:	(	4000.0,	180.0,	0.0,	0.0);
TRS	:	(	4500.0,	180.0,	0.0,	0.0);	TRS	:	(	5000.0,	180.0,	0.0,	0.0);
TRS	:	(	750.0,	190.0,	0.0,	0.0);	TRS	:	(	1100.0,	190.0,	0.0,	0.0);
TRS	:	(	1500.0,	190.0,	0.0,	0.0);	TRS	:	(	2000.0,	190.0,	0.0,	0.0);
TRS	:	(	2500.0,	190.0,	0.0,	0.0);	TRS	:	(	3000.0,	190.0,	0.0,	0.0);
TRS	:	(	3500.0,	190.0,	0.0,	0.0);	TRS	:	(	4000.0,	190.0,	0.0,	0.0);
TRS	:	(	4500.0,	190.0,	0.0,	0.0);	TRS	:	(	5000.0,	190.0,	0.0,	0.0);
TRS	:	(	1829.0,	200.0,	0.0,	0.0);	TRS	:	(	2000.0,	200.0,	0.0,	0.0);
TRS	:	(	2500.0,	200.0,	0.0,	0.0);	TRS	:	(	3000.0,	200.0,	0.0,	0.0);
TRS	:	(	3500.0,	200.0,	0.0,	0.0);	TRS	:	(	4000.0,	200.0,	0.0,	0.0);
TRS	:	(	4500.0,	200.0,	0.0,	0.0);	TRS	:	(	5000.0,	200.0,	0.0,	0.0);
TRS	:	(	1829.0,	210.0,	0.0,	0.0);	TRS	:	(	2000.0,	210.0,	0.0,	0.0);
TRS	:	(	2500.0,	210.0,	0.0,	0.0);	TRS	:	(	3000.0,	210.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	3500.0,	210.0,	0.0,	0.0);	TRS	:	(	4000.0,	210.0,	0.0,	0.0);
TRS	:	(	4500.0,	210.0,	0.0,	0.0);	TRS	:	(	5000.0,	210.0,	0.0,	0.0);
TRS	:	(	1981.0,	220.0,	0.0,	0.0);	TRS	:	(	2000.0,	220.0,	0.0,	0.0);
TRS	:	(	2500.0,	220.0,	0.0,	0.0);	TRS	:	(	3000.0,	220.0,	0.0,	0.0);
TRS	:	(	3500.0,	220.0,	0.0,	0.0);	TRS	:	(	4000.0,	220.0,	0.0,	0.0);
TRS	:	(	4500.0,	220.0,	0.0,	0.0);	TRS	:	(	5000.0,	220.0,	0.0,	0.0);
TRS	:	(	2134.0,	230.0,	0.0,	0.0);	TRS	:	(	2500.0,	230.0,	0.0,	0.0);
TRS	:	(	3000.0,	230.0,	0.0,	0.0);	TRS	:	(	3500.0,	230.0,	0.0,	0.0);
TRS	:	(	4000.0,	230.0,	0.0,	0.0);	TRS	:	(	4500.0,	230.0,	0.0,	0.0);
TRS	:	(	5000.0,	230.0,	0.0,	0.0);	TRS	:	(	2438.0,	240.0,	0.0,	0.0);
TRS	:	(	2500.0,	240.0,	0.0,	0.0);	TRS	:	(	3000.0,	240.0,	0.0,	0.0);
TRS	:	(	3500.0,	240.0,	0.0,	0.0);	TRS	:	(	4000.0,	240.0,	0.0,	0.0);
TRS	:	(	4500.0,	240.0,	0.0,	0.0);	TRS	:	(	5000.0,	240.0,	0.0,	0.0);
TRS	:	(	2896.0,	250.0,	0.0,	0.0);	TRS	:	(	3000.0,	250.0,	0.0,	0.0);
TRS	:	(	3500.0,	250.0,	0.0,	0.0);	TRS	:	(	4000.0,	250.0,	0.0,	0.0);
TRS	:	(	4500.0,	250.0,	0.0,	0.0);	TRS	:	(	5000.0,	250.0,	0.0,	0.0);
TRS	:	(	3048.0,	260.0,	0.0,	0.0);	TRS	:	(	3500.0,	260.0,	0.0,	0.0);
TRS	:	(	4000.0,	260.0,	0.0,	0.0);	TRS	:	(	4500.0,	260.0,	0.0,	0.0);
TRS	:	(	5000.0,	260.0,	0.0,	0.0);	TRS	:	(	3658.0,	270.0,	0.0,	0.0);
TRS	:	(	4000.0,	270.0,	0.0,	0.0);	TRS	:	(	4500.0,	270.0,	0.0,	0.0);
TRS	:	(	5000.0,	270.0,	0.0,	0.0);	TRS	:	(	3962.0,	280.0,	0.0,	0.0);
TRS	:	(	4000.0,	280.0,	0.0,	0.0);	TRS	:	(	4500.0,	280.0,	0.0,	0.0);
TRS	:	(	5000.0,	280.0,	0.0,	0.0);	TRS	:	(	4572.0,	290.0,	0.0,	0.0);
TRS	:	(	5000.0,	290.0,	0.0,	0.0);	TRS	:	(	5182.0,	300.0,	0.0,	0.0);
TRS	:	(	4801.0,	310.0,	0.0,	0.0);	TRS	:	(	5000.0,	310.0,	0.0,	0.0);
TRS	:	(	4875.0,	320.0,	0.0,	0.0);	TRS	:	(	5000.0,	320.0,	0.0,	0.0);
TRS	:	(	6000.0,	330.0,	0.0,	0.0);	TRS	:	(	5500.0,	340.0,	0.0,	0.0);
TRS	:	(	5250.0,	350.0,	0.0,	0.0);	TRS	:	(	5125.0,	360.0,	0.0,	0.0);

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL87.BIN

FORMAT: UNFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1987

YEAR: 1987

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-O	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
87	1	1	1	311.0	4.63	292.0	4	356.7	356.7	0.0000	0.0	0.0000	0	0.00
87	1	1	2	348.0	5.14	292.6	4	351.8	351.8	0.0000	0.0	0.0000	0	0.00
87	1	1	3	344.0	6.17	292.6	4	346.9	346.9	0.0000	0.0	0.0000	0	0.00
87	1	1	4	33.0	3.60	293.2	4	342.0	342.0	0.0000	0.0	0.0000	0	0.00
87	1	1	5	33.0	4.12	292.0	4	337.1	337.1	0.0000	0.0	0.0000	0	0.00
87	1	1	6	142.0	4.12	285.4	4	332.2	332.2	0.0000	0.0	0.0000	0	0.00
87	1	1	7	125.0	7.72	283.2	4	327.3	327.3	0.0000	0.0	0.0000	0	0.00
87	1	1	8	123.0	5.14	282.0	4	322.4	322.4	0.0000	0.0	0.0000	0	0.00
87	1	1	9	107.0	6.17	281.5	4	317.5	317.5	0.0000	0.0	0.0000	0	0.00
87	1	1	10	101.0	6.17	281.5	4	312.6	312.6	0.0000	0.0	0.0000	0	0.00
87	1	1	11	114.0	7.20	282.0	4	307.7	307.7	0.0000	0.0	0.0000	0	0.00
87	1	1	12	126.0	6.17	282.6	4	302.8	302.8	0.0000	0.0	0.0000	0	0.00
87	1	1	13	153.0	5.14	282.6	4	297.9	297.9	0.0000	0.0	0.0000	0	0.00
87	1	1	14	139.0	6.17	282.6	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	15	132.0	7.20	284.3	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	16	134.0	6.17	284.8	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	17	121.0	4.12	285.4	4	293.0	293.0	0.0000	0.0	0.0000	0	0.00
87	1	1	18	127.0	2.57	284.3	5	310.1	302.5	0.0000	0.0	0.0000	0	0.00
87	1	1	19	104.0	2.57	281.5	6	353.3	326.6	0.0000	0.0	0.0000	0	0.00
87	1	1	20	117.0	2.57	282.6	6	396.6	350.7	0.0000	0.0	0.0000	0	0.00
87	1	1	21	140.0	7.20	283.7	5	439.8	374.8	0.0000	0.0	0.0000	0	0.00
87	1	1	22	142.0	2.57	282.0	6	483.1	398.8	0.0000	0.0	0.0000	0	0.00
87	1	1	23	140.0	1.00	279.8	7	526.3	422.9	0.0000	0.0	0.0000	0	0.00
87	1	1	24	110.0	2.06	278.7	6	569.5	447.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC
TRS :	5000.00	10.00	0.22103	TRS :	4500.00	20.00	0.23638
TRS :	5000.00	20.00	0.20207	TRS :	2500.00	30.00	0.57113
TRS :	3000.00	30.00	0.43902	TRS :	3500.00	30.00	0.35202
TRS :	4000.00	30.00	0.29095	TRS :	4500.00	30.00	0.24606
TRS :	5000.00	30.00	0.21189	TRS :	2500.00	40.00	0.43811
TRS :	3000.00	40.00	0.34390	TRS :	3500.00	40.00	0.28049
TRS :	4000.00	40.00	0.23516	TRS :	4500.00	40.00	0.20138
TRS :	5000.00	40.00	0.17537	TRS :	1500.00	50.00	0.81216
TRS :	2000.00	50.00	0.54183	TRS :	2500.00	50.00	0.39719
TRS :	3000.00	50.00	0.30896	TRS :	3500.00	50.00	0.25012
TRS :	4000.00	50.00	0.20847	TRS :	4500.00	50.00	0.17764
TRS :	5000.00	50.00	0.15395	TRS :	1500.00	60.00	0.97087
TRS :	2000.00	60.00	0.66814	TRS :	2500.00	60.00	0.49933
TRS :	3000.00	60.00	0.39365	TRS :	3500.00	60.00	0.32176
TRS :	4000.00	60.00	0.27014	TRS :	4500.00	60.00	0.23148
TRS :	5000.00	60.00	0.20150	TRS :	1500.00	70.00	1.11907
TRS :	2000.00	70.00	0.72007	TRS :	2500.00	70.00	0.51304
TRS :	3000.00	70.00	0.39039	TRS :	3500.00	70.00	0.31052
TRS :	4000.00	70.00	0.25501	TRS :	4500.00	70.00	0.21455
TRS :	5000.00	70.00	0.18395	TRS :	838.00	80.00	3.69965
TRS :	1100.00	80.00	2.44223	TRS :	1500.00	80.00	1.52264
TRS :	2000.00	80.00	0.99481	TRS :	2500.00	80.00	0.71415
TRS :	3000.00	80.00	0.54499	TRS :	3500.00	80.00	0.43427
TRS :	4000.00	80.00	0.35701	TRS :	4500.00	80.00	0.30046
TRS :	5000.00	80.00	0.25757	TRS :	686.00	90.00	4.84643
TRS :	1100.00	90.00	2.98827	TRS :	1500.00	90.00	2.00822
TRS :	2000.00	90.00	1.32909	TRS :	2500.00	90.00	0.96401
TRS :	3000.00	90.00	0.74532	TRS :	3500.00	90.00	0.60246
TRS :	4000.00	90.00	0.50252	TRS :	4500.00	90.00	0.42893
TRS :	5000.00	90.00	0.37264	TRS :	533.00	100.00	6.43942
TRS :	700.00	100.00	4.39579	TRS :	1100.00	100.00	2.73887
TRS :	1500.00	100.00	1.94068	TRS :	2000.00	100.00	1.35691
TRS :	2500.00	100.00	1.00988	TRS :	3000.00	100.00	0.79016
TRS :	3500.00	100.00	0.64195	TRS :	4000.00	100.00	0.53629
TRS :	4500.00	100.00	0.45763	TRS :	5000.00	100.00	0.39708
TRS :	457.00	110.00	7.13596	TRS :	700.00	110.00	4.99393
TRS :	1100.00	110.00	3.05747	TRS :	1500.00	110.00	2.03683
TRS :	2000.00	110.00	1.32418	TRS :	2500.00	110.00	0.96088
TRS :	3000.00	110.00	0.75061	TRS :	3500.00	110.00	0.61440
TRS :	4000.00	110.00	0.51869	TRS :	4500.00	110.00	0.44752

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	110.00	0.39243	TRS	457.00	120.00	7.16714
TRS	700.00	120.00	4.96213	TRS	1100.00	120.00	3.24040
TRS	1500.00	120.00	2.30984	TRS	2000.00	120.00	1.53473
TRS	2500.00	120.00	1.11569	TRS	3000.00	120.00	0.87208
TRS	3500.00	120.00	0.71477	TRS	4000.00	120.00	0.60444
TRS	4500.00	120.00	0.52241	TRS	5000.00	120.00	0.45889
TRS	457.00	130.00	6.53024	TRS	700.00	130.00	4.93414
TRS	1100.00	130.00	3.04401	TRS	1500.00	130.00	2.20058
TRS	2000.00	130.00	1.54827	TRS	2500.00	130.00	1.14271
TRS	3000.00	130.00	0.88842	TRS	3500.00	130.00	0.72024
TRS	4000.00	130.00	0.60243	TRS	4500.00	130.00	0.51577
TRS	5000.00	130.00	0.44953	TRS	457.00	140.00	5.54199
TRS	700.00	140.00	4.20788	TRS	1100.00	140.00	3.12861
TRS	1500.00	140.00	2.19257	TRS	2000.00	140.00	1.56055
TRS	2500.00	140.00	1.19616	TRS	3000.00	140.00	0.95678
TRS	3500.00	140.00	0.78825	TRS	4000.00	140.00	0.66420
TRS	4500.00	140.00	0.56983	TRS	5000.00	140.00	0.49613
TRS	457.00	150.00	5.08623	TRS	700.00	150.00	3.64866
TRS	1100.00	150.00	2.66533	TRS	1500.00	150.00	1.96917
TRS	2000.00	150.00	1.38011	TRS	2500.00	150.00	1.05169
TRS	3000.00	150.00	0.85494	TRS	3500.00	150.00	0.72317
TRS	4000.00	150.00	0.62707	TRS	4500.00	150.00	0.55279
TRS	5000.00	150.00	0.49322	TRS	488.00	160.00	3.99199
TRS	700.00	160.00	3.17974	TRS	1100.00	160.00	2.40509
TRS	1500.00	160.00	1.80092	TRS	2000.00	160.00	1.27775
TRS	2500.00	160.00	0.95561	TRS	3000.00	160.00	0.75061
TRS	3500.00	160.00	0.61231	TRS	4000.00	160.00	0.51397
TRS	4500.00	160.00	0.44093	TRS	5000.00	160.00	0.38475
TRS	533.00	170.00	3.95495	TRS	700.00	170.00	3.12578
TRS	1100.00	170.00	1.97637	TRS	1500.00	170.00	1.41937
TRS	2000.00	170.00	1.03612	TRS	2500.00	170.00	0.80731
TRS	3000.00	170.00	0.65546	TRS	3500.00	170.00	0.54746
TRS	4000.00	170.00	0.46703	TRS	4500.00	170.00	0.40506
TRS	5000.00	170.00	0.35604	TRS	610.00	180.00	3.38539
TRS	700.00	180.00	3.04220	TRS	1100.00	180.00	2.07160
TRS	1500.00	180.00	1.54940	TRS	2000.00	180.00	1.15342
TRS	2500.00	180.00	0.90295	TRS	3000.00	180.00	0.73399
TRS	3500.00	180.00	0.61340	TRS	4000.00	180.00	0.52362
TRS	4500.00	180.00	0.45452	TRS	5000.00	180.00	0.39994
TRS	750.00	190.00	2.78660	TRS	1100.00	190.00	1.98797

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	1500.00	190.00	1.46784	TRS	2000.00	190.00	1.08329
TRS	2500.00	190.00	0.84425	TRS	3000.00	190.00	0.68427
TRS	3500.00	190.00	0.57046	TRS	4000.00	190.00	0.48586
TRS	4500.00	190.00	0.42082	TRS	5000.00	190.00	0.36949
TRS	1829.00	200.00	1.24111	TRS	2000.00	200.00	1.11909
TRS	2500.00	200.00	0.85915	TRS	3000.00	200.00	0.68976
TRS	3500.00	200.00	0.57125	TRS	4000.00	200.00	0.48427
TRS	4500.00	200.00	0.41807	TRS	5000.00	200.00	0.36621
TRS	1829.00	210.00	1.38116	TRS	2000.00	210.00	1.24963
TRS	2500.00	210.00	0.96448	TRS	3000.00	210.00	0.77529
TRS	3500.00	210.00	0.64153	TRS	4000.00	210.00	0.54273
TRS	4500.00	210.00	0.46724	TRS	5000.00	210.00	0.40800
TRS	1981.00	220.00	1.01423	TRS	2000.00	220.00	1.00378
TRS	2500.00	220.00	0.78300	TRS	3000.00	220.00	0.63430
TRS	3500.00	220.00	0.52779	TRS	4000.00	220.00	0.44852
TRS	4500.00	220.00	0.38759	TRS	5000.00	220.00	0.33950
TRS	2134.00	230.00	1.04790	TRS	2500.00	230.00	0.88352
TRS	3000.00	230.00	0.72084	TRS	3500.00	230.00	0.60347
TRS	4000.00	230.00	0.51546	TRS	4500.00	230.00	0.44730
TRS	5000.00	230.00	0.39319	TRS	2438.00	240.00	0.89698
TRS	2500.00	240.00	0.87235	TRS	3000.00	240.00	0.70947
TRS	3500.00	240.00	0.59250	TRS	4000.00	240.00	0.50514
TRS	4500.00	240.00	0.43772	TRS	5000.00	240.00	0.38433
TRS	2896.00	250.00	0.97678	TRS	3000.00	250.00	0.94200
TRS	3500.00	250.00	0.80145	TRS	4000.00	250.00	0.69406
TRS	4500.00	250.00	0.60935	TRS	5000.00	250.00	0.54120
TRS	3048.00	260.00	1.10452	TRS	3500.00	260.00	0.93197
TRS	4000.00	260.00	0.78769	TRS	4500.00	260.00	0.67706
TRS	5000.00	260.00	0.59011	TRS	3658.00	270.00	0.80585
TRS	4000.00	270.00	0.71551	TRS	4500.00	270.00	0.61104
TRS	5000.00	270.00	0.53010	TRS	3962.00	280.00	0.52665
TRS	4000.00	280.00	0.51914	TRS	4500.00	280.00	0.43485
TRS	5000.00	280.00	0.37121	TRS	4572.00	290.00	0.36011
TRS	5000.00	290.00	0.31756	TRS	5182.00	300.00	0.31572
TRS	4801.00	310.00	0.28934	TRS	5000.00	310.00	0.27344
TRS	4875.00	320.00	0.34981	TRS	5000.00	320.00	0.33782
TRS	6000.00	330.00	0.21920	TRS	5500.00	340.00	0.26960
TRS	5250.00	350.00	0.26996	TRS	5125.00	360.00	0.29763

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	10.00	3.40560c (87061324)	TRS	4500.00	20.00	3.88122 (87030824)
TRS	5000.00	20.00	3.40589 (87030824)	TRS	2500.00	30.00	8.53613c (87071524)
TRS	3000.00	30.00	7.02555c (87071524)	TRS	3500.00	30.00	5.94590c (87071524)
TRS	4000.00	30.00	5.13460c (87071524)	TRS	4500.00	30.00	4.50302c (87071524)
TRS	5000.00	30.00	3.99792c (87071524)	TRS	2500.00	40.00	8.90265c (87011524)
TRS	3000.00	40.00	7.54208c (87011524)	TRS	3500.00	40.00	6.54055c (87011524)
TRS	4000.00	40.00	5.77263c (87011524)	TRS	4500.00	40.00	5.16669c (87011524)
TRS	5000.00	40.00	4.67609c (87011524)	TRS	1500.00	50.00	9.69716c (87072824)
TRS	2000.00	50.00	7.54339c (87012524)	TRS	2500.00	50.00	6.04898c (87012524)
TRS	3000.00	50.00	4.98567c (87012524)	TRS	3500.00	50.00	4.19768c (87012524)
TRS	4000.00	50.00	3.59809c (87012524)	TRS	4500.00	50.00	3.12978c (87012524)
TRS	5000.00	50.00	2.75574c (87012524)	TRS	1500.00	60.00	9.94549c (87062724)
TRS	2000.00	60.00	7.01581 (87111024)	TRS	2500.00	60.00	5.43787c (87021424)
TRS	3000.00	60.00	4.60073c (87021424)	TRS	3500.00	60.00	3.96798c (87021424)
TRS	4000.00	60.00	3.48015c (87021424)	TRS	4500.00	60.00	3.09282c (87021424)
TRS	5000.00	60.00	2.77527c (87021424)	TRS	1500.00	70.00	16.36041c (87122824)
TRS	2000.00	70.00	10.32513c (87122824)	TRS	2500.00	70.00	7.01715c (87122824)
TRS	3000.00	70.00	5.08074c (87122824)	TRS	3500.00	70.00	3.85832c (87122824)
TRS	4000.00	70.00	3.12456c (87112824)	TRS	4500.00	70.00	2.84921c (87112824)
TRS	5000.00	70.00	2.61622c (87112824)	TRS	838.00	80.00	40.39970c (87081924)
TRS	1100.00	80.00	28.41348c (87090724)	TRS	1500.00	80.00	18.44852c (87021224)
TRS	2000.00	80.00	15.23933c (87021224)	TRS	2500.00	80.00	12.69232c (87021224)
TRS	3000.00	80.00	10.62562c (87021224)	TRS	3500.00	80.00	8.97941c (87021224)
TRS	4000.00	80.00	7.67648c (87021224)	TRS	4500.00	80.00	6.63622c (87021224)
TRS	5000.00	80.00	5.79732c (87021224)	TRS	686.00	90.00	59.30138c (87071224)
TRS	1100.00	90.00	32.77069c (87092024)	TRS	1500.00	90.00	23.39983c (87050224)
TRS	2000.00	90.00	16.02456c (87040524)	TRS	2500.00	90.00	12.61994c (87040524)
TRS	3000.00	90.00	9.43140c (87040524)	TRS	3500.00	90.00	7.09322c (87040524)
TRS	4000.00	90.00	5.45278c (87040524)	TRS	4500.00	90.00	4.43971 (87012224)
TRS	5000.00	90.00	3.86529 (87012224)	TRS	533.00	100.00	67.94662c (87010224)
TRS	700.00	100.00	37.66574c (87010224)	TRS	1100.00	100.00	20.97029c (87020324)
TRS	1500.00	100.00	19.66841c (87020324)	TRS	2000.00	100.00	14.77929c (87040724)
TRS	2500.00	100.00	13.50255c (87040724)	TRS	3000.00	100.00	11.40755c (87040724)
TRS	3500.00	100.00	9.42742c (87040724)	TRS	4000.00	100.00	7.79533c (87040724)
TRS	4500.00	100.00	6.49839c (87040724)	TRS	5000.00	100.00	5.47559c (87040724)
TRS	457.00	110.00	78.81228c (87011324)	TRS	700.00	110.00	38.56361c (87013124)
TRS	1100.00	110.00	36.32188c (87010224)	TRS	1500.00	110.00	28.86250c (87010224)
TRS	2000.00	110.00	15.79534c (87010224)	TRS	2500.00	110.00	9.83443c (87021324)
TRS	3000.00	110.00	7.21458c (87021324)	TRS	3500.00	110.00	5.64701c (87042824)
TRS	4000.00	110.00	5.24826c (87042824)	TRS	4500.00	110.00	4.78252c (87042824)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN					
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)		
TRS	5000.00	110.00	4.32662c (87042824)	TRS	457.00	120.00	76.83239c (87081324)		
TRS	700.00	120.00	52.18111c (87011324)	TRS	1100.00	120.00	29.62272c (87011324)		
TRS	1500.00	120.00	20.09152c (87040824)	TRS	2000.00	120.00	12.82372c (87013124)		
TRS	2500.00	120.00	10.89382c (87010224)	TRS	3000.00	120.00	8.91974c (87010224)		
TRS	3500.00	120.00	7.47233c (87120524)	TRS	4000.00	120.00	6.70129c (87120524)		
TRS	4500.00	120.00	5.92796c (87120524)	TRS	5000.00	120.00	5.22307c (87120524)		
TRS	457.00	130.00	78.39354c (87081024)	TRS	700.00	130.00	69.99793c (87081324)		
TRS	1100.00	130.00	27.53449c (87080824)	TRS	1500.00	130.00	23.09443 (87112024)		
TRS	2000.00	130.00	19.47676 (87112024)	TRS	2500.00	130.00	14.69156 (87112024)		
TRS	3000.00	130.00	12.68390c (87010724)	TRS	3500.00	130.00	11.06113c (87010724)		
TRS	4000.00	130.00	9.63404c (87010724)	TRS	4500.00	130.00	8.42561c (87010724)		
TRS	5000.00	130.00	7.41561c (87010724)	TRS	457.00	140.00	43.97947c (87042524)		
TRS	700.00	140.00	45.81832c (87081024)	TRS	1100.00	140.00	44.64612c (87081324)		
TRS	1500.00	140.00	35.21695c (87081324)	TRS	2000.00	140.00	26.44080c (87081324)		
TRS	2500.00	140.00	19.83320c (87081324)	TRS	3000.00	140.00	15.05221c (87081324)		
TRS	3500.00	140.00	11.66015c (87081324)	TRS	4000.00	140.00	9.23237c (87081324)		
TRS	4500.00	140.00	7.46362c (87081324)	TRS	5000.00	140.00	6.74436c (87020824)		
TRS	457.00	150.00	47.41451c (87020924)	TRS	700.00	150.00	35.44875c (87102124)		
TRS	1100.00	150.00	22.98426c (87102924)	TRS	1500.00	150.00	26.09395c (87092124)		
TRS	2000.00	150.00	18.93152c (87092124)	TRS	2500.00	150.00	13.11062c (87092124)		
TRS	3000.00	150.00	10.57329c (87081024)	TRS	3500.00	150.00	9.56228c (87081024)		
TRS	4000.00	150.00	8.57405c (87081024)	TRS	4500.00	150.00	7.68639c (87081024)		
TRS	5000.00	150.00	6.91424c (87081024)	TRS	488.00	160.00	36.48436c (87111924)		
TRS	700.00	160.00	29.19559c (87020924)	TRS	1100.00	160.00	23.96264 (87101724)		
TRS	1500.00	160.00	19.94081c (87030224)	TRS	2000.00	160.00	17.30087c (87030224)		
TRS	2500.00	160.00	13.67152c (87030224)	TRS	3000.00	160.00	10.79777c (87030224)		
TRS	3500.00	160.00	8.69060c (87030224)	TRS	4000.00	160.00	7.14494c (87030224)		
TRS	4500.00	160.00	5.98630c (87030224)	TRS	5000.00	160.00	5.40497c (87042524)		
TRS	533.00	170.00	28.36409c (87100924)	TRS	700.00	170.00	24.89042c (87021824)		
TRS	1100.00	170.00	20.07246c (87111924)	TRS	1500.00	170.00	16.08682c (87111924)		
TRS	2000.00	170.00	12.28825c (87111924)	TRS	2500.00	170.00	9.85791c (87111924)		
TRS	3000.00	170.00	8.15115c (87111924)	TRS	3500.00	170.00	6.87173c (87111924)		
TRS	4000.00	170.00	5.88035c (87111924)	TRS	4500.00	170.00	5.09589c (87111924)		
TRS	5000.00	170.00	4.46463c (87111924)	TRS	610.00	180.00	52.75732c (87031224)		
TRS	700.00	180.00	46.89268c (87031224)	TRS	1100.00	180.00	25.96280c (87031224)		
TRS	1500.00	180.00	16.19130c (87100924)	TRS	2000.00	180.00	12.92005c (87100924)		
TRS	2500.00	180.00	10.05727c (87100924)	TRS	3000.00	180.00	7.93534c (87100924)		
TRS	3500.00	180.00	6.40359c (87100924)	TRS	4000.00	180.00	5.28131c (87100924)		
TRS	4500.00	180.00	4.43986c (87100924)	TRS	5000.00	180.00	3.79417c (87100924)		
RS	750.00	190.00	31.13287 (87101124)	TRS	1100.00	190.00	22.10160 (87101224)		

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	16.89429	(87101224)	TRS	2000.00	190.00	12.59229	(87101224)
TRS	2500.00	190.00	10.12567c	(87031224)	TRS	3000.00	190.00	8.36692c	(87031224)
TRS	3500.00	190.00	7.03210c	(87031224)	TRS	4000.00	190.00	6.00129c	(87031224)
TRS	4500.00	190.00	5.19038c	(87031224)	TRS	5000.00	190.00	4.54118c	(87031224)
TRS	1829.00	200.00	11.82271c	(87050524)	TRS	2000.00	200.00	10.58951c	(87050524)
TRS	2500.00	200.00	8.00441c	(87050524)	TRS	3000.00	200.00	6.84450c	(87121324)
TRS	3500.00	200.00	6.05799c	(87121324)	TRS	4000.00	200.00	5.43409c	(87121324)
TRS	4500.00	200.00	4.92785c	(87121324)	TRS	5000.00	200.00	4.50924c	(87121324)
TRS	1829.00	210.00	15.69937	(87101124)	TRS	2000.00	210.00	14.16980	(87101124)
TRS	2500.00	210.00	10.83650	(87101124)	TRS	3000.00	210.00	8.63618	(87101124)
TRS	3500.00	210.00	7.08014	(87101124)	TRS	4000.00	210.00	5.93413	(87101124)
TRS	4500.00	210.00	5.06256	(87101124)	TRS	5000.00	210.00	4.38218	(87101124)
TRS	1981.00	220.00	11.57349c	(87102424)	TRS	2000.00	220.00	11.44695c	(87102424)
TRS	2500.00	220.00	8.78202	(87030624)	TRS	3000.00	220.00	7.05919	(87030624)
TRS	3500.00	220.00	5.82678	(87030624)	TRS	4000.00	220.00	4.91102	(87030624)
TRS	4500.00	220.00	4.20919	(87030624)	TRS	5000.00	220.00	3.65770	(87030624)
TRS	2134.00	230.00	10.79661	(87110124)	TRS	2500.00	230.00	9.22312	(87110124)
TRS	3000.00	230.00	7.61415	(87110124)	TRS	3500.00	230.00	6.42184	(87110124)
TRS	4000.00	230.00	5.51148	(87110124)	TRS	4500.00	230.00	4.79778	(87110124)
TRS	5000.00	230.00	4.22598	(87110124)	TRS	2438.00	240.00	9.02309	(87022024)
TRS	2500.00	240.00	8.77864	(87022024)	TRS	3000.00	240.00	7.13774	(87022024)
TRS	3500.00	240.00	5.93500	(87022024)	TRS	4000.00	240.00	5.02601	(87022024)
TRS	4500.00	240.00	4.32111	(87022024)	TRS	5000.00	240.00	3.76247	(87022024)
TRS	2896.00	250.00	7.07183c	(87050924)	TRS	3000.00	250.00	6.85853c	(87050924)
TRS	3500.00	250.00	5.96937c	(87050924)	TRS	4000.00	250.00	5.26038c	(87050924)
TRS	4500.00	250.00	4.68108c	(87050924)	TRS	5000.00	250.00	4.20294c	(87050924)
TRS	3048.00	260.00	10.12091	(87051624)	TRS	3500.00	260.00	8.81515	(87051624)
TRS	4000.00	260.00	7.66484	(87051624)	TRS	4500.00	260.00	6.74472	(87051624)
TRS	5000.00	260.00	6.08654c	(87120824)	TRS	3658.00	270.00	8.30805c	(87082124)
TRS	4000.00	270.00	7.44473	(87122324)	TRS	4500.00	270.00	6.63316	(87122324)
TRS	5000.00	270.00	5.94603	(87122324)	TRS	3962.00	280.00	5.76447	(87051124)
TRS	4000.00	280.00	5.67621	(87051124)	TRS	4500.00	280.00	4.67576	(87051124)
TRS	5000.00	280.00	3.91383	(87051124)	TRS	4572.00	290.00	4.19761c	(87092924)
TRS	5000.00	290.00	3.69835c	(87092924)	TRS	5182.00	300.00	4.00648c	(87010324)
TRS	4801.00	310.00	4.32332c	(87111624)	TRS	5000.00	310.00	4.11147c	(87111624)
TRS	4875.00	320.00	5.98828c	(87121424)	TRS	5000.00	320.00	5.88198c	(87121424)
TRS	6000.00	330.00	3.35358c	(87081624)	TRS	5500.00	340.00	5.95711c	(87122524)
TRS	5250.00	350.00	3.99458c	(87080124)	TRS	5125.00	360.00	4.43708	(87093024)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	10.00	10.45048c (87061308)	TRS	4500.00	20.00	7.98324c (87011616)				
TRS	5000.00	20.00	6.96485c (87011616)	TRS	2500.00	30.00	20.64912c (87121016)				
TRS	3000.00	30.00	15.83614c (87121016)	TRS	3500.00	30.00	12.64453c (87121016)				
TRS	4000.00	30.00	10.44509c (87060208)	TRS	4500.00	30.00	9.46887c (87060208)				
TRS	5000.00	30.00	8.64461c (87060208)	TRS	2500.00	40.00	15.81004c (87071524)				
TRS	3000.00	40.00	12.80433c (87071524)	TRS	3500.00	40.00	10.62759c (87071524)				
TRS	4000.00	40.00	8.99292c (87071524)	TRS	4500.00	40.00	7.73121c (87071524)				
TRS	5000.00	40.00	6.73480c (87071524)	TRS	1500.00	50.00	18.65484c (87061416)				
TRS	2000.00	50.00	12.59288 (87012524)	TRS	2500.00	50.00	10.10608 (87012524)				
TRS	3000.00	50.00	8.35773 (87012524)	TRS	3500.00	50.00	7.06163 (87012524)				
TRS	4000.00	50.00	6.07583 (87012524)	TRS	4500.00	50.00	5.38991 (87011824)				
TRS	5000.00	50.00	5.01010 (87011824)	TRS	1500.00	60.00	23.46945 (87062716)				
TRS	2000.00	60.00	16.31691 (87062716)	TRS	2500.00	60.00	11.96937 (87062716)				
TRS	3000.00	60.00	9.19965 (87062716)	TRS	3500.00	60.00	7.47653 (87122824)				
TRS	4000.00	60.00	6.52263 (87021424)	TRS	4500.00	60.00	5.90477 (87021424)				
TRS	5000.00	60.00	5.37582 (87021424)	TRS	1500.00	70.00	26.70894c (87100624)				
TRS	2000.00	70.00	14.75004 (87122824)	TRS	2500.00	70.00	12.68809c (87112824)				
TRS	3000.00	70.00	11.47876c (87112824)	TRS	3500.00	70.00	10.34923c (87112824)				
TRS	4000.00	70.00	9.37368c (87112824)	TRS	4500.00	70.00	8.54764c (87112824)				
TRS	5000.00	70.00	7.84866c (87112824)	TRS	838.00	80.00	81.84724c (87090924)				
TRS	1100.00	80.00	79.13308c (87090724)	TRS	1500.00	80.00	54.53321c (87090724)				
TRS	2000.00	80.00	32.00267c (87081824)	TRS	2500.00	80.00	26.28219c (87081824)				
TRS	3000.00	80.00	20.86129c (87081824)	TRS	3500.00	80.00	16.64719c (87081824)				
TRS	4000.00	80.00	13.84529c (87100624)	TRS	4500.00	80.00	12.49355c (87100624)				
TRS	5000.00	80.00	11.35034c (87100624)	TRS	686.00	90.00	73.70066c (87071408)				
TRS	1100.00	90.00	58.19069c (87092008)	TRS	1500.00	90.00	45.41486c (87050224)				
TRS	2000.00	90.00	36.48419c (87040524)	TRS	2500.00	90.00	29.96602c (87040524)				
TRS	3000.00	90.00	22.59926c (87040524)	TRS	3500.00	90.00	16.98324c (87040524)				
TRS	4000.00	90.00	13.55762 (87082908)	TRS	4500.00	90.00	11.18029 (87082908)				
TRS	5000.00	90.00	9.39677 (87012224)	TRS	533.00	100.00	96.43942 (87010208)				
TRS	700.00	100.00	58.59424c (87050108)	TRS	1100.00	100.00	53.34528c (87090816)				
TRS	1500.00	100.00	38.35748c (87020308)	TRS	2000.00	100.00	25.21992 (87121024)				
TRS	2500.00	100.00	22.54968c (87071408)	TRS	3000.00	100.00	19.05108c (87071408)				
TRS	3500.00	100.00	16.01517c (87020224)	TRS	4000.00	100.00	13.48912c (87020224)				
TRS	4500.00	100.00	11.29637c (87020224)	TRS	5000.00	100.00	10.21180c (87092008)				
TRS	457.00	110.00	108.29639c (87020708)	TRS	700.00	110.00	69.80117 (87013108)				
TRS	1100.00	110.00	57.10715 (87010208)	TRS	1500.00	110.00	47.79161 (87010208)				
TRS	2000.00	110.00	31.51022c (87103008)	TRS	2500.00	110.00	20.06425c (87090624)				
TRS	3000.00	110.00	16.78888c (87090624)	TRS	3500.00	110.00	13.29546c (87090624)				
TRS	4000.00	110.00	11.91694c (87050108)	TRS	4500.00	110.00	10.75235 (87042824)				

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	9.72777	(87042824)	TRS	457.00	120.00	132.29504c	(87020808)
TRS	700.00	120.00	88.05994c	(87080624)	TRS	1100.00	120.00	57.01693c	(87020708)
TRS	1500.00	120.00	45.58893	(87040808)	TRS	2000.00	120.00	28.29156	(87013108)
TRS	2500.00	120.00	24.47322	(87013108)	TRS	3000.00	120.00	20.04925	(87013108)
TRS	3500.00	120.00	18.32443c	(87040908)	TRS	4000.00	120.00	16.51169c	(87040908)
TRS	4500.00	120.00	14.85054c	(87040908)	TRS	5000.00	120.00	13.39426c	(87040908)
TRS	457.00	130.00	149.89279c	(87081008)	TRS	700.00	130.00	83.61280c	(87081308)
TRS	1100.00	130.00	58.14429c	(87020808)	TRS	1500.00	130.00	56.54096c	(87080624)
TRS	2000.00	130.00	39.95371c	(87080624)	TRS	2500.00	130.00	23.58541	(87010724)
TRS	3000.00	130.00	22.16883	(87010724)	TRS	3500.00	130.00	20.04461	(87010724)
TRS	4000.00	130.00	17.89912	(87010724)	TRS	4500.00	130.00	15.93946	(87010724)
TRS	5000.00	130.00	14.22087	(87010724)	TRS	457.00	140.00	117.70003	(87102908)
TRS	700.00	140.00	102.81821c	(87081008)	TRS	1100.00	140.00	75.09994c	(87081724)
TRS	1500.00	140.00	42.78749c	(87041708)	TRS	2000.00	140.00	39.56179c	(87081308)
TRS	2500.00	140.00	34.10708c	(87081308)	TRS	3000.00	140.00	29.32511c	(87020808)
TRS	3500.00	140.00	28.78671c	(87020808)	TRS	4000.00	140.00	27.60900c	(87020808)
TRS	4500.00	140.00	26.11700c	(87020808)	TRS	5000.00	140.00	24.51397c	(87020808)
TRS	457.00	150.00	84.43491	(87101708)	TRS	700.00	150.00	78.88737c	(87042524)
TRS	1100.00	150.00	66.01054	(87102908)	TRS	1500.00	150.00	41.72549	(87092108)
TRS	2000.00	150.00	34.52289c	(87092124)	TRS	2500.00	150.00	29.22007c	(87092124)
TRS	3000.00	150.00	26.22255c	(87081008)	TRS	3500.00	150.00	23.28951c	(87081008)
TRS	4000.00	150.00	20.53186c	(87081008)	TRS	4500.00	150.00	18.13383c	(87081008)
TRS	5000.00	150.00	16.10400c	(87081008)	TRS	488.00	160.00	61.57547c	(87100224)
TRS	700.00	160.00	56.42105c	(87071624)	TRS	1100.00	160.00	45.63432	(87101708)
TRS	1500.00	160.00	40.72851c	(87092308)	TRS	2000.00	160.00	32.61576c	(87092308)
TRS	2500.00	160.00	25.26981c	(87042524)	TRS	3000.00	160.00	23.17260c	(87042524)
TRS	3500.00	160.00	21.01618c	(87042524)	TRS	4000.00	160.00	19.00295c	(87042524)
TRS	4500.00	160.00	17.18955c	(87042524)	TRS	5000.00	160.00	15.58638c	(87042524)
TRS	533.00	170.00	83.93161	(87102508)	TRS	700.00	170.00	62.36642c	(87110524)
TRS	1100.00	170.00	43.03172c	(87110524)	TRS	1500.00	170.00	36.35295c	(87100224)
TRS	2000.00	170.00	28.95044c	(87100224)	TRS	2500.00	170.00	22.07020c	(87032008)
TRS	3000.00	170.00	19.63370c	(87032008)	TRS	3500.00	170.00	16.95416c	(87032008)
TRS	4000.00	170.00	14.54719c	(87032008)	TRS	4500.00	170.00	12.51675c	(87032008)
TRS	5000.00	170.00	10.83810c	(87032008)	TRS	610.00	180.00	103.27947c	(87110508)
TRS	700.00	180.00	90.42051c	(87110508)	TRS	1100.00	180.00	49.76036	(87102508)
TRS	1500.00	180.00	44.17950c	(87100908)	TRS	2000.00	180.00	35.84070c	(87100908)
TRS	2500.00	180.00	28.19120c	(87100908)	TRS	3000.00	180.00	22.41248c	(87100908)
TRS	3500.00	180.00	18.19193c	(87100908)	TRS	4000.00	180.00	15.07715c	(87100908)
TRS	4500.00	180.00	12.72935c	(87100908)	TRS	5000.00	180.00	10.91993c	(87100908)
TRS	750.00	190.00	62.14405c	(87110508)	TRS	1100.00	190.00	55.17286c	(87110508)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	1500.00	190.00	45.34096c (87110508)	TRS	2000.00	190.00	35.39706c (87110508)				
TRS	2500.00	190.00	28.18494c (87110508)	TRS	3000.00	190.00	23.02226c (87110508)				
TRS	3500.00	190.00	19.20947c (87110508)	TRS	4000.00	190.00	16.30931c (87110508)				
TRS	4500.00	190.00	14.05183c (87110508)	TRS	5000.00	190.00	12.25855c (87110508)				
TRS	1829.00	200.00	29.34898c (87121308)	TRS	2000.00	200.00	27.65155c (87121308)				
TRS	2500.00	200.00	23.58804c (87121308)	TRS	3000.00	200.00	20.53349c (87121308)				
TRS	3500.00	200.00	18.17397c (87121308)	TRS	4000.00	200.00	16.30226c (87121308)				
TRS	4500.00	200.00	14.78355c (87121308)	TRS	5000.00	200.00	13.52772c (87121308)				
TRS	1829.00	210.00	27.72841 (87031216)	TRS	2000.00	210.00	25.23571 (87031216)				
TRS	2500.00	210.00	19.65428 (87031216)	TRS	3000.00	210.00	15.85937 (87031216)				
TRS	3500.00	210.00	13.12730 (87031216)	TRS	4000.00	210.00	11.08657 (87031216)				
TRS	4500.00	210.00	9.51756 (87031216)	TRS	5000.00	210.00	8.28206 (87031216)				
TRS	1981.00	220.00	18.27570c (87012108)	TRS	2000.00	220.00	18.11942c (87012108)				
TRS	2500.00	220.00	14.64293c (87012108)	TRS	3000.00	220.00	12.11939c (87012108)				
TRS	3500.00	220.00	10.22585c (87012108)	TRS	4000.00	220.00	8.76710c (87012108)				
TRS	4500.00	220.00	7.61775c (87012108)	TRS	5000.00	220.00	6.69460c (87012108)				
TRS	2134.00	230.00	22.84102 (87110124)	TRS	2500.00	230.00	19.50270c (87022708)				
TRS	3000.00	230.00	16.23894c (87022708)	TRS	3500.00	230.00	13.75137c (87022708)				
TRS	4000.00	230.00	11.81412c (87022708)	TRS	4500.00	230.00	10.27639c (87022708)				
TRS	5000.00	230.00	9.03538c (87022708)	TRS	2438.00	240.00	17.18846 (87020508)				
TRS	2500.00	240.00	16.74508 (87020508)	TRS	3000.00	240.00	13.73643 (87020508)				
TRS	3500.00	240.00	11.49786 (87020508)	TRS	4000.00	240.00	9.78862 (87020508)				
TRS	4500.00	240.00	8.45311 (87020508)	TRS	5000.00	240.00	7.38847 (87020508)				
TRS	2896.00	250.00	14.92924c (87051308)	TRS	3000.00	250.00	14.40078c (87051308)				
TRS	3500.00	250.00	12.21888c (87051308)	TRS	4000.00	250.00	10.51459c (87051308)				
TRS	4500.00	250.00	9.15303c (87051308)	TRS	5000.00	250.00	8.16115c (87121324)				
TRS	3048.00	260.00	26.58881 (87051608)	TRS	3500.00	260.00	23.66153 (87051608)				
TRS	4000.00	260.00	20.94434 (87051608)	TRS	4500.00	260.00	18.67936 (87051608)				
TRS	5000.00	260.00	16.78004 (87051608)	TRS	3658.00	270.00	22.56389 (87122324)				
TRS	4000.00	270.00	20.94975 (87122324)	TRS	4500.00	270.00	18.83575 (87122324)				
TRS	5000.00	270.00	16.99699 (87122324)	TRS	3962.00	280.00	15.49870 (87051108)				
TRS	4000.00	280.00	15.26989 (87051108)	TRS	4500.00	280.00	12.65552 (87051108)				
TRS	5000.00	280.00	10.64030 (87051108)	TRS	4572.00	290.00	9.94739c (87122524)				
TRS	5000.00	290.00	9.16984c (87082108)	TRS	5182.00	300.00	12.12861c (87010324)				
TRS	4801.00	310.00	7.63435c (87081308)	TRS	5000.00	310.00	7.61541c (87081308)				
TRS	4875.00	320.00	13.21865 (87122508)	TRS	5000.00	320.00	12.83072 (87122508)				
TRS	6000.00	330.00	10.06073c (87081608)	TRS	5500.00	340.00	11.05523c (87122524)				
TRS	5250.00	350.00	10.52566 (87022824)	TRS	5125.00	360.00	8.33678c (87080224)				

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	17.53133c	(87061303)	TRS	4500.00	20.00	19.06719	(87080124)
TRS	5000.00	20.00	17.19850	(87080124)	TRS	2500.00	30.00	29.66178	(87060203)
TRS	3000.00	30.00	26.09996	(87060203)	TRS	3500.00	30.00	23.23564	(87060203)
TRS	4000.00	30.00	20.89019	(87060203)	TRS	4500.00	30.00	18.93774	(87060203)
TRS	5000.00	30.00	17.28922	(87060203)	TRS	2500.00	40.00	26.69080	(87011512)
TRS	3000.00	40.00	22.40952	(87011512)	TRS	3500.00	40.00	19.35002	(87011512)
TRS	4000.00	40.00	17.05638	(87011512)	TRS	4500.00	40.00	15.27146	(87011512)
TRS	5000.00	40.00	13.84134	(87011512)	TRS	1500.00	50.00	37.34898	(87012518)
TRS	2000.00	50.00	30.77938	(87012518)	TRS	2500.00	50.00	25.56992	(87012518)
TRS	3000.00	50.00	21.59566	(87012518)	TRS	3500.00	50.00	18.50615	(87012518)
TRS	4000.00	50.00	16.08584	(87012518)	TRS	4500.00	50.00	14.15341	(87012518)
TRS	5000.00	50.00	12.58235	(87012518)	TRS	1500.00	60.00	34.18465	(87062518)
TRS	2000.00	60.00	23.12441	(87022718)	TRS	2500.00	60.00	19.53750	(87011615)
TRS	3000.00	60.00	16.62167	(87011615)	TRS	3500.00	60.00	14.25333	(87011615)
TRS	4000.00	60.00	12.34662	(87011615)	TRS	4500.00	60.00	11.18053	(87012524)
TRS	5000.00	60.00	10.22045	(87012524)	TRS	1500.00	70.00	35.39314	(87011021)
TRS	2000.00	70.00	27.21648c	(87112818)	TRS	2500.00	70.00	25.37618c	(87112818)
TRS	3000.00	70.00	22.95752c	(87112818)	TRS	3500.00	70.00	20.69845c	(87112818)
TRS	4000.00	70.00	18.74736c	(87112818)	TRS	4500.00	70.00	17.09529c	(87112818)
TRS	5000.00	70.00	15.69732c	(87112818)	TRS	838.00	80.00	110.05027	(87090721)
TRS	1100.00	80.00	121.92258	(87090721)	TRS	1500.00	80.00	72.29709	(87121121)
TRS	2000.00	80.00	53.21823	(87121121)	TRS	2500.00	80.00	34.75512c	(87021209)
TRS	3000.00	80.00	30.68319c	(87021209)	TRS	3500.00	80.00	26.60012c	(87021209)
TRS	4000.00	80.00	23.00317c	(87021209)	TRS	4500.00	80.00	19.96984c	(87021209)
TRS	5000.00	80.00	17.44896c	(87021209)	TRS	686.00	90.00	137.07826c	(87071209)
TRS	1100.00	90.00	115.98234	(87092003)	TRS	1500.00	90.00	55.21690	(87040924)
TRS	2000.00	90.00	63.81262	(87040521)	TRS	2500.00	90.00	51.57175	(87040521)
TRS	3000.00	90.00	37.69034	(87040521)	TRS	3500.00	90.00	27.85625	(87082903)
TRS	4000.00	90.00	23.12699	(87082903)	TRS	4500.00	90.00	19.21767	(87082903)
TRS	5000.00	90.00	16.08305	(87082903)	TRS	533.00	100.00	209.52223	(87093021)
TRS	700.00	100.00	122.15665	(87093021)	TRS	1100.00	100.00	77.62278	(87041103)
TRS	1500.00	100.00	61.92134c	(87092021)	TRS	2000.00	100.00	54.78469	(87011706)
TRS	2500.00	100.00	47.62581	(87011706)	TRS	3000.00	100.00	39.45811	(87011706)
TRS	3500.00	100.00	32.49069	(87011706)	TRS	4000.00	100.00	26.95514	(87011706)
TRS	4500.00	100.00	22.61732	(87011706)	TRS	5000.00	100.00	19.20590	(87011706)
TRS	457.00	110.00	174.64055	(87011315)	TRS	700.00	110.00	144.84550	(87121106)
TRS	1100.00	110.00	131.51678	(87093021)	TRS	1500.00	110.00	84.92968	(87093021)
TRS	2000.00	110.00	46.17901	(87093021)	TRS	2500.00	110.00	36.75486c	(87090624)
TRS	3000.00	110.00	34.74576	(87042824)	TRS	3500.00	110.00	33.85187	(87042824)
TRS	4000.00	110.00	31.46366	(87042824)	TRS	4500.00	110.00	28.67294	(87042824)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	25.94071	(87042824)	TRS	457.00	120.00	188.00787	(87020806)
TRS	700.00	120.00	144.36446	(87081321)	TRS	1100.00	120.00	114.22690	(87093024)
TRS	1500.00	120.00	78.66814c	(87080721)	TRS	2000.00	120.00	49.61016	(87121106)
TRS	2500.00	120.00	36.68579	(87121106)	TRS	3000.00	120.00	32.60312c	(87021121)
TRS	3500.00	120.00	30.56464c	(87021121)	TRS	4000.00	120.00	27.49381c	(87021121)
TRS	4500.00	120.00	24.35612c	(87021121)	TRS	5000.00	120.00	21.50033c	(87021121)
TRS	457.00	130.00	194.57887	(87081009)	TRS	700.00	130.00	137.78291	(87121718)
TRS	1100.00	130.00	112.63611	(87041803)	TRS	1500.00	130.00	79.12794	(87081321)
TRS	2000.00	130.00	52.75777	(87081321)	TRS	2500.00	130.00	44.13875	(87010724)
TRS	3000.00	130.00	40.36283	(87010724)	TRS	3500.00	130.00	35.89350	(87010724)
TRS	4000.00	130.00	31.71539	(87010724)	TRS	4500.00	130.00	28.04522	(87010724)
TRS	5000.00	130.00	24.90076	(87010724)	TRS	457.00	140.00	193.49391	(87102903)
TRS	700.00	140.00	139.24614	(87081009)	TRS	1100.00	140.00	111.26702c	(87081721)
TRS	1500.00	140.00	59.72091c	(87081721)	TRS	2000.00	140.00	53.85974	(87121718)
TRS	2500.00	140.00	44.74719	(87121718)	TRS	3000.00	140.00	36.52111c	(87042506)
TRS	3500.00	140.00	34.94351	(87020806)	TRS	4000.00	140.00	36.08648	(87020806)
TRS	4500.00	140.00	35.72096	(87020806)	TRS	5000.00	140.00	34.53839	(87020806)
TRS	457.00	150.00	124.62904	(87020918)	TRS	700.00	150.00	122.56240	(87042521)
TRS	1100.00	150.00	114.41361	(87102903)	TRS	1500.00	150.00	76.96857	(87092103)
TRS	2000.00	150.00	55.71359	(87100103)	TRS	2500.00	150.00	40.30295	(87102821)
TRS	3000.00	150.00	32.18064	(87102821)	TRS	3500.00	150.00	29.18218	(87081006)
TRS	4000.00	150.00	29.64884c	(87031924)	TRS	4500.00	150.00	29.74523c	(87031924)
TRS	5000.00	150.00	29.07278c	(87031924)	TRS	488.00	160.00	115.29043	(87021815)
TRS	700.00	160.00	99.32621	(87112503)	TRS	1100.00	160.00	75.43093c	(87021821)
TRS	1500.00	160.00	72.42672	(87010303)	TRS	2000.00	160.00	54.10988	(87010303)
TRS	2500.00	160.00	40.28539	(87042521)	TRS	3000.00	160.00	38.49452	(87042521)
TRS	3500.00	160.00	35.87743	(87042521)	TRS	4000.00	160.00	33.06770	(87042521)
TRS	4500.00	160.00	30.33480	(87042521)	TRS	5000.00	160.00	27.80113	(87042521)
TRS	533.00	170.00	123.67768	(87062809)	TRS	700.00	170.00	103.40873	(87012021)
TRS	1100.00	170.00	72.99732	(87110521)	TRS	1500.00	170.00	48.28378	(87021006)
TRS	2000.00	170.00	42.83304	(87111906)	TRS	2500.00	170.00	36.53746	(87111906)
TRS	3000.00	170.00	30.96934	(87111906)	TRS	3500.00	170.00	28.17135	(87101503)
TRS	4000.00	170.00	25.30103	(87101503)	TRS	4500.00	170.00	22.63152	(87101503)
TRS	5000.00	170.00	20.26481	(87101503)	TRS	610.00	180.00	148.07274	(87031224)
TRS	700.00	180.00	133.90591	(87031224)	TRS	1100.00	180.00	81.48676	(87071906)
TRS	1500.00	180.00	62.76980	(87102506)	TRS	2000.00	180.00	50.07370	(87102506)
TRS	2500.00	180.00	39.63179	(87102506)	TRS	3000.00	180.00	31.89420	(87102506)
TRS	3500.00	180.00	26.19640	(87102506)	TRS	4000.00	180.00	21.91926	(87102506)
TRS	4500.00	180.00	19.20506	(87101506)	TRS	5000.00	180.00	17.04439	(87101506)
TRS	750.00	190.00	99.24072c	(87110506)	TRS	1100.00	190.00	78.13660c	(87110506)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN					
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)		
TRS	1500.00	190.00	58.43509c (87110506)	TRS	2000.00	190.00	42.82276 (87101303)		
TRS	2500.00	190.00	39.48364 (87110106)	TRS	3000.00	190.00	37.69345 (87110106)		
TRS	3500.00	190.00	35.22019 (87110106)	TRS	4000.00	190.00	32.64038 (87110106)		
TRS	4500.00	190.00	30.18082 (87110106)	TRS	5000.00	190.00	27.92100 (87110106)		
TRS	1829.00	200.00	58.69796 (87121309)	TRS	2000.00	200.00	55.30310 (87121309)		
TRS	2500.00	200.00	47.17608 (87121309)	TRS	3000.00	200.00	41.06699 (87121309)		
TRS	3500.00	200.00	36.34793 (87121309)	TRS	4000.00	200.00	32.60452 (87121309)		
TRS	4500.00	200.00	29.56711 (87121309)	TRS	5000.00	200.00	27.05544 (87121309)		
TRS	1829.00	210.00	65.29602 (87031215)	TRS	2000.00	210.00	59.44617 (87031215)		
TRS	2500.00	210.00	46.36600 (87031215)	TRS	3000.00	210.00	37.47971 (87031215)		
TRS	3500.00	210.00	31.08370 (87031215)	TRS	4000.00	210.00	26.30369 (87031215)		
TRS	4500.00	210.00	22.62551 (87031215)	TRS	5000.00	210.00	19.72615 (87031215)		
TRS	1981.00	220.00	32.49205 (87102403)	TRS	2000.00	220.00	32.20181 (87102403)		
TRS	2500.00	220.00	25.81960 (87102403)	TRS	3000.00	220.00	21.26811 (87102403)		
TRS	3500.00	220.00	17.88799 (87102403)	TRS	4000.00	220.00	15.30277 (87102403)		
TRS	4500.00	220.00	13.27649 (87102403)	TRS	5000.00	220.00	12.28759 (87053003)		
TRS	2134.00	230.00	41.59946 (87110124)	TRS	2500.00	230.00	35.81779 (87110124)		
TRS	3000.00	230.00	29.76251 (87110124)	TRS	3500.00	230.00	25.19009 (87110124)		
TRS	4000.00	230.00	21.65313 (87110124)	TRS	4500.00	230.00	18.85788 (87110124)		
TRS	5000.00	230.00	16.60719 (87110124)	TRS	2438.00	240.00	23.16994 (87012115)		
TRS	2500.00	240.00	22.58607 (87012115)	TRS	3000.00	240.00	18.60873 (87012115)		
TRS	3500.00	240.00	15.63169 (87012115)	TRS	4000.00	240.00	13.34786 (87012115)		
TRS	4500.00	240.00	11.55649 (87012115)	TRS	5000.00	240.00	10.12385 (87012115)		
TRS	2896.00	250.00	26.14014 (87121321)	TRS	3000.00	250.00	25.47964 (87121321)		
TRS	3500.00	250.00	22.61282 (87121321)	TRS	4000.00	250.00	20.20625 (87121321)		
TRS	4500.00	250.00	18.18119 (87121321)	TRS	5000.00	250.00	16.46594 (87121321)		
TRS	3048.00	260.00	39.68387 (87120803)	TRS	3500.00	260.00	35.09341 (87120803)		
TRS	4000.00	260.00	30.83574 (87120803)	TRS	4500.00	260.00	27.32079 (87120803)		
TRS	5000.00	260.00	24.40539 (87120803)	TRS	3658.00	270.00	29.10400c (87091209)		
TRS	4000.00	270.00	26.42797c (87091209)	TRS	4500.00	270.00	23.66363 (87122324)		
TRS	5000.00	270.00	21.54202 (87122324)	TRS	3962.00	280.00	21.84362 (87032921)		
TRS	4000.00	280.00	21.55752 (87032921)	TRS	4500.00	280.00	18.32074 (87051109)		
TRS	5000.00	280.00	16.34933c (87031806)	TRS	4572.00	290.00	20.21524 (87060121)		
TRS	5000.00	290.00	18.33968c (87082103)	TRS	5182.00	300.00	24.25722c (87010321)		
TRS	4801.00	310.00	17.81349 (87081306)	TRS	5000.00	310.00	17.76929 (87081306)		
TRS	4875.00	320.00	30.38926 (87121421)	TRS	5000.00	320.00	29.96657 (87121421)		
TRS	6000.00	330.00	16.35486 (87080921)	TRS	5500.00	340.00	22.11047c (87122524)		
TRS	5250.00	350.00	26.62944 (87022821)	TRS	5125.00	360.00	19.32244c (87042724)		

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	52.59399	(87061301)	TRS	4500.00	20.00	57.20158	(87080124)
TRS	5000.00	20.00	51.59551	(87080124)	TRS	2500.00	30.00	88.98535	(87060203)
TRS	3000.00	30.00	78.29988	(87060203)	TRS	3500.00	30.00	69.70692	(87060203)
TRS	4000.00	30.00	62.67056	(87060203)	TRS	4500.00	30.00	56.81322	(87060203)
TRS	5000.00	30.00	51.86767	(87060203)	TRS	2500.00	40.00	80.07239	(87011512)
TRS	3000.00	40.00	67.22856	(87011512)	TRS	3500.00	40.00	58.05007	(87011512)
TRS	4000.00	40.00	51.16913	(87011512)	TRS	4500.00	40.00	45.81439	(87011512)
TRS	5000.00	40.00	41.52401	(87011512)	TRS	1500.00	50.00	85.03226	(87093015)
TRS	2000.00	50.00	62.18073	(87093015)	TRS	2500.00	50.00	47.46791	(87093015)
TRS	3000.00	50.00	38.54266	(87121517)	TRS	3500.00	50.00	32.15839	(87121517)
TRS	4000.00	50.00	28.89954	(87080505)	TRS	4500.00	50.00	26.56108	(87080505)
TRS	5000.00	50.00	24.65677	(87011820)	TRS	1500.00	60.00	84.49454	(87022718)
TRS	2000.00	60.00	69.37323	(87022718)	TRS	2500.00	60.00	58.61249	(87011614)
TRS	3000.00	60.00	49.86500	(87011614)	TRS	3500.00	60.00	42.75998	(87011614)
TRS	4000.00	60.00	37.03986	(87011614)	TRS	4500.00	60.00	32.41119	(87011614)
TRS	5000.00	60.00	28.62858	(87011614)	TRS	1500.00	70.00	103.43136	(87062308)
TRS	2000.00	70.00	81.64943	(87112817)	TRS	2500.00	70.00	76.12856	(87112817)
TRS	3000.00	70.00	68.87257	(87112817)	TRS	3500.00	70.00	62.09535	(87112817)
TRS	4000.00	70.00	56.24208	(87112817)	TRS	4500.00	70.00	51.28586	(87112817)
TRS	5000.00	70.00	47.09195	(87112817)	TRS	838.00	80.00	224.45888	(87082320)
TRS	1100.00	80.00	180.47168	(87080108)	TRS	1500.00	80.00	150.89093	(87052019)
TRS	2000.00	80.00	112.65524	(87052019)	TRS	2500.00	80.00	89.69709	(87010821)
TRS	3000.00	80.00	75.86654	(87021503)	TRS	3500.00	80.00	68.93169	(87021503)
TRS	4000.00	80.00	61.32092	(87021503)	TRS	4500.00	80.00	54.59676	(87062421)
TRS	5000.00	80.00	51.07362	(87062421)	TRS	686.00	90.00	260.67090	(87071220)
TRS	1100.00	90.00	194.75252	(87081120)	TRS	1500.00	90.00	141.00470	(87020318)
TRS	2000.00	90.00	104.44630	(87020318)	TRS	2500.00	90.00	110.91812	(87082903)
TRS	3000.00	90.00	99.12526	(87082903)	TRS	3500.00	90.00	83.56876	(87082903)
TRS	4000.00	90.00	69.38098	(87082903)	TRS	4500.00	90.00	57.65300	(87082903)
TRS	5000.00	90.00	48.24914	(87082903)	TRS	533.00	100.00	270.69940	(87071307)
TRS	700.00	100.00	235.63454	(87071319)	TRS	1100.00	100.00	187.52686	(87110921)
TRS	1500.00	100.00	147.59146	(87072724)	TRS	2000.00	100.00	98.27377	(87092323)
TRS	2500.00	100.00	89.36637	(87092323)	TRS	3000.00	100.00	80.12232	(87071123)
TRS	3500.00	100.00	69.50376	(87071123)	TRS	4000.00	100.00	58.54715	(87071123)
TRS	4500.00	100.00	48.99252	(87071123)	TRS	5000.00	100.00	44.54010	(87120102)
TRS	457.00	110.00	291.29285	(87061715)	TRS	700.00	110.00	263.39725	(87080719)
TRS	1100.00	110.00	174.18565	(87112815)	TRS	1500.00	110.00	159.07487	(87042109)
TRS	2000.00	110.00	109.69015	(87090624)	TRS	2500.00	110.00	110.26457	(87090624)
TRS	3000.00	110.00	90.00013	(87090624)	TRS	3500.00	110.00	69.14679	(87090624)
TRS	4000.00	110.00	59.27864	(87050102)	TRS	4500.00	110.00	55.39857	(87050102)

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	: 5000.00	110.00	50.88340	(87050102)	TRS	: 457.00	120.00	279.71512	(87081818)
TRS	: 700.00	120.00	257.68719	(87073018)	TRS	: 1100.00	120.00	186.12378	(87080819)
TRS	: 1500.00	120.00	143.99680	(87080719)	TRS	: 2000.00	120.00	121.91606	(87050104)
TRS	: 2500.00	120.00	105.44244	(87040704)	TRS	: 3000.00	120.00	88.32243	(87040704)
TRS	: 3500.00	120.00	68.95531	(87040704)	TRS	: 4000.00	120.00	57.89603	(87100304)
TRS	: 4500.00	120.00	54.58952	(87100304)	TRS	: 5000.00	120.00	51.62974	(87111122)
TRS	: 457.00	130.00	273.06467	(87072118)	TRS	: 700.00	130.00	244.20644	(87042918)
TRS	: 1100.00	130.00	175.21404	(87081319)	TRS	: 1500.00	130.00	134.80644	(87010305)
TRS	: 2000.00	130.00	103.94267	(87070624)	TRS	: 2500.00	130.00	85.37991	(87120104)
TRS	: 3000.00	130.00	75.15067	(87011208)	TRS	: 3500.00	130.00	68.53240	(87011208)
TRS	: 4000.00	130.00	62.17925	(87011208)	TRS	: 4500.00	130.00	56.51437	(87011208)
TRS	: 5000.00	130.00	51.58727	(87011208)	TRS	: 457.00	140.00	248.82916	(87032217)
TRS	: 700.00	140.00	226.90941	(87080919)	TRS	: 1100.00	140.00	181.50188	(87081719)
TRS	: 1500.00	140.00	138.60989	(87092424)	TRS	: 2000.00	140.00	124.31051	(87081304)
TRS	: 2500.00	140.00	94.13237	(87081303)	TRS	: 3000.00	140.00	94.18277	(87081303)
TRS	: 3500.00	140.00	85.03375	(87081303)	TRS	: 4000.00	140.00	73.70186	(87081303)
TRS	: 4500.00	140.00	62.96361	(87081303)	TRS	: 5000.00	140.00	53.65519	(87081303)
TRS	: 457.00	150.00	279.51074	(87071619)	TRS	: 700.00	150.00	237.88860	(87100218)
TRS	: 1100.00	150.00	177.66579	(87032217)	TRS	: 1500.00	150.00	130.28282	(87011711)
TRS	: 2000.00	150.00	112.60912	(87121908)	TRS	: 2500.00	150.00	81.67664	(87081004)
TRS	: 3000.00	150.00	76.76768	(87081004)	TRS	: 3500.00	150.00	66.85523	(87081004)
TRS	: 4000.00	150.00	60.18370	(87081722)	TRS	: 4500.00	150.00	55.49651	(87081722)
TRS	: 5000.00	150.00	50.55671	(87081722)	TRS	: 488.00	160.00	233.11877	(87052117)
TRS	: 700.00	160.00	198.76964	(87010809)	TRS	: 1100.00	160.00	175.38448	(87071619)
TRS	: 1500.00	160.00	125.95164	(87010302)	TRS	: 2000.00	160.00	98.50340	(87102106)
TRS	: 2500.00	160.00	102.28030	(87102106)	TRS	: 3000.00	160.00	91.68053	(87102106)
TRS	: 3500.00	160.00	78.11263	(87102106)	TRS	: 4000.00	160.00	65.57141	(87102106)
TRS	: 4500.00	160.00	55.02284	(87102106)	TRS	: 5000.00	160.00	46.42893	(87102106)
TRS	: 533.00	170.00	233.73059	(87072517)	TRS	: 700.00	170.00	204.04276	(87062808)
TRS	: 1100.00	170.00	147.05130	(87111901)	TRS	: 1500.00	170.00	140.25064	(87090705)
TRS	: 2000.00	170.00	112.07297	(87041823)	TRS	: 2500.00	170.00	102.63343	(87041823)
TRS	: 3000.00	170.00	86.54265	(87041823)	TRS	: 3500.00	170.00	71.42609	(87041823)
TRS	: 4000.00	170.00	59.69681	(87092106)	TRS	: 4500.00	170.00	53.18592	(87092106)
TRS	: 5000.00	170.00	47.37920	(87092106)	TRS	: 610.00	180.00	241.29967	(87082519)
TRS	: 700.00	180.00	224.33826	(87082519)	TRS	: 1100.00	180.00	165.58560	(87062019)
TRS	: 1500.00	180.00	140.80299	(87090706)	TRS	: 2000.00	180.00	100.76575	(87090706)
TRS	: 2500.00	180.00	78.29091	(87111505)	TRS	: 3000.00	180.00	63.30659	(87052302)
TRS	: 3500.00	180.00	60.68628	(87052302)	TRS	: 4000.00	180.00	56.95298	(87052302)
TRS	: 4500.00	180.00	52.95189	(87052302)	TRS	: 5000.00	180.00	49.05954	(87052302)
TRS	: 750.00	190.00	224.42921	(87050606)	TRS	: 1100.00	190.00	169.08510	(87060523)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	142.12233	(87060523)	TRS	2000.00	190.00	118.67103	(87090704)
TRS	2500.00	190.00	103.47288	(87090704)	TRS	3000.00	190.00	88.81190	(87090704)
TRS	3500.00	190.00	76.40211	(87090704)	TRS	4000.00	190.00	66.23232	(87090704)
TRS	4500.00	190.00	57.93153	(87090704)	TRS	5000.00	190.00	53.00745	(87103105)
TRS	1829.00	200.00	168.52234	(87121308)	TRS	2000.00	200.00	158.43594	(87121308)
TRS	2500.00	200.00	134.58449	(87121308)	TRS	3000.00	200.00	116.91264	(87121308)
TRS	3500.00	200.00	103.38607	(87121308)	TRS	4000.00	200.00	92.72692	(87121308)
TRS	4500.00	200.00	84.11967	(87121308)	TRS	5000.00	200.00	77.02644	(87121308)
TRS	1829.00	210.00	120.35513	(87112507)	TRS	2000.00	210.00	113.75417	(87112507)
TRS	2500.00	210.00	97.88723	(87112507)	TRS	3000.00	210.00	85.71606	(87112507)
TRS	3500.00	210.00	76.06714	(87112507)	TRS	4000.00	210.00	68.22344	(87112507)
TRS	4500.00	210.00	61.72097	(87112507)	TRS	5000.00	210.00	56.24473	(87112507)
TRS	1981.00	220.00	69.20233	(87032805)	TRS	2000.00	220.00	68.66855	(87032805)
TRS	2500.00	220.00	56.53875	(87032805)	TRS	3000.00	220.00	48.17731	(87022410)
TRS	3500.00	220.00	42.14423	(87022410)	TRS	4000.00	220.00	37.48832	(87022410)
TRS	4500.00	220.00	33.78463	(87022410)	TRS	5000.00	220.00	30.76611	(87022410)
TRS	2134.00	230.00	64.47595	(87020614)	TRS	2500.00	230.00	55.90331	(87020614)
TRS	3000.00	230.00	46.76590	(87020614)	TRS	3500.00	230.00	39.78037	(87020614)
TRS	4000.00	230.00	34.32618	(87020614)	TRS	4500.00	230.00	29.98458	(87020614)
TRS	5000.00	230.00	26.66398	(87052607)	TRS	2438.00	240.00	58.39083	(87072507)
TRS	2500.00	240.00	57.09256	(87072507)	TRS	3000.00	240.00	47.98579	(87072507)
TRS	3500.00	240.00	40.89114	(87072507)	TRS	4000.00	240.00	35.29921	(87072507)
TRS	4500.00	240.00	30.82665	(87072507)	TRS	5000.00	240.00	27.19685	(87072507)
TRS	2896.00	250.00	48.40503	(87062221)	TRS	3000.00	250.00	47.70707	(87062221)
TRS	3500.00	250.00	44.24302	(87062221)	TRS	4000.00	250.00	40.86018	(87062221)
TRS	4500.00	250.00	37.72189	(87062221)	TRS	5000.00	250.00	34.87457	(87110824)
TRS	3048.00	260.00	73.33167	(87051324)	TRS	3500.00	260.00	65.90928	(87041403)
TRS	4000.00	260.00	58.31813	(87041403)	TRS	4500.00	260.00	52.11995	(87072202)
TRS	5000.00	260.00	48.65643	(87072202)	TRS	3658.00	270.00	72.27943	(87082905)
TRS	4000.00	270.00	64.13329	(87102022)	TRS	4500.00	270.00	62.24153	(87102022)
TRS	5000.00	270.00	59.46882	(87102022)	TRS	3962.00	280.00	59.42540	(87031805)
TRS	4000.00	280.00	59.06767	(87031805)	TRS	4500.00	280.00	54.07710	(87031805)
TRS	5000.00	280.00	49.04799	(87031805)	TRS	4572.00	290.00	59.68436	(87122521)
TRS	5000.00	290.00	55.01904	(87082102)	TRS	5182.00	300.00	49.33305	(87091521)
TRS	4801.00	310.00	53.44047	(87081305)	TRS	5000.00	310.00	53.30786	(87081305)
TRS	4875.00	320.00	45.03241	(87060324)	TRS	5000.00	320.00	43.22099	(87060324)
TRS	6000.00	330.00	38.35882	(87042722)	TRS	5500.00	340.00	59.07331	(87083006)
TRS	5250.00	350.00	61.47595	(87083001)	TRS	5125.00	360.00	57.96732	(87042723)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS	7.16714 AT (	395.77,	-228.50,	0.00,	0.00)	DP NA
	2ND HIGHEST VALUE IS	7.13596 AT (	429.44,	-156.30,	0.00,	0.00)	DP NA
	3RD HIGHEST VALUE IS	6.53024 AT (	350.08,	-293.75,	0.00,	0.00)	DP NA
	4TH HIGHEST VALUE IS	6.43942 AT (	524.90,	-92.55,	0.00,	0.00)	DP NA
	5TH HIGHEST VALUE IS	5.54199 AT (	293.75,	-350.08,	0.00,	0.00)	DP NA
	6TH HIGHEST VALUE IS	5.08623 AT (	228.50,	-395.77,	0.00,	0.00)	DP NA
	7TH HIGHEST VALUE IS	4.99393 AT (	657.78,	-239.41,	0.00,	0.00)	DP NA
	8TH HIGHEST VALUE IS	4.96213 AT (	606.22,	-350.00,	0.00,	0.00)	DP NA
	9TH HIGHEST VALUE IS	4.93414 AT (	536.23,	-449.95,	0.00,	0.00)	DP NA
	10TH HIGHEST VALUE IS	4.84643 AT (	686.00,	0.00,	0.00,	0.00)	DP NA

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK
		(YYMMDDHH)			GRID-ID
HIGH 1ST HIGH VALUE IS	78.81228c	ON 87011324: AT (	429.44, -156.30, 0.00,	0.00)	DP NA

- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	149.89279c ON 87081008: AT (350.08, -293.75, 0.00, 0.00)	DP	NA
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** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

MODELOPTS: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 209.52223	ON 87093021: AT (	524.90, -92.55, 0.00,	0.00) DP	NA

- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 291.29285	ON 87061715: AT (	429.44, -156.30, 0.00, 0.00)	DP	NA

- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

CO STARTING
 CO TITLEONE 1988 GEORGIA-PACIFIC BLEACH PLANT SCRUBBER STACK 12/11/98
 CO TITLETWO MAXIMUM FUTURE CO EMISSION RATE
 CO MODELOPT DFAULT CONC RURAL NOCMPL
 CO AVERTIME PERIOD 24 8 3 1
 CO POLLUTID CO
 CO DCAYCOEF .000000
 CO RUNORNOT RUN
 CO FINISHED

SO STARTING

Source Location Cards:

** SRCID SRCTYP XS YS ZS
 ** TRS INCINERATOR STACK IS ORIGIN ONLY
 BLEACH PLANT BYPASS STACK
 SO LOCATION BLCHSCRB POINT 109.3 141.5 .0
 SO LOCATION TRS POINT 0.0 0.0 .0

Source Parameter Cards:

** POINT: SRCID QS HS TS VS DS
 VOLUME: SRCID QS HS SYINIT SZINIT
 AREA: SRCID QS HS XINIT
 SO SRCPARAM BLCHSCRB 8.0 36.0 338.7 9.30 1.22
 SRCPARAM TRS 0.00 76.2 533.2 32.03 0.94

BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.64
BUILDHGT	BLCHSCRB	21.64	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	18.95	21.64	21.49
BUILDHGT	BLCHSCRB	22.25	25.76	25.76	25.76	25.76	25.76
SO BUILDHGT	BLCHSCRB	25.76	25.76	25.76	25.76	25.76	25.76
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	36.02	35.44
BUILDWID	BLCHSCRB	37.92	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33
SO BUILDWID	BLCHSCRB	102.55	103.66	101.63	29.38	178.89	97.90
BUILDWID	BLCHSCRB	90.32	100.84	103.51	103.03	99.42	92.78
BUILDWID	BLCHSCRB	83.33	71.35	68.68	81.13	91.11	98.33

EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS/CUBIC-METER)

SO SRCGROUP ALL
 SO FINISHED

STARTING

** RECEPTOR ORIGIN IS TRS INCINERATOR STACK
 DISCPOLR TRS 5000.00 10.00
 DISCPOLR TRS 4500.00 20.00
 RE DISCPOLR TRS 5000.00 20.00
 RE DISCPOLR TRS 2500.00 30.00
 DISCPOLR TRS 3000.00 30.00
 RE DISCPOLR TRS 3500.00 30.00
 RE DISCPOLR TRS 4000.00 30.00
 DISCPOLR TRS 4500.00 30.00
 DISCPOLR TRS 5000.00 30.00
 RE DISCPOLR TRS 2500.00 40.00

	DISCPOLR TRS	3000.00	40.00
RE	DISCPOLR TRS	3500.00	40.00
RE	DISCPOLR TRS	4000.00	40.00
	DISCPOLR TRS	4500.00	40.00
	DISCPOLR TRS	5000.00	40.00
RE	DISCPOLR TRS	1500.00	50.00
	DISCPOLR TRS	2000.00	50.00
	DISCPOLR TRS	2500.00	50.00
RE	DISCPOLR TRS	3000.00	50.00
RE	DISCPOLR TRS	3500.00	50.00
	DISCPOLR TRS	4000.00	50.00
RE	DISCPOLR TRS	4500.00	50.00
RE	DISCPOLR TRS	5000.00	50.00
	DISCPOLR TRS	1500.00	60.00
	DISCPOLR TRS	2000.00	60.00
RE	DISCPOLR TRS	2500.00	60.00
RE	DISCPOLR TRS	3000.00	60.00
	DISCPOLR TRS	3500.00	60.00
RE	DISCPOLR TRS	4000.00	60.00
RE	DISCPOLR TRS	4500.00	60.00
	DISCPOLR TRS	5000.00	60.00
	DISCPOLR TRS	1500.00	70.00
RE	DISCPOLR TRS	2000.00	70.00
	DISCPOLR TRS	2500.00	70.00
	DISCPOLR TRS	3000.00	70.00
RE	DISCPOLR TRS	3500.00	70.00
RE	DISCPOLR TRS	4000.00	70.00
	DISCPOLR TRS	4500.00	70.00
RE	DISCPOLR TRS	5000.00	70.00
RE	DISCPOLR TRS	838.00	80.00
	DISCPOLR TRS	1100.00	80.00
	DISCPOLR TRS	1500.00	80.00
RE	DISCPOLR TRS	2000.00	80.00
	DISCPOLR TRS	2500.00	80.00
	DISCPOLR TRS	3000.00	80.00
RE	DISCPOLR TRS	3500.00	80.00
RE	DISCPOLR TRS	4000.00	80.00
	DISCPOLR TRS	4500.00	80.00
RE	DISCPOLR TRS	5000.00	80.00
RE	DISCPOLR TRS	686.00	90.00
	DISCPOLR TRS	1100.00	90.00
	DISCPOLR TRS	1500.00	90.00
RE	DISCPOLR TRS	2000.00	90.00
RE	DISCPOLR TRS	2500.00	90.00
	DISCPOLR TRS	3000.00	90.00
RE	DISCPOLR TRS	3500.00	90.00
RE	DISCPOLR TRS	4000.00	90.00
	DISCPOLR TRS	4500.00	90.00
RE	DISCPOLR TRS	5000.00	90.00
RE	DISCPOLR TRS	533.00	100.00
	DISCPOLR TRS	700.00	100.00
	DISCPOLR TRS	1100.00	100.00
RE	DISCPOLR TRS	1500.00	100.00
RE	DISCPOLR TRS	2000.00	100.00
	DISCPOLR TRS	2500.00	100.00
RE	DISCPOLR TRS	3000.00	100.00
RE	DISCPOLR TRS	3500.00	100.00
	DISCPOLR TRS	4000.00	100.00
	DISCPOLR TRS	4500.00	100.00
RE	DISCPOLR TRS	5000.00	100.00

DISCPOLR TRS	457.00	110.00
DISCPOLR TRS	700.00	110.00
RE DISCPOLR TRS	1100.00	110.00
DISCPOLR TRS	1500.00	110.00
DISCPOLR TRS	2000.00	110.00
RE DISCPOLR TRS	2500.00	110.00
RE DISCPOLR TRS	3000.00	110.00
DISCPOLR TRS	3500.00	110.00
RE DISCPOLR TRS	4000.00	110.00
RE DISCPOLR TRS	4500.00	110.00
DISCPOLR TRS	5000.00	110.00
DISCPOLR TRS	457.00	120.00
RE DISCPOLR TRS	700.00	120.00
DISCPOLR TRS	1100.00	120.00
DISCPOLR TRS	1500.00	120.00
RE DISCPOLR TRS	2000.00	120.00
RE DISCPOLR TRS	2500.00	120.00
DISCPOLR TRS	3000.00	120.00
RE DISCPOLR TRS	3500.00	120.00
RE DISCPOLR TRS	4000.00	120.00
DISCPOLR TRS	4500.00	120.00
DISCPOLR TRS	5000.00	120.00
RE DISCPOLR TRS	457.00	130.00
RE DISCPOLR TRS	700.00	130.00
DISCPOLR TRS	1100.00	130.00
RE DISCPOLR TRS	1500.00	130.00
RE DISCPOLR TRS	2000.00	130.00
DISCPOLR TRS	2500.00	130.00
DISCPOLR TRS	3000.00	130.00
RE DISCPOLR TRS	3500.00	130.00
DISCPOLR TRS	4000.00	130.00
DISCPOLR TRS	4500.00	130.00
RE DISCPOLR TRS	5000.00	130.00
RE DISCPOLR TRS	457.00	140.00
DISCPOLR TRS	700.00	140.00
RE DISCPOLR TRS	1100.00	140.00
RE DISCPOLR TRS	1500.00	140.00
DISCPOLR TRS	2000.00	140.00
DISCPOLR TRS	2500.00	140.00
RE DISCPOLR TRS	3000.00	140.00
DISCPOLR TRS	3500.00	140.00
DISCPOLR TRS	4000.00	140.00
RE DISCPOLR TRS	4500.00	140.00
RE DISCPOLR TRS	5000.00	140.00
DISCPOLR TRS	457.00	150.00
RE DISCPOLR TRS	700.00	150.00
RE DISCPOLR TRS	1100.00	150.00
DISCPOLR TRS	1500.00	150.00
DISCPOLR TRS	2000.00	150.00
RE DISCPOLR TRS	2500.00	150.00
RE DISCPOLR TRS	3000.00	150.00
RE DISCPOLR TRS	3500.00	150.00
RE DISCPOLR TRS	4000.00	150.00
RE DISCPOLR TRS	4500.00	150.00
RE DISCPOLR TRS	5000.00	150.00
RE DISCPOLR TRS	488.00	160.00
RE DISCPOLR TRS	700.00	160.00
RE DISCPOLR TRS	1100.00	160.00
RE DISCPOLR TRS	1500.00	160.00
RE DISCPOLR TRS	2000.00	160.00

DISCPOLR TRS	2500.00	160.00
DISCPOLR TRS	3000.00	160.00
RE DISCPOLR TRS	3500.00	160.00
DISCPOLR TRS	4000.00	160.00
DISCPOLR TRS	4500.00	160.00
RE DISCPOLR TRS	5000.00	160.00
DISCPOLR TRS	533.00	170.00
DISCPOLR TRS	700.00	170.00
RE DISCPOLR TRS	1100.00	170.00
RE DISCPOLR TRS	1500.00	170.00
DISCPOLR TRS	2000.00	170.00
DISCPOLR TRS	2500.00	170.00
RE DISCPOLR TRS	3000.00	170.00
DISCPOLR TRS	3500.00	170.00
DISCPOLR TRS	4000.00	170.00
RE DISCPOLR TRS	4500.00	170.00
DISCPOLR TRS	5000.00	170.00
DISCPOLR TRS	610.00	180.00
RE DISCPOLR TRS	700.00	180.00
RE DISCPOLR TRS	1100.00	180.00
DISCPOLR TRS	1500.00	180.00
DISCPOLR TRS	2000.00	180.00
RE DISCPOLR TRS	2500.00	180.00
DISCPOLR TRS	3000.00	180.00
DISCPOLR TRS	3500.00	180.00
RE DISCPOLR TRS	4000.00	180.00
RE DISCPOLR TRS	4500.00	180.00
DISCPOLR TRS	5000.00	180.00
DISCPOLR TRS	750.00	190.00
RE DISCPOLR TRS	1100.00	190.00
DISCPOLR TRS	1500.00	190.00
DISCPOLR TRS	2000.00	190.00
RE DISCPOLR TRS	2500.00	190.00
DISCPOLR TRS	3000.00	190.00
DISCPOLR TRS	3500.00	190.00
RE DISCPOLR TRS	4000.00	190.00
RE DISCPOLR TRS	4500.00	190.00
DISCPOLR TRS	5000.00	190.00
DISCPOLR TRS	1829.00	200.00
RE DISCPOLR TRS	2000.00	200.00
DISCPOLR TRS	2500.00	200.00
DISCPOLR TRS	3000.00	200.00
RE DISCPOLR TRS	3500.00	200.00
RE DISCPOLR TRS	4000.00	200.00
DISCPOLR TRS	4500.00	200.00
RE DISCPOLR TRS	5000.00	200.00
RE DISCPOLR TRS	1829.00	210.00
DISCPOLR TRS	2000.00	210.00
DISCPOLR TRS	2500.00	210.00
RE DISCPOLR TRS	3000.00	210.00
DISCPOLR TRS	3500.00	210.00
DISCPOLR TRS	4000.00	210.00
RE DISCPOLR TRS	4500.00	210.00
RE DISCPOLR TRS	5000.00	210.00
DISCPOLR TRS	1981.00	220.00
DISCPOLR TRS	2000.00	220.00
RE DISCPOLR TRS	2500.00	220.00
DISCPOLR TRS	3000.00	220.00
DISCPOLR TRS	3500.00	220.00
RE DISCPOLR TRS	4000.00	220.00

DISCPOLR TRS	4500.00	220.00
RE DISCPOLR TRS	5000.00	220.00
RE DISCPOLR TRS	2134.00	230.00
DISCPOLR TRS	2500.00	230.00
DISCPOLR TRS	3000.00	230.00
RE DISCPOLR TRS	3500.00	230.00
RE DISCPOLR TRS	4000.00	230.00
DISCPOLR TRS	4500.00	230.00
RE DISCPOLR TRS	5000.00	230.00
RE DISCPOLR TRS	2438.00	240.00
DISCPOLR TRS	2500.00	240.00
DISCPOLR TRS	3000.00	240.00
RE DISCPOLR TRS	3500.00	240.00
DISCPOLR TRS	4000.00	240.00
DISCPOLR TRS	4500.00	240.00
RE DISCPOLR TRS	5000.00	240.00
RE DISCPOLR TRS	2896.00	250.00
DISCPOLR TRS	3000.00	250.00
RE DISCPOLR TRS	3500.00	250.00
RE DISCPOLR TRS	4000.00	250.00
DISCPOLR TRS	4500.00	250.00
DISCPOLR TRS	5000.00	250.00
RE DISCPOLR TRS	3048.00	260.00
DISCPOLR TRS	3500.00	260.00
DISCPOLR TRS	4000.00	260.00
RE DISCPOLR TRS	4500.00	260.00
RE DISCPOLR TRS	5000.00	260.00
DISCPOLR TRS	3658.00	270.00
RE DISCPOLR TRS	4000.00	270.00
RE DISCPOLR TRS	4500.00	270.00
DISCPOLR TRS	5000.00	270.00
DISCPOLR TRS	3962.00	280.00
RE DISCPOLR TRS	4000.00	280.00
RE DISCPOLR TRS	4500.00	280.00
DISCPOLR TRS	5000.00	280.00
RE DISCPOLR TRS	4572.00	290.00
RE DISCPOLR TRS	5000.00	290.00
DISCPOLR TRS	5182.00	300.00
DISCPOLR TRS	4801.00	310.00
RE DISCPOLR TRS	5000.00	310.00
DISCPOLR TRS	4875.00	320.00
DISCPOLR TRS	5000.00	320.00
RE DISCPOLR TRS	6000.00	330.00
RE DISCPOLR TRS	5500.00	340.00
DISCPOLR TRS	5250.00	350.00
RE DISCPOLR TRS	5125.00	360.00

RE FINISHED

ME STARTING

INPUTFIL S:\MET\GNSPRL88.BIN UNFORM

ANEMHGHT 22.00 FEET

ME SURFDATA 12816 1988 JACKSONVILLE

ME UAIRDATA 13861 1988 WAYCROSS

WINDCATS 1.50 3.10 5.10 8.20 10.80

ME FINISHED

STARTING

OU RECTABLE ALLAVE FIRST

FINISHED

*** Message Summary For ISC3 Model Setup ***

----- Summary of Total Messages -----

Total of	0 Fatal Error Message(s)
X Total of	1 Warning Message(s)
A Total of	0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
W320 27 PPARM :Input Parameter May Be Out-of-Range for Parameter QS

SETUP Finishes Successfully ***

MODELOPTs: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Simple Terrain Model is Selected

Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

Model Uses NO DRY DEPLETION. DDPLETE = F

Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

Model Uses RURAL Dispersion.

Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 4 Short Term Average(s) of: 24-HR 8-HR 3-HR 1-HR
and Calculates PERIOD Averages

This Run Includes: 2 Source(s); 1 Source Group(s); and 236 Receptor(s)

The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNNING After the Setup Testing.

Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 6.71 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.10000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

Input Runstream File: COCL2.I88

**Output Print File: COCL2.O88

MODELOPTs: CONC

RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE	STACK	STACK	STACK	STACK	BUILDING EMISSION RATE	
					ELEV. (METERS)	HEIGHT (METERS)	TEMP. (DEG.K)	EXIT VEL. (M/SEC)	DIAMETER (METERS)	EXISTS	SCALAR VARY BY
BLCHSCRB	0	0.80000E+01	109.3	141.5	0.0	36.00	338.70	9.30	1.22	YES	
TRS	0	0.00000E+00	0.0	0.0	0.0	76.20	533.20	32.03	0.94	NO	

MODELOPTs: CONC

RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL BLCHSCR, TRS ,

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BLCHSCR B

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK				
1	25.8,	102.6,	0	2	25.8,	103.7,	0	3	25.8,	101.6,	0	4	19.0,	29.4,	0	5	21.6,	36.0,	0	6	21.6,	35.4,	0
7	21.6,	37.9,	0	8	25.8,	100.8,	0	9	25.8,	103.5,	0	10	25.8,	103.0,	0	11	25.8,	99.4,	0	12	25.8,	92.8,	0
13	25.8,	83.3,	0	14	25.8,	71.3,	0	15	25.8,	68.7,	0	16	25.8,	81.1,	0	17	25.8,	91.1,	0	18	25.8,	98.3,	0
19	25.8,	102.6,	0	20	25.8,	103.7,	0	21	25.8,	101.6,	0	22	19.0,	29.4,	0	23	21.6,	178.9,	0	24	21.5,	97.9,	0
25	22.3,	90.3,	0	26	25.8,	100.8,	0	27	25.8,	103.5,	0	28	25.8,	103.0,	0	29	25.8,	99.4,	0	30	25.8,	92.8,	0
31	25.8,	83.3,	0	32	25.8,	71.3,	0	33	25.8,	68.7,	0	34	25.8,	81.1,	0	35	25.8,	91.1,	0	36	25.8,	98.3,	0

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	5000.0,	10.0,	0.0,	0.0);	TRS	:	(	4500.0,	20.0,	0.0,	0.0);
TRS	:	(	5000.0,	20.0,	0.0,	0.0);	TRS	:	(	2500.0,	30.0,	0.0,	0.0);
TRS	:	(	3000.0,	30.0,	0.0,	0.0);	TRS	:	(	3500.0,	30.0,	0.0,	0.0);
TRS	:	(	4000.0,	30.0,	0.0,	0.0);	TRS	:	(	4500.0,	30.0,	0.0,	0.0);
TRS	:	(	5000.0,	30.0,	0.0,	0.0);	TRS	:	(	2500.0,	40.0,	0.0,	0.0);
TRS	:	(	3000.0,	40.0,	0.0,	0.0);	TRS	:	(	3500.0,	40.0,	0.0,	0.0);
TRS	:	(	4000.0,	40.0,	0.0,	0.0);	TRS	:	(	4500.0,	40.0,	0.0,	0.0);
TRS	:	(	5000.0,	40.0,	0.0,	0.0);	TRS	:	(	1500.0,	50.0,	0.0,	0.0);
TRS	:	(	2000.0,	50.0,	0.0,	0.0);	TRS	:	(	2500.0,	50.0,	0.0,	0.0);
TRS	:	(	3000.0,	50.0,	0.0,	0.0);	TRS	:	(	3500.0,	50.0,	0.0,	0.0);
TRS	:	(	4000.0,	50.0,	0.0,	0.0);	TRS	:	(	4500.0,	50.0,	0.0,	0.0);
TRS	:	(	5000.0,	50.0,	0.0,	0.0);	TRS	:	(	1500.0,	60.0,	0.0,	0.0);
TRS	:	(	2000.0,	60.0,	0.0,	0.0);	TRS	:	(	2500.0,	60.0,	0.0,	0.0);
TRS	:	(	3000.0,	60.0,	0.0,	0.0);	TRS	:	(	3500.0,	60.0,	0.0,	0.0);
TRS	:	(	4000.0,	60.0,	0.0,	0.0);	TRS	:	(	4500.0,	60.0,	0.0,	0.0);
TRS	:	(	5000.0,	60.0,	0.0,	0.0);	TRS	:	(	1500.0,	70.0,	0.0,	0.0);
TRS	:	(	2000.0,	70.0,	0.0,	0.0);	TRS	:	(	2500.0,	70.0,	0.0,	0.0);
TRS	:	(	3000.0,	70.0,	0.0,	0.0);	TRS	:	(	3500.0,	70.0,	0.0,	0.0);
TRS	:	(	4000.0,	70.0,	0.0,	0.0);	TRS	:	(	4500.0,	70.0,	0.0,	0.0);
TRS	:	(	5000.0,	70.0,	0.0,	0.0);	TRS	:	(	838.0,	80.0,	0.0,	0.0);
TRS	:	(	1100.0,	80.0,	0.0,	0.0);	TRS	:	(	1500.0,	80.0,	0.0,	0.0);
TRS	:	(	2000.0,	80.0,	0.0,	0.0);	TRS	:	(	2500.0,	80.0,	0.0,	0.0);
TRS	:	(	3000.0,	80.0,	0.0,	0.0);	TRS	:	(	3500.0,	80.0,	0.0,	0.0);
TRS	:	(	4000.0,	80.0,	0.0,	0.0);	TRS	:	(	4500.0,	80.0,	0.0,	0.0);
TRS	:	(	5000.0,	80.0,	0.0,	0.0);	TRS	:	(	686.0,	90.0,	0.0,	0.0);
TRS	:	(	1100.0,	90.0,	0.0,	0.0);	TRS	:	(	1500.0,	90.0,	0.0,	0.0);
TRS	:	(	2000.0,	90.0,	0.0,	0.0);	TRS	:	(	2500.0,	90.0,	0.0,	0.0);
TRS	:	(	3000.0,	90.0,	0.0,	0.0);	TRS	:	(	3500.0,	90.0,	0.0,	0.0);
TRS	:	(	4000.0,	90.0,	0.0,	0.0);	TRS	:	(	4500.0,	90.0,	0.0,	0.0);
TRS	:	(	5000.0,	90.0,	0.0,	0.0);	TRS	:	(	533.0,	100.0,	0.0,	0.0);
TRS	:	(	700.0,	100.0,	0.0,	0.0);	TRS	:	(	1100.0,	100.0,	0.0,	0.0);
TRS	:	(	1500.0,	100.0,	0.0,	0.0);	TRS	:	(	2000.0,	100.0,	0.0,	0.0);
TRS	:	(	2500.0,	100.0,	0.0,	0.0);	TRS	:	(	3000.0,	100.0,	0.0,	0.0);
TRS	:	(	3500.0,	100.0,	0.0,	0.0);	TRS	:	(	4000.0,	100.0,	0.0,	0.0);
TRS	:	(	4500.0,	100.0,	0.0,	0.0);	TRS	:	(	5000.0,	100.0,	0.0,	0.0);
TRS	:	(	457.0,	110.0,	0.0,	0.0);	TRS	:	(	700.0,	110.0,	0.0,	0.0);
TRS	:	(	1100.0,	110.0,	0.0,	0.0);	TRS	:	(	1500.0,	110.0,	0.0,	0.0);
TRS	:	(	2000.0,	110.0,	0.0,	0.0);	TRS	:	(	2500.0,	110.0,	0.0,	0.0);
TRS	:	(	3000.0,	110.0,	0.0,	0.0);	TRS	:	(	3500.0,	110.0,	0.0,	0.0);
TRS	:	(	4000.0,	110.0,	0.0,	0.0);	TRS	:	(	4500.0,	110.0,	0.0,	0.0);
TRS	:	(	5000.0,	110.0,	0.0,	0.0);	TRS	:	(	457.0,	120.0,	0.0,	0.0);
TRS	:	(	700.0,	120.0,	0.0,	0.0);	TRS	:	(	1100.0,	120.0,	0.0,	0.0);
TRS	:	(	1500.0,	120.0,	0.0,	0.0);	TRS	:	(	2000.0,	120.0,	0.0,	0.0);
TRS	:	(	2500.0,	120.0,	0.0,	0.0);	TRS	:	(	3000.0,	120.0,	0.0,	0.0);
TRS	:	(	3500.0,	120.0,	0.0,	0.0);	TRS	:	(	4000.0,	120.0,	0.0,	0.0);

*MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	4500.0,	120.0,	0.0,	0.0);	TRS	:	(	5000.0,	120.0,	0.0,	0.0);
TRS	:	(	457.0,	130.0,	0.0,	0.0);	TRS	:	(	700.0,	130.0,	0.0,	0.0);
TRS	:	(	1100.0,	130.0,	0.0,	0.0);	TRS	:	(	1500.0,	130.0,	0.0,	0.0);
TRS	:	(	2000.0,	130.0,	0.0,	0.0);	TRS	:	(	2500.0,	130.0,	0.0,	0.0);
TRS	:	(	3000.0,	130.0,	0.0,	0.0);	TRS	:	(	3500.0,	130.0,	0.0,	0.0);
TRS	:	(	4000.0,	130.0,	0.0,	0.0);	TRS	:	(	4500.0,	130.0,	0.0,	0.0);
TRS	:	(	5000.0,	130.0,	0.0,	0.0);	TRS	:	(	457.0,	140.0,	0.0,	0.0);
TRS	:	(	700.0,	140.0,	0.0,	0.0);	TRS	:	(	1100.0,	140.0,	0.0,	0.0);
TRS	:	(	1500.0,	140.0,	0.0,	0.0);	TRS	:	(	2000.0,	140.0,	0.0,	0.0);
TRS	:	(	2500.0,	140.0,	0.0,	0.0);	TRS	:	(	3000.0,	140.0,	0.0,	0.0);
TRS	:	(	3500.0,	140.0,	0.0,	0.0);	TRS	:	(	4000.0,	140.0,	0.0,	0.0);
TRS	:	(	4500.0,	140.0,	0.0,	0.0);	TRS	:	(	5000.0,	140.0,	0.0,	0.0);
TRS	:	(	457.0,	150.0,	0.0,	0.0);	TRS	:	(	700.0,	150.0,	0.0,	0.0);
TRS	:	(	1100.0,	150.0,	0.0,	0.0);	TRS	:	(	1500.0,	150.0,	0.0,	0.0);
TRS	:	(	2000.0,	150.0,	0.0,	0.0);	TRS	:	(	2500.0,	150.0,	0.0,	0.0);
TRS	:	(	3000.0,	150.0,	0.0,	0.0);	TRS	:	(	3500.0,	150.0,	0.0,	0.0);
TRS	:	(	4000.0,	150.0,	0.0,	0.0);	TRS	:	(	4500.0,	150.0,	0.0,	0.0);
TRS	:	(	5000.0,	150.0,	0.0,	0.0);	TRS	:	(	488.0,	160.0,	0.0,	0.0);
TRS	:	(	700.0,	160.0,	0.0,	0.0);	TRS	:	(	1100.0,	160.0,	0.0,	0.0);
TRS	:	(	1500.0,	160.0,	0.0,	0.0);	TRS	:	(	2000.0,	160.0,	0.0,	0.0);
TRS	:	(	2500.0,	160.0,	0.0,	0.0);	TRS	:	(	3000.0,	160.0,	0.0,	0.0);
TRS	:	(	3500.0,	160.0,	0.0,	0.0);	TRS	:	(	4000.0,	160.0,	0.0,	0.0);
TRS	:	(	4500.0,	160.0,	0.0,	0.0);	TRS	:	(	5000.0,	160.0,	0.0,	0.0);
TRS	:	(	533.0,	170.0,	0.0,	0.0);	TRS	:	(	700.0,	170.0,	0.0,	0.0);
TRS	:	(	1100.0,	170.0,	0.0,	0.0);	TRS	:	(	1500.0,	170.0,	0.0,	0.0);
TRS	:	(	2000.0,	170.0,	0.0,	0.0);	TRS	:	(	2500.0,	170.0,	0.0,	0.0);
TRS	:	(	3000.0,	170.0,	0.0,	0.0);	TRS	:	(	3500.0,	170.0,	0.0,	0.0);
TRS	:	(	4000.0,	170.0,	0.0,	0.0);	TRS	:	(	4500.0,	170.0,	0.0,	0.0);
TRS	:	(	5000.0,	170.0,	0.0,	0.0);	TRS	:	(	610.0,	180.0,	0.0,	0.0);
TRS	:	(	700.0,	180.0,	0.0,	0.0);	TRS	:	(	1100.0,	180.0,	0.0,	0.0);
TRS	:	(	1500.0,	180.0,	0.0,	0.0);	TRS	:	(	2000.0,	180.0,	0.0,	0.0);
TRS	:	(	2500.0,	180.0,	0.0,	0.0);	TRS	:	(	3000.0,	180.0,	0.0,	0.0);
TRS	:	(	3500.0,	180.0,	0.0,	0.0);	TRS	:	(	4000.0,	180.0,	0.0,	0.0);
TRS	:	(	4500.0,	180.0,	0.0,	0.0);	TRS	:	(	5000.0,	180.0,	0.0,	0.0);
TRS	:	(	750.0,	190.0,	0.0,	0.0);	TRS	:	(	1100.0,	190.0,	0.0,	0.0);
TRS	:	(	1500.0,	190.0,	0.0,	0.0);	TRS	:	(	2000.0,	190.0,	0.0,	0.0);
TRS	:	(	2500.0,	190.0,	0.0,	0.0);	TRS	:	(	3000.0,	190.0,	0.0,	0.0);
TRS	:	(	3500.0,	190.0,	0.0,	0.0);	TRS	:	(	4000.0,	190.0,	0.0,	0.0);
TRS	:	(	4500.0,	190.0,	0.0,	0.0);	TRS	:	(	5000.0,	190.0,	0.0,	0.0);
TRS	:	(	1829.0,	200.0,	0.0,	0.0);	TRS	:	(	2000.0,	200.0,	0.0,	0.0);
TRS	:	(	2500.0,	200.0,	0.0,	0.0);	TRS	:	(	3000.0,	200.0,	0.0,	0.0);
TRS	:	(	3500.0,	200.0,	0.0,	0.0);	TRS	:	(	4000.0,	200.0,	0.0,	0.0);
TRS	:	(	4500.0,	200.0,	0.0,	0.0);	TRS	:	(	5000.0,	200.0,	0.0,	0.0);
TRS	:	(	1829.0,	210.0,	0.0,	0.0);	TRS	:	(	2000.0,	210.0,	0.0,	0.0);
TRS	:	(	2500.0,	210.0,	0.0,	0.0);	TRS	:	(	3000.0,	210.0,	0.0,	0.0);

MODELOPTs: CONC

RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***

ORIGIN: (DIST, DIR, ZELEV, ZFLAG)

SRCID: (METERS,DEG,METERS,METERS)

TRS	:	(	3500.0,	210.0,	0.0,	0.0);	TRS	:	(	4000.0,	210.0,	0.0,	0.0);
TRS	:	(	4500.0,	210.0,	0.0,	0.0);	TRS	:	(	5000.0,	210.0,	0.0,	0.0);
TRS	:	(	1981.0,	220.0,	0.0,	0.0);	TRS	:	(	2000.0,	220.0,	0.0,	0.0);
TRS	:	(	2500.0,	220.0,	0.0,	0.0);	TRS	:	(	3000.0,	220.0,	0.0,	0.0);
TRS	:	(	3500.0,	220.0,	0.0,	0.0);	TRS	:	(	4000.0,	220.0,	0.0,	0.0);
TRS	:	(	4500.0,	220.0,	0.0,	0.0);	TRS	:	(	5000.0,	220.0,	0.0,	0.0);
TRS	:	(	2134.0,	230.0,	0.0,	0.0);	TRS	:	(	2500.0,	230.0,	0.0,	0.0);
TRS	:	(	3000.0,	230.0,	0.0,	0.0);	TRS	:	(	3500.0,	230.0,	0.0,	0.0);
TRS	:	(	4000.0,	230.0,	0.0,	0.0);	TRS	:	(	4500.0,	230.0,	0.0,	0.0);
TRS	:	(	5000.0,	230.0,	0.0,	0.0);	TRS	:	(	2438.0,	240.0,	0.0,	0.0);
TRS	:	(	2500.0,	240.0,	0.0,	0.0);	TRS	:	(	3000.0,	240.0,	0.0,	0.0);
TRS	:	(	3500.0,	240.0,	0.0,	0.0);	TRS	:	(	4000.0,	240.0,	0.0,	0.0);
TRS	:	(	4500.0,	240.0,	0.0,	0.0);	TRS	:	(	5000.0,	240.0,	0.0,	0.0);
TRS	:	(	2896.0,	250.0,	0.0,	0.0);	TRS	:	(	3000.0,	250.0,	0.0,	0.0);
TRS	:	(	3500.0,	250.0,	0.0,	0.0);	TRS	:	(	4000.0,	250.0,	0.0,	0.0);
TRS	:	(	4500.0,	250.0,	0.0,	0.0);	TRS	:	(	5000.0,	250.0,	0.0,	0.0);
TRS	:	(	3048.0,	260.0,	0.0,	0.0);	TRS	:	(	3500.0,	260.0,	0.0,	0.0);
TRS	:	(	4000.0,	260.0,	0.0,	0.0);	TRS	:	(	4500.0,	260.0,	0.0,	0.0);
TRS	:	(	5000.0,	260.0,	0.0,	0.0);	TRS	:	(	3658.0,	270.0,	0.0,	0.0);
TRS	:	(	4000.0,	270.0,	0.0,	0.0);	TRS	:	(	4500.0,	270.0,	0.0,	0.0);
TRS	:	(	5000.0,	270.0,	0.0,	0.0);	TRS	:	(	3962.0,	280.0,	0.0,	0.0);
TRS	:	(	4000.0,	280.0,	0.0,	0.0);	TRS	:	(	4500.0,	280.0,	0.0,	0.0);
TRS	:	(	5000.0,	280.0,	0.0,	0.0);	TRS	:	(	4572.0,	290.0,	0.0,	0.0);
TRS	:	(	5000.0,	290.0,	0.0,	0.0);	TRS	:	(	5182.0,	300.0,	0.0,	0.0);
TRS	:	(	4801.0,	310.0,	0.0,	0.0);	TRS	:	(	5000.0,	310.0,	0.0,	0.0);
TRS	:	(	4875.0,	320.0,	0.0,	0.0);	TRS	:	(	5000.0,	320.0,	0.0,	0.0);
TRS	:	(	6000.0,	330.0,	0.0,	0.0);	TRS	:	(	5500.0,	340.0,	0.0,	0.0);
TRS	:	(	5250.0,	350.0,	0.0,	0.0);	TRS	:	(	5125.0,	360.0,	0.0,	0.0);

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: S:\MET\GNSPRL88.BIN

FORMAT: UNIFORM

SURFACE STATION NO.: 12816

UPPER AIR STATION NO.: 13861

NAME: JACKSONVILLE

NAME: WAYCROSS

YEAR: 1988

YEAR: 1988

YR	MN	DY	HR	FLOW	SPEED	TEMP	STAB	MIXING HEIGHT (M)		USTAR	M-O LENGTH	Z-O	IPCODE	PRATE
				VECTOR	(M/S)	(K)	CLASS	RURAL	URBAN	(M/S)	(M)	(M)	(mm/HR)	
88	1	1	1	321.0	3.09	285.9	6	989.1	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	2	278.0	2.57	284.8	6	1002.6	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	3	284.0	1.00	284.3	7	1016.1	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	4	283.0	1.00	282.6	7	1029.7	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	5	283.0	1.00	282.0	7	1043.2	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	6	282.0	1.00	281.5	7	1056.7	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	7	285.0	1.00	282.6	7	1070.3	128.0	0.0000	0.0	0.0000	0	0.00
88	1	1	8	283.0	1.00	282.6	6	92.8	210.6	0.0000	0.0	0.0000	0	0.00
88	1	1	9	277.0	1.00	285.4	5	271.5	369.6	0.0000	0.0	0.0000	0	0.00
88	1	1	10	341.0	3.09	288.7	4	450.2	528.7	0.0000	0.0	0.0000	0	0.00
88	1	1	11	344.0	2.57	292.0	3	628.9	687.8	0.0000	0.0	0.0000	0	0.00
88	1	1	12	316.0	5.14	294.3	3	807.6	846.9	0.0000	0.0	0.0000	0	0.00
88	1	1	13	343.0	3.60	294.8	2	986.3	1005.9	0.0000	0.0	0.0000	0	0.00
88	1	1	14	9.0	3.60	295.9	3	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	15	42.0	2.57	296.5	3	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	16	334.0	2.57	296.5	3	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	17	301.0	2.57	295.4	4	1165.0	1165.0	0.0000	0.0	0.0000	0	0.00
88	1	1	18	137.0	1.54	292.6	5	1143.9	1125.6	0.0000	0.0	0.0000	0	0.00
88	1	1	19	144.0	1.00	290.4	6	1090.5	1025.6	0.0000	0.0	0.0000	0	0.00
88	1	1	20	137.0	1.00	288.7	6	1037.1	925.7	0.0000	0.0	0.0000	0	0.00
88	1	1	21	140.0	1.00	287.6	7	983.7	825.8	0.0000	0.0	0.0000	0	0.00
88	1	1	22	142.0	1.00	286.5	7	930.3	725.9	0.0000	0.0	0.0000	0	0.00
88	1	1	23	140.0	1.00	286.5	7	876.9	625.9	0.0000	0.0	0.0000	0	0.00
88	1	1	24	140.0	1.00	285.9	7	823.6	526.0	0.0000	0.0	0.0000	0	0.00

NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	10.00	0.18133	TRS	4500.00	20.00	0.21179
TRS	5000.00	20.00	0.18103	TRS	2500.00	30.00	0.53117
TRS	3000.00	30.00	0.40722	TRS	3500.00	30.00	0.32539
TRS	4000.00	30.00	0.26786	TRS	4500.00	30.00	0.22554
TRS	5000.00	30.00	0.19333	TRS	2500.00	40.00	0.43700
TRS	3000.00	40.00	0.34016	TRS	3500.00	40.00	0.27499
TRS	4000.00	40.00	0.22848	TRS	4500.00	40.00	0.19393
TRS	5000.00	40.00	0.16742	TRS	1500.00	50.00	0.88285
TRS	2000.00	50.00	0.59045	TRS	2500.00	50.00	0.43202
TRS	3000.00	50.00	0.33473	TRS	3500.00	50.00	0.26961
TRS	4000.00	50.00	0.22348	TRS	4500.00	50.00	0.18937
TRS	5000.00	50.00	0.16325	TRS	1500.00	60.00	1.16861
TRS	2000.00	60.00	0.78445	TRS	2500.00	60.00	0.57563
TRS	3000.00	60.00	0.44718	TRS	3500.00	60.00	0.36101
TRS	4000.00	60.00	0.29984	TRS	4500.00	60.00	0.25450
TRS	5000.00	60.00	0.21972	TRS	1500.00	70.00	1.36742
TRS	2000.00	70.00	0.91859	TRS	2500.00	70.00	0.67720
TRS	3000.00	70.00	0.52893	TRS	3500.00	70.00	0.42933
TRS	4000.00	70.00	0.35839	TRS	4500.00	70.00	0.30561
TRS	5000.00	70.00	0.26493	TRS	838.00	80.00	4.36783
TRS	1100.00	80.00	3.19192	TRS	1500.00	80.00	2.01201
TRS	2000.00	80.00	1.27365	TRS	2500.00	80.00	0.90165
TRS	3000.00	80.00	0.68568	TRS	3500.00	80.00	0.54678
TRS	4000.00	80.00	0.45059	TRS	4500.00	80.00	0.38034
TRS	5000.00	80.00	0.32703	TRS	686.00	90.00	4.58953
TRS	1100.00	90.00	2.77523	TRS	1500.00	90.00	1.97236
TRS	2000.00	90.00	1.36939	TRS	2500.00	90.00	1.02059
TRS	3000.00	90.00	0.80377	TRS	3500.00	90.00	0.65830
TRS	4000.00	90.00	0.55432	TRS	4500.00	90.00	0.47640
TRS	5000.00	90.00	0.41597	TRS	533.00	100.00	7.78206
TRS	700.00	100.00	5.15738	TRS	1100.00	100.00	2.92672
TRS	1500.00	100.00	1.89655	TRS	2000.00	100.00	1.23098
TRS	2500.00	100.00	0.88865	TRS	3000.00	100.00	0.68880
TRS	3500.00	100.00	0.55953	TRS	4000.00	100.00	0.46911
TRS	4500.00	100.00	0.40228	TRS	5000.00	100.00	0.35089
TRS	457.00	110.00	7.49086	TRS	700.00	110.00	6.29031
TRS	1100.00	110.00	3.73617	TRS	1500.00	110.00	2.44067
TRS	2000.00	110.00	1.57583	TRS	2500.00	110.00	1.12916
TRS	3000.00	110.00	0.86509	TRS	3500.00	110.00	0.69402
TRS	4000.00	110.00	0.57557	TRS	4500.00	110.00	0.48931

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	5000.00	110.00	0.42397	TRS	457.00	120.00	5.45361
TRS	700.00	120.00	4.77225	TRS	1100.00	120.00	3.89660
TRS	1500.00	120.00	2.90447	TRS	2000.00	120.00	2.08812
TRS	2500.00	120.00	1.58123	TRS	3000.00	120.00	1.25195
TRS	3500.00	120.00	1.02678	TRS	4000.00	120.00	0.86518
TRS	4500.00	120.00	0.74431	TRS	5000.00	120.00	0.65085
TRS	457.00	130.00	5.01939	TRS	700.00	130.00	3.62041
TRS	1100.00	130.00	2.72208	TRS	1500.00	130.00	2.04595
TRS	2000.00	130.00	1.50645	TRS	2500.00	130.00	1.21056
TRS	3000.00	130.00	1.01569	TRS	3500.00	130.00	0.87222
TRS	4000.00	130.00	0.76074	TRS	4500.00	130.00	0.67152
TRS	5000.00	130.00	0.59867	TRS	457.00	140.00	4.94568
TRS	700.00	140.00	3.53134	TRS	1100.00	140.00	2.25755
TRS	1500.00	140.00	1.59437	TRS	2000.00	140.00	1.13638
TRS	2500.00	140.00	0.87451	TRS	3000.00	140.00	0.70666
TRS	3500.00	140.00	0.59037	TRS	4000.00	140.00	0.50525
TRS	4500.00	140.00	0.44029	TRS	5000.00	140.00	0.38912
TRS	457.00	150.00	4.87878	TRS	700.00	150.00	3.54443
TRS	1100.00	150.00	2.34785	TRS	1500.00	150.00	1.74029
TRS	2000.00	150.00	1.22171	TRS	2500.00	150.00	0.89823
TRS	3000.00	150.00	0.69658	TRS	3500.00	150.00	0.56351
TRS	4000.00	150.00	0.47039	TRS	4500.00	150.00	0.40196
TRS	5000.00	150.00	0.34969	TRS	488.00	160.00	4.35135
TRS	700.00	160.00	3.38694	TRS	1100.00	160.00	2.35660
TRS	1500.00	160.00	1.74982	TRS	2000.00	160.00	1.28069
TRS	2500.00	160.00	0.98768	TRS	3000.00	160.00	0.79395
TRS	3500.00	160.00	0.65811	TRS	4000.00	160.00	0.55826
TRS	4500.00	160.00	0.48206	TRS	5000.00	160.00	0.42222
TRS	533.00	170.00	3.81883	TRS	700.00	170.00	3.14908
TRS	1100.00	170.00	2.12426	TRS	1500.00	170.00	1.57460
TRS	2000.00	170.00	1.16585	TRS	2500.00	170.00	0.90890
TRS	3000.00	170.00	0.73703	TRS	3500.00	170.00	0.61541
TRS	4000.00	170.00	0.52541	TRS	4500.00	170.00	0.45639
TRS	5000.00	170.00	0.40193	TRS	610.00	180.00	2.99951
TRS	700.00	180.00	2.81052	TRS	1100.00	180.00	2.02377
TRS	1500.00	180.00	1.49178	TRS	2000.00	180.00	1.09274
TRS	2500.00	180.00	0.84578	TRS	3000.00	180.00	0.68131
TRS	3500.00	180.00	0.56481	TRS	4000.00	180.00	0.47864
TRS	4500.00	180.00	0.41273	TRS	5000.00	180.00	0.36095
TRS	750.00	190.00	2.26801	TRS	1100.00	190.00	1.58259

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE PERIOD (8784 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN			
SRCID	DIST (M)	DIR (DEG)	CONC	SRCID	DIST (M)	DIR (DEG)	CONC
TRS	1500.00	190.00	1.14373	TRS	2000.00	190.00	0.82645
TRS	2500.00	190.00	0.63382	TRS	3000.00	190.00	0.50753
TRS	3500.00	190.00	0.41900	TRS	4000.00	190.00	0.35400
TRS	4500.00	190.00	0.30456	TRS	5000.00	190.00	0.26588
TRS	1829.00	200.00	1.00310	TRS	2000.00	200.00	0.90098
TRS	2500.00	200.00	0.68492	TRS	3000.00	200.00	0.54544
TRS	3500.00	200.00	0.44862	TRS	4000.00	200.00	0.37804
TRS	4500.00	200.00	0.32462	TRS	5000.00	200.00	0.28300
TRS	1829.00	210.00	1.23629	TRS	2000.00	210.00	1.12075
TRS	2500.00	210.00	0.86909	TRS	3000.00	210.00	0.70107
TRS	3500.00	210.00	0.58176	TRS	4000.00	210.00	0.49334
TRS	4500.00	210.00	0.42559	TRS	5000.00	210.00	0.37229
TRS	1981.00	220.00	0.73795	TRS	2000.00	220.00	0.73067
TRS	2500.00	220.00	0.57646	TRS	3000.00	220.00	0.47202
TRS	3500.00	220.00	0.39671	TRS	4000.00	220.00	0.34036
TRS	4500.00	220.00	0.29679	TRS	5000.00	220.00	0.26217
TRS	2134.00	230.00	0.64327	TRS	2500.00	230.00	0.54231
TRS	3000.00	230.00	0.44284	TRS	3500.00	230.00	0.37137
TRS	4000.00	230.00	0.31794	TRS	4500.00	230.00	0.27660
TRS	5000.00	230.00	0.24379	TRS	2438.00	240.00	0.57114
TRS	2500.00	240.00	0.55611	TRS	3000.00	240.00	0.45633
TRS	3500.00	240.00	0.38424	TRS	4000.00	240.00	0.33010
TRS	4500.00	240.00	0.28806	TRS	5000.00	240.00	0.25457
TRS	2896.00	250.00	0.53757	TRS	3000.00	250.00	0.51642
TRS	3500.00	250.00	0.43243	TRS	4000.00	250.00	0.36986
TRS	4500.00	250.00	0.32152	TRS	5000.00	250.00	0.28327
TRS	3048.00	260.00	0.81198	TRS	3500.00	260.00	0.70012
TRS	4000.00	260.00	0.60262	TRS	4500.00	260.00	0.52541
TRS	5000.00	260.00	0.46322	TRS	3658.00	270.00	0.91470
TRS	4000.00	270.00	0.82348	TRS	4500.00	270.00	0.71437
TRS	5000.00	270.00	0.62711	TRS	3962.00	280.00	0.87968
TRS	4000.00	280.00	0.86859	TRS	4500.00	280.00	0.74202
TRS	5000.00	280.00	0.64378	TRS	4572.00	290.00	0.74263
TRS	5000.00	290.00	0.65865	TRS	5182.00	300.00	0.64089
TRS	4801.00	310.00	0.55671	TRS	5000.00	310.00	0.52452
TRS	4875.00	320.00	0.37674	TRS	5000.00	320.00	0.36303
TRS	6000.00	330.00	0.22879	TRS	5500.00	340.00	0.17628
TRS	5250.00	350.00	0.22052	TRS	5125.00	360.00	0.26809

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	10.00	3.35755c (88082224)	TRS	4500.00	20.00	3.53883c (88072324)				
TRS	5000.00	20.00	3.12569c (88072324)	TRS	2500.00	30.00	8.73051c (88041924)				
TRS	3000.00	30.00	6.81210c (88041924)	TRS	3500.00	30.00	5.50863c (88041924)				
TRS	4000.00	30.00	4.57152c (88041924)	TRS	4500.00	30.00	3.87088c (88041924)				
TRS	5000.00	30.00	3.33120c (88041924)	TRS	2500.00	40.00	5.60896c (88052424)				
TRS	3000.00	40.00	4.73392c (88052424)	TRS	3500.00	40.00	4.06760c (88052424)				
TRS	4000.00	40.00	3.54279c (88052424)	TRS	4500.00	40.00	3.12517c (88052424)				
TRS	5000.00	40.00	2.78517c (88052424)	TRS	1500.00	50.00	15.15576c (88052324)				
TRS	2000.00	50.00	11.10819c (88052324)	TRS	2500.00	50.00	8.61640c (88052324)				
TRS	3000.00	50.00	6.95694c (88052324)	TRS	3500.00	50.00	5.77437c (88052324)				
TRS	4000.00	50.00	4.89887c (88052324)	TRS	4500.00	50.00	4.22835c (88052324)				
TRS	5000.00	50.00	3.70051c (88052324)	TRS	1500.00	60.00	17.56818c (88041524)				
TRS	2000.00	60.00	13.10256c (88041524)	TRS	2500.00	60.00	10.09396c (88041524)				
TRS	3000.00	60.00	8.03887c (88041524)	TRS	3500.00	60.00	6.57568c (88041524)				
TRS	4000.00	60.00	5.50008c (88041524)	TRS	4500.00	60.00	4.68427c (88041524)				
TRS	5000.00	60.00	4.04755c (88041524)	TRS	1500.00	70.00	12.35472c (88051824)				
TRS	2000.00	70.00	10.84668c (88051824)	TRS	2500.00	70.00	9.07934c (88051824)				
TRS	3000.00	70.00	7.60538c (88051824)	TRS	3500.00	70.00	6.43688c (88051824)				
TRS	4000.00	70.00	5.51506c (88051824)	TRS	4500.00	70.00	4.78102c (88051824)				
TRS	5000.00	70.00	4.18892c (88051824)	TRS	838.00	80.00	49.18334c (88022924)				
TRS	1100.00	80.00	32.72994c (88051124)	TRS	1500.00	80.00	20.99119c (88051124)				
TRS	2000.00	80.00	13.20530c (88051124)	TRS	2500.00	80.00	9.44728 (88042524)				
TRS	3000.00	80.00	7.21788 (88042524)	TRS	3500.00	80.00	5.72330 (88042524)				
TRS	4000.00	80.00	4.66543 (88042524)	TRS	4500.00	80.00	3.94922c (88051124)				
TRS	5000.00	80.00	3.41394c (88051124)	TRS	686.00	90.00	33.73722c (88070124)				
TRS	1100.00	90.00	26.62829c (88040724)	TRS	1500.00	90.00	17.99898c (88070124)				
TRS	2000.00	90.00	15.34026c (88070124)	TRS	2500.00	90.00	12.76382c (88051124)				
TRS	3000.00	90.00	10.51498c (88051124)	TRS	3500.00	90.00	8.64067c (88051124)				
TRS	4000.00	90.00	7.18858c (88051124)	TRS	4500.00	90.00	6.07063c (88051124)				
TRS	5000.00	90.00	5.20041c (88051124)	TRS	533.00	100.00	106.51340 (88121724)				
TRS	700.00	100.00	41.70056c (88051824)	TRS	1100.00	100.00	26.79212c (88110624)				
TRS	1500.00	100.00	18.63279c (88070124)	TRS	2000.00	100.00	12.39858c (88020424)				
TRS	2500.00	100.00	9.76033c (88020424)	TRS	3000.00	100.00	7.51376c (88020424)				
TRS	3500.00	100.00	6.08882c (88041224)	TRS	4000.00	100.00	5.21580c (88041224)				
TRS	4500.00	100.00	4.56086c (88041224)	TRS	5000.00	100.00	4.04512c (88041224)				
TRS	457.00	110.00	90.18466 (88112324)	TRS	700.00	110.00	58.51094 (88112324)				
TRS	1100.00	110.00	57.70446 (88121724)	TRS	1500.00	110.00	39.09196 (88121724)				
TRS	2000.00	110.00	18.26997 (88121724)	TRS	2500.00	110.00	11.79657c (88122424)				
TRS	3000.00	110.00	9.26919c (88122424)	TRS	3500.00	110.00	7.52245c (88122424)				
TRS	4000.00	110.00	6.30507c (88122424)	TRS	4500.00	110.00	5.43005c (88122424)				

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN					
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)		
TRS	5000.00	110.00	4.77754c (88122424)	TRS	457.00	120.00	41.48445c (88012224)		
TRS	700.00	120.00	56.03448 (88112324)	TRS	1100.00	120.00	53.44291 (88112324)		
TRS	1500.00	120.00	34.87188 (88112324)	TRS	2000.00	120.00	21.61072c (88121324)		
TRS	2500.00	120.00	18.30805 (88121724)	TRS	3000.00	120.00	16.09649 (88121724)		
TRS	3500.00	120.00	13.90037 (88121724)	TRS	4000.00	120.00	12.07284 (88121724)		
TRS	4500.00	120.00	10.61040 (88121724)	TRS	5000.00	120.00	9.43995 (88121724)		
TRS	457.00	130.00	54.28892c (88010424)	TRS	700.00	130.00	27.87399c (88101024)		
TRS	1100.00	130.00	24.72904c (88012224)	TRS	1500.00	130.00	19.58625 (88112324)		
TRS	2000.00	130.00	16.98697 (88112324)	TRS	2500.00	130.00	16.08634c (88120224)		
TRS	3000.00	130.00	15.53427c (88120224)	TRS	3500.00	130.00	14.05951c (88120224)		
TRS	4000.00	130.00	12.39442c (88120224)	TRS	4500.00	130.00	10.84135c (88120224)		
TRS	5000.00	130.00	9.49028c (88120224)	TRS	457.00	140.00	44.84327 (88100924)		
TRS	700.00	140.00	36.71844c (88010424)	TRS	1100.00	140.00	27.45982c (88010424)		
TRS	1500.00	140.00	17.28664c (88010424)	TRS	2000.00	140.00	11.38620c (88122524)		
TRS	2500.00	140.00	9.07104c (88121024)	TRS	3000.00	140.00	7.47358c (88121024)		
TRS	3500.00	140.00	6.03770c (88121024)	TRS	4000.00	140.00	5.70178c (88012224)		
TRS	4500.00	140.00	5.37771c (88012224)	TRS	5000.00	140.00	5.03143c (88012224)		
TRS	457.00	150.00	43.31295 (88100724)	TRS	700.00	150.00	38.48525c (88010824)		
TRS	1100.00	150.00	24.63835 (88012724)	TRS	1500.00	150.00	19.25994c (88012824)		
TRS	2000.00	150.00	12.91629c (88022124)	TRS	2500.00	150.00	11.01473c (88022124)		
TRS	3000.00	150.00	9.30002c (88022124)	TRS	3500.00	150.00	7.87602c (88022124)		
TRS	4000.00	150.00	6.72578c (88022124)	TRS	4500.00	150.00	5.79975c (88022124)		
TRS	5000.00	150.00	5.05007c (88022124)	TRS	488.00	160.00	50.29927 (88100924)		
TRS	700.00	160.00	30.08555 (88020824)	TRS	1100.00	160.00	21.57224 (88100724)		
TRS	1500.00	160.00	16.77335c (88010824)	TRS	2000.00	160.00	12.92736c (88010824)		
TRS	2500.00	160.00	10.18239c (88010824)	TRS	3000.00	160.00	8.23383c (88010824)		
TRS	3500.00	160.00	6.80579c (88010824)	TRS	4000.00	160.00	5.72894c (88010824)		
TRS	4500.00	160.00	4.89811c (88010824)	TRS	5000.00	160.00	4.24383c (88010824)		
TRS	533.00	170.00	42.74447 (88020524)	TRS	700.00	170.00	39.34484 (88020624)		
TRS	1100.00	170.00	27.75861 (88100724)	TRS	1500.00	170.00	21.21471 (88100924)		
TRS	2000.00	170.00	14.75176 (88100924)	TRS	2500.00	170.00	10.97140c (88012824)		
TRS	3000.00	170.00	8.84539c (88012824)	TRS	3500.00	170.00	7.24738c (88012824)		
TRS	4000.00	170.00	6.03786c (88012824)	TRS	4500.00	170.00	5.10843c (88012824)		
TRS	5000.00	170.00	4.38177c (88012824)	TRS	610.00	180.00	35.78253 (88020624)		
TRS	700.00	180.00	32.11079 (88020624)	TRS	1100.00	180.00	21.25409 (88020524)		
TRS	1500.00	180.00	17.20235 (88020524)	TRS	2000.00	180.00	13.40344c (88030624)		
TRS	2500.00	180.00	10.57142c (88030624)	TRS	3000.00	180.00	8.54497c (88030624)		
TRS	3500.00	180.00	7.06034c (88030624)	TRS	4000.00	180.00	5.94490c (88030624)		
TRS	4500.00	180.00	5.08614c (88030624)	TRS	5000.00	180.00	4.41068c (88030624)		
TRS	750.00	190.00	50.83327 (88011024)	TRS	1100.00	190.00	35.40842 (88011024)		

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	24.83971	(88011024)	TRS	2000.00	190.00	17.20034	(88011024)
TRS	2500.00	190.00	12.67355	(88011024)	TRS	3000.00	190.00	9.80360	(88011024)
TRS	3500.00	190.00	7.85153	(88011024)	TRS	4000.00	190.00	6.45621	(88011024)
TRS	4500.00	190.00	5.42099	(88011024)	TRS	5000.00	190.00	4.78914	(88020624)
TRS	1829.00	200.00	19.65458	(88011024)	TRS	2000.00	200.00	17.91180	(88011024)
TRS	2500.00	200.00	13.96575	(88011024)	TRS	3000.00	200.00	11.25464	(88011024)
TRS	3500.00	200.00	9.29435	(88011024)	TRS	4000.00	200.00	7.82745	(88011024)
TRS	4500.00	200.00	6.69924	(88011024)	TRS	5000.00	200.00	5.81129	(88011024)
TRS	1829.00	210.00	12.93031	(88011024)	TRS	2000.00	210.00	11.63223	(88011024)
TRS	2500.00	210.00	8.80938	(88011024)	TRS	3000.00	210.00	6.95342	(88011024)
TRS	3500.00	210.00	5.99206	(88011524)	TRS	4000.00	210.00	5.31938	(88011524)
TRS	4500.00	210.00	4.77318	(88011524)	TRS	5000.00	210.00	4.32105	(88011524)
TRS	1981.00	220.00	10.37937c	(88050124)	TRS	2000.00	220.00	10.27851c	(88050124)
TRS	2500.00	220.00	8.09415c	(88050124)	TRS	3000.00	220.00	6.57597c	(88050124)
TRS	3500.00	220.00	5.46901c	(88050124)	TRS	4000.00	220.00	4.63417c	(88050124)
TRS	4500.00	220.00	3.98730c	(88050124)	TRS	5000.00	220.00	3.47473c	(88050124)
TRS	2134.00	230.00	10.38393	(88010324)	TRS	2500.00	230.00	8.88763	(88010324)
TRS	3000.00	230.00	7.33954	(88010324)	TRS	3500.00	230.00	6.18239	(88010324)
TRS	4000.00	230.00	5.29392	(88010324)	TRS	4500.00	230.00	4.59578	(88010324)
TRS	5000.00	230.00	4.03625	(88010324)	TRS	2438.00	240.00	6.98574	(88090724)
TRS	2500.00	240.00	6.79989	(88090724)	TRS	3000.00	240.00	5.55324	(88090724)
TRS	3500.00	240.00	4.63831	(88090724)	TRS	4000.00	240.00	3.94485	(88090724)
TRS	4500.00	240.00	3.41665c	(88010224)	TRS	5000.00	240.00	3.05212c	(88010224)
TRS	2896.00	250.00	5.69475c	(88050124)	TRS	3000.00	250.00	5.41528c	(88050124)
TRS	3500.00	250.00	4.37215	(88093024)	TRS	4000.00	250.00	3.88271	(88093024)
TRS	4500.00	250.00	3.48568	(88093024)	TRS	5000.00	250.00	3.17094c	(88013024)
TRS	3048.00	260.00	8.60662c	(88080924)	TRS	3500.00	260.00	7.48113c	(88080924)
TRS	4000.00	260.00	6.41505c	(88080924)	TRS	4500.00	260.00	5.53638c	(88080924)
TRS	5000.00	260.00	4.81714c	(88080924)	TRS	3658.00	270.00	9.56194	(88091124)
TRS	4000.00	270.00	9.00360	(88091124)	TRS	4500.00	270.00	8.26528	(88091124)
TRS	5000.00	270.00	7.60809	(88091124)	TRS	3962.00	280.00	10.74918	(88091624)
TRS	4000.00	280.00	10.63345	(88091624)	TRS	4500.00	280.00	9.60482c	(88091724)
TRS	5000.00	280.00	8.70526c	(88091724)	TRS	4572.00	290.00	7.30424c	(88091524)
TRS	5000.00	290.00	6.50957c	(88091524)	TRS	5182.00	300.00	9.05118c	(88123024)
TRS	4801.00	310.00	7.66859c	(88112624)	TRS	5000.00	310.00	7.39640c	(88112624)
TRS	4875.00	320.00	4.09472c	(88061724)	TRS	5000.00	320.00	4.06979c	(88061724)
TRS	6000.00	330.00	5.13105c	(88011724)	TRS	5500.00	340.00	2.75541c	(88072224)
TRS	5250.00	350.00	4.92646c	(88072224)	TRS	5125.00	360.00	6.03582c	(88072324)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	10.00	8.76566c (88082208)	TRS	4500.00	20.00	9.57257c (88072308)				
TRS	5000.00	20.00	8.46632c (88072308)	TRS	2500.00	30.00	22.91758 (88041908)				
TRS	3000.00	30.00	17.88175 (88041908)	TRS	3500.00	30.00	14.46015 (88041908)				
TRS	4000.00	30.00	12.00023 (88041908)	TRS	4500.00	30.00	10.16107 (88041908)				
TRS	5000.00	30.00	8.74439 (88041908)	TRS	2500.00	40.00	14.85237 (88031008)				
TRS	3000.00	40.00	11.90804 (88031008)	TRS	3500.00	40.00	9.81594 (88031008)				
TRS	4000.00	40.00	8.26422 (88031008)	TRS	4500.00	40.00	7.07759 (88031008)				
TRS	5000.00	40.00	6.14715 (88031008)	TRS	1500.00	50.00	30.36922 (88052324)				
TRS	2000.00	50.00	22.65656 (88052324)	TRS	2500.00	50.00	17.77137 (88052324)				
TRS	3000.00	50.00	14.46336 (88052324)	TRS	3500.00	50.00	12.07644 (88052324)				
TRS	4000.00	50.00	10.29432 (88052324)	TRS	4500.00	50.00	8.92037 (88052324)				
TRS	5000.00	50.00	7.83286 (88052324)	TRS	1500.00	60.00	58.12214c (88041508)				
TRS	2000.00	60.00	44.66973c (88041508)	TRS	2500.00	60.00	34.78650c (88041508)				
TRS	3000.00	60.00	27.84504c (88041508)	TRS	3500.00	60.00	22.84098c (88041508)				
TRS	4000.00	60.00	19.13811c (88041508)	TRS	4500.00	60.00	16.31841c (88041508)				
TRS	5000.00	60.00	14.11195c (88041508)	TRS	1500.00	70.00	22.89122 (88060824)				
TRS	2000.00	70.00	16.98473 (88063016)	TRS	2500.00	70.00	13.11984 (88063016)				
TRS	3000.00	70.00	10.60179 (88051824)	TRS	3500.00	70.00	8.96038 (88051824)				
TRS	4000.00	70.00	8.10150 (88061008)	TRS	4500.00	70.00	7.48721 (88061008)				
TRS	5000.00	70.00	6.93070 (88061008)	TRS	838.00	80.00	83.07162 (88022924)				
TRS	1100.00	80.00	57.48623c (88041608)	TRS	1500.00	80.00	41.40105 (88012624)				
TRS	2000.00	80.00	25.10825 (88060324)	TRS	2500.00	80.00	18.48288 (88060324)				
TRS	3000.00	80.00	13.91782 (88060324)	TRS	3500.00	80.00	11.33040 (88050508)				
TRS	4000.00	80.00	9.98678 (88050508)	TRS	4500.00	80.00	8.91811 (88050508)				
TRS	5000.00	80.00	8.04174 (88050508)	TRS	686.00	90.00	58.79133 (88082516)				
TRS	1100.00	90.00	61.48000c (88060308)	TRS	1500.00	90.00	33.98751c (88070108)				
TRS	2000.00	90.00	31.08188c (88070108)	TRS	2500.00	90.00	25.23502c (88070108)				
TRS	3000.00	90.00	20.20624c (88070108)	TRS	3500.00	90.00	16.97675c (88041924)				
TRS	4000.00	90.00	14.91131c (88041924)	TRS	4500.00	90.00	13.05874c (88041924)				
TRS	5000.00	90.00	11.46535c (88041924)	TRS	533.00	100.00	128.76370c (88121808)				
TRS	700.00	100.00	95.74863c (88122424)	TRS	1100.00	100.00	42.55221 (88030108)				
TRS	1500.00	100.00	30.38157 (88041224)	TRS	2000.00	100.00	26.33537 (88041224)				
TRS	2500.00	100.00	20.27091 (88041224)	TRS	3000.00	100.00	18.57104 (88032124)				
TRS	3500.00	100.00	16.38410 (88032124)	TRS	4000.00	100.00	14.17167 (88032124)				
TRS	4500.00	100.00	12.21719 (88032124)	TRS	5000.00	100.00	10.57072 (88032124)				
TRS	457.00	110.00	150.50316 (88112324)	TRS	700.00	110.00	93.54645 (88112816)				
TRS	1100.00	110.00	74.86841c (88121808)	TRS	1500.00	110.00	53.77053 (88112824)				
TRS	2000.00	110.00	42.38626c (88122424)	TRS	2500.00	110.00	32.77450c (88122424)				
TRS	3000.00	110.00	24.57537c (88122424)	TRS	3500.00	110.00	20.86483c (88123124)				
TRS	4000.00	110.00	17.67579c (88123124)	TRS	4500.00	110.00	14.98332c (88123124)				

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	110.00	12.80020c (88123124)	TRS	457.00	120.00	95.55264c (88051408)				
TRS	700.00	120.00	98.39056 (88112324)	TRS	1100.00	120.00	87.87563 (88112324)				
TRS	1500.00	120.00	54.50053 (88022108)	TRS	2000.00	120.00	35.11155c (88121624)				
TRS	2500.00	120.00	29.37528c (88121624)	TRS	3000.00	120.00	30.28928c (88040808)				
TRS	3500.00	120.00	27.87137c (88040808)	TRS	4000.00	120.00	24.40796c (88040808)				
TRS	4500.00	120.00	20.97645c (88040808)	TRS	5000.00	120.00	17.93957c (88040808)				
TRS	457.00	130.00	80.52679 (88101008)	TRS	700.00	130.00	69.40108c (88122524)				
TRS	1100.00	130.00	50.04646c (88051408)	TRS	1500.00	130.00	33.00686 (88112324)				
TRS	2000.00	130.00	31.49826 (88112324)	TRS	2500.00	130.00	26.82193 (88112324)				
TRS	3000.00	130.00	23.66320 (88120208)	TRS	3500.00	130.00	22.02855 (88120208)				
TRS	4000.00	130.00	19.85145 (88120208)	TRS	4500.00	130.00	17.68926 (88120208)				
TRS	5000.00	130.00	15.73871 (88120208)	TRS	457.00	140.00	98.39699 (88010824)				
TRS	700.00	140.00	66.58317 (88021108)	TRS	1100.00	140.00	51.10278c (88030124)				
TRS	1500.00	140.00	31.15513c (88030124)	TRS	2000.00	140.00	34.15770c (88122524)				
TRS	2500.00	140.00	26.50199c (88122524)	TRS	3000.00	140.00	19.06868c (88122524)				
TRS	3500.00	140.00	13.95708c (88051408)	TRS	4000.00	140.00	12.40190c (88091808)				
TRS	4500.00	140.00	11.66209c (88091808)	TRS	5000.00	140.00	10.77263c (88091808)				
TRS	457.00	150.00	89.56011c (88010424)	TRS	700.00	150.00	77.92577 (88010824)				
TRS	1100.00	150.00	50.15537 (88010824)	TRS	1500.00	150.00	37.15162 (88012808)				
TRS	2000.00	150.00	24.48286 (88021108)	TRS	2500.00	150.00	18.66381 (88021108)				
TRS	3000.00	150.00	14.73461c (88101924)	TRS	3500.00	150.00	13.13142c (88101708)				
TRS	4000.00	150.00	12.63491c (88101708)	TRS	4500.00	150.00	11.92838c (88101708)				
TRS	5000.00	150.00	11.15104c (88101708)	TRS	488.00	160.00	83.35080 (88101308)				
TRS	700.00	160.00	64.37783 (88100908)	TRS	1100.00	160.00	49.45474c (88010424)				
TRS	1500.00	160.00	43.02466 (88101224)	TRS	2000.00	160.00	36.03642 (88101224)				
TRS	2500.00	160.00	27.39612 (88101224)	TRS	3000.00	160.00	21.05596 (88101224)				
TRS	3500.00	160.00	16.90807 (88102208)	TRS	4000.00	160.00	14.37358 (88102208)				
TRS	4500.00	160.00	12.29351 (88102208)	TRS	5000.00	160.00	11.50845c (88102308)				
TRS	533.00	170.00	81.97771c (88030616)	TRS	700.00	170.00	60.79946 (88010816)				
TRS	1100.00	170.00	57.89624c (88092808)	TRS	1500.00	170.00	37.54571 (88101308)				
TRS	2000.00	170.00	30.17119 (88101308)	TRS	2500.00	170.00	24.23764 (88101308)				
TRS	3000.00	170.00	19.78363 (88101308)	TRS	3500.00	170.00	16.46885 (88101308)				
TRS	4000.00	170.00	13.95801 (88101308)	TRS	4500.00	170.00	12.01321 (88101308)				
TRS	5000.00	170.00	10.48504c (88111324)	TRS	610.00	180.00	67.60345c (88040524)				
TRS	700.00	180.00	68.65850c (88011208)	TRS	1100.00	180.00	47.34153c (88030616)				
TRS	1500.00	180.00	37.45667c (88030616)	TRS	2000.00	180.00	27.42341c (88030616)				
TRS	2500.00	180.00	20.63529c (88030616)	TRS	3000.00	180.00	16.10159c (88030616)				
TRS	3500.00	180.00	13.78727c (88082308)	TRS	4000.00	180.00	12.13785c (88082308)				
TRS	4500.00	180.00	10.70540c (88082308)	TRS	5000.00	180.00	9.48605c (88082308)				
TRS	750.00	190.00	66.80137 (88011008)	TRS	1100.00	190.00	46.75502 (88011008)				

MODELOPTs: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCRB, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	: 1500.00	190.00	32.57467	(88011008)	TRS	: 2000.00	190.00	26.26183	(88020624)
TRS	: 2500.00	190.00	22.38454	(88020624)	TRS	: 3000.00	190.00	19.23497	(88020624)
TRS	: 3500.00	190.00	16.72609	(88020624)	TRS	: 4000.00	190.00	14.70986	(88020624)
TRS	: 4500.00	190.00	13.06859	(88020624)	TRS	: 5000.00	190.00	11.71422	(88020624)
TRS	: 1829.00	200.00	26.97464	(88010908)	TRS	: 2000.00	200.00	23.53932	(88010908)
TRS	: 2500.00	200.00	18.34057	(88101424)	TRS	: 3000.00	200.00	16.16086	(88101424)
TRS	: 3500.00	200.00	14.35200	(88101424)	TRS	: 4000.00	200.00	12.84794	(88101424)
TRS	: 4500.00	200.00	11.58728	(88101424)	TRS	: 5000.00	200.00	10.52097	(88101424)
TRS	: 1829.00	210.00	24.38062	(88050108)	TRS	: 2000.00	210.00	21.97599	(88050108)
TRS	: 2500.00	210.00	17.87992c	(88061208)	TRS	: 3000.00	210.00	15.95236c	(88061208)
TRS	: 3500.00	210.00	14.35719c	(88061208)	TRS	: 4000.00	210.00	13.02070c	(88061208)
TRS	: 4500.00	210.00	11.88748c	(88061208)	TRS	: 5000.00	210.00	10.91622c	(88061208)
TRS	: 1981.00	220.00	14.68311	(88061308)	TRS	: 2000.00	220.00	14.57161	(88061308)
TRS	: 2500.00	220.00	12.13292	(88061308)	TRS	: 3000.00	220.00	10.37636	(88061308)
TRS	: 3500.00	220.00	9.04600	(88061308)	TRS	: 4000.00	220.00	8.01691	(88061308)
TRS	: 4500.00	220.00	7.19653	(88061308)	TRS	: 5000.00	220.00	6.52618	(88061308)
TRS	: 2134.00	230.00	16.65408	(88122908)	TRS	: 2500.00	230.00	14.14171	(88122908)
TRS	: 3000.00	230.00	11.56929	(88061108)	TRS	: 3500.00	230.00	9.69864	(88061108)
TRS	: 4000.00	230.00	8.26744	(88061108)	TRS	: 4500.00	230.00	7.14655	(88061108)
TRS	: 5000.00	230.00	6.47274	(88091308)	TRS	: 2438.00	240.00	11.20802c	(88111408)
TRS	: 2500.00	240.00	11.01384c	(88111408)	TRS	: 3000.00	240.00	9.59547c	(88111408)
TRS	: 3500.00	240.00	8.44116c	(88111408)	TRS	: 4000.00	240.00	7.50821c	(88111408)
TRS	: 4500.00	240.00	6.74553c	(88111408)	TRS	: 5000.00	240.00	6.11382c	(88111408)
TRS	: 2896.00	250.00	11.43958	(88111808)	TRS	: 3000.00	250.00	11.02446	(88111808)
TRS	: 3500.00	250.00	9.33018	(88111808)	TRS	: 4000.00	250.00	8.02377	(88111808)
TRS	: 4500.00	250.00	7.17415	(88060508)	TRS	: 5000.00	250.00	6.48979	(88060508)
TRS	: 3048.00	260.00	24.60401c	(88011224)	TRS	: 3500.00	260.00	20.40911c	(88011224)
TRS	: 4000.00	260.00	16.93694c	(88011224)	TRS	: 4500.00	260.00	14.31931c	(88011224)
TRS	: 5000.00	260.00	12.54102c	(88101624)	TRS	: 3658.00	270.00	22.67554c	(88080308)
TRS	: 4000.00	270.00	20.79851c	(88080308)	TRS	: 4500.00	270.00	18.30760c	(88080308)
TRS	: 5000.00	270.00	16.16068c	(88080308)	TRS	: 3962.00	280.00	17.99938	(88091624)
TRS	: 4000.00	280.00	17.72033	(88091624)	TRS	: 4500.00	280.00	14.62163c	(88091708)
TRS	: 5000.00	280.00	13.91596c	(88091708)	TRS	: 4572.00	290.00	13.64830c	(88102924)
TRS	: 5000.00	290.00	13.06644c	(88102924)	TRS	: 5182.00	300.00	12.77982	(88123008)
TRS	: 4801.00	310.00	15.72265	(88112008)	TRS	: 5000.00	310.00	15.13028	(88112008)
TRS	: 4875.00	320.00	11.66933c	(88061724)	TRS	: 5000.00	320.00	11.61688c	(88061724)
TRS	: 6000.00	330.00	15.38457c	(88011724)	TRS	: 5500.00	340.00	6.88853	(88072224)
TRS	: 5250.00	350.00	11.56674c	(88072408)	TRS	: 5125.00	360.00	13.26101c	(88072324)

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN				ORIGIN							
SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
TRS	5000.00	10.00	17.53133c (88082203)	TRS	4500.00	20.00	14.73315c (88072306)				
TRS	5000.00	20.00	13.21761c (88072306)	TRS	2500.00	30.00	30.61501 (88040321)				
TRS	3000.00	30.00	25.48992 (88040321)	TRS	3500.00	30.00	21.60502 (88040321)				
TRS	4000.00	30.00	18.62279 (88040321)	TRS	4500.00	30.00	16.27602 (88040321)				
TRS	5000.00	30.00	14.38788 (88040321)	TRS	2500.00	40.00	39.60632 (88031003)				
TRS	3000.00	40.00	31.75478 (88031003)	TRS	3500.00	40.00	26.17585 (88031003)				
TRS	4000.00	40.00	22.03791 (88031003)	TRS	4500.00	40.00	18.87358 (88031003)				
TRS	5000.00	40.00	16.39241 (88031003)	TRS	1500.00	50.00	54.61851 (88082218)				
TRS	2000.00	50.00	38.00531 (88082218)	TRS	2500.00	50.00	28.09122 (88082218)				
TRS	3000.00	50.00	21.75746 (88082218)	TRS	3500.00	50.00	17.44564 (88082218)				
TRS	4000.00	50.00	14.35791 (88082218)	TRS	4500.00	50.00	12.06275 (88082218)				
TRS	5000.00	50.00	10.31738 (88082509)	TRS	1500.00	60.00	56.32803 (88041509)				
TRS	2000.00	60.00	42.56470 (88041509)	TRS	2500.00	60.00	32.70763 (88041509)				
TRS	3000.00	60.00	25.86114 (88041509)	TRS	3500.00	60.00	20.99357 (88041509)				
TRS	4000.00	60.00	17.41748 (88041509)	TRS	4500.00	60.00	14.71389 (88041509)				
TRS	5000.00	60.00	12.61873 (88041509)	TRS	1500.00	70.00	45.57358 (88042518)				
TRS	2000.00	70.00	30.60970 (88042518)	TRS	2500.00	70.00	21.44330 (88042518)				
TRS	3000.00	70.00	16.47598 (88060818)	TRS	3500.00	70.00	14.45921 (88061009)				
TRS	4000.00	70.00	13.08961 (88061009)	TRS	4500.00	70.00	11.93081 (88061009)				
TRS	5000.00	70.00	10.94782 (88061009)	TRS	838.00	80.00	146.93916 (88070106)				
TRS	1100.00	80.00	99.69566 (88012621)	TRS	1500.00	80.00	80.42803 (88060324)				
TRS	2000.00	80.00	59.82181 (88060324)	TRS	2500.00	80.00	42.61877 (88060324)				
TRS	3000.00	80.00	31.17419 (88060324)	TRS	3500.00	80.00	23.62497 (88060324)				
TRS	4000.00	80.00	18.49718 (88060324)	TRS	4500.00	80.00	15.32578 (88082221)				
TRS	5000.00	80.00	13.50791 (88082221)	TRS	686.00	90.00	164.29913 (88060718)				
TRS	1100.00	90.00	87.38844 (88012315)	TRS	1500.00	90.00	56.22298 (88081324)				
TRS	2000.00	90.00	58.27762c (88051124)	TRS	2500.00	90.00	52.16898c (88051124)				
TRS	3000.00	90.00	42.67763c (88051124)	TRS	3500.00	90.00	34.50779c (88051124)				
TRS	4000.00	90.00	28.21147c (88051124)	TRS	4500.00	90.00	23.43195c (88051124)				
TRS	5000.00	90.00	20.42398c (88081006)	TRS	533.00	100.00	220.06218 (88121321)				
TRS	700.00	100.00	134.26155 (88040506)	TRS	1100.00	100.00	99.82272 (88081921)				
TRS	1500.00	100.00	68.03221 (88081921)	TRS	2000.00	100.00	40.56577 (88041224)				
TRS	2500.00	100.00	38.31494 (88032124)	TRS	3000.00	100.00	37.64605 (88032124)				
TRS	3500.00	100.00	33.89903 (88032124)	TRS	4000.00	100.00	29.59647 (88032124)				
TRS	4500.00	100.00	25.61944 (88032124)	TRS	5000.00	100.00	22.26481 (88041221)				
TRS	457.00	110.00	217.43410 (88112324)	TRS	700.00	110.00	155.55469 (88112321)				
TRS	1100.00	110.00	131.61230 (88121321)	TRS	1500.00	110.00	77.85187 (88121821)				
TRS	2000.00	110.00	58.14789 (88022524)	TRS	2500.00	110.00	57.76728 (88022524)				
TRS	3000.00	110.00	46.76046 (88022524)	TRS	3500.00	110.00	35.70735 (88022524)				
TRS	4000.00	110.00	27.02626 (88022524)	TRS	4500.00	110.00	22.74436 (88040506)				

MODELOPTs: CONC

RURAL FLAT

DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	19.55698	(88040506)	TRS	457.00	120.00	191.10529	(88051403)
TRS	700.00	120.00	180.01985	(88112324)	TRS	1100.00	120.00	110.49822	(88112321)
TRS	1500.00	120.00	97.29935c	(88042824)	TRS	2000.00	120.00	57.86563	(88100403)
TRS	2500.00	120.00	51.31976	(88100403)	TRS	3000.00	120.00	38.75007	(88100403)
TRS	3500.00	120.00	28.86407	(88021403)	TRS	4000.00	120.00	29.85342	(88021403)
TRS	4500.00	120.00	29.53423	(88021403)	TRS	5000.00	120.00	28.52011	(88021403)
TRS	457.00	130.00	147.11330	(88010406)	TRS	700.00	130.00	137.29738	(88051403)
TRS	1100.00	130.00	100.09292	(88051403)	TRS	1500.00	130.00	72.96441	(88112324)
TRS	2000.00	130.00	63.72440	(88112324)	TRS	2500.00	130.00	50.26127	(88112324)
TRS	3000.00	130.00	49.54920	(88120203)	TRS	3500.00	130.00	45.38341	(88120203)
TRS	4000.00	130.00	39.64118	(88120203)	TRS	4500.00	130.00	35.06409	(88101203)
TRS	5000.00	130.00	31.07952	(88101203)	TRS	457.00	140.00	151.76527	(88100915)
TRS	700.00	140.00	135.27959	(88100918)	TRS	1100.00	140.00	92.18368	(88030118)
TRS	1500.00	140.00	68.40506	(88030118)	TRS	2000.00	140.00	43.38974	(88051403)
TRS	2500.00	140.00	38.12732	(88051403)	TRS	3000.00	140.00	32.64436	(88051403)
TRS	3500.00	140.00	27.91415	(88051403)	TRS	4000.00	140.00	24.80379c	(88091806)
TRS	4500.00	140.00	23.32419c	(88091806)	TRS	5000.00	140.00	21.54526c	(88091806)
TRS	457.00	150.00	128.06087	(88030518)	TRS	700.00	150.00	93.16763	(88110818)
TRS	1100.00	150.00	86.20138	(88100915)	TRS	1500.00	150.00	60.58925	(88012721)
TRS	2000.00	150.00	48.12748	(88100918)	TRS	2500.00	150.00	40.13948	(88100918)
TRS	3000.00	150.00	32.91903	(88100918)	TRS	3500.00	150.00	28.98785	(88101918)
TRS	4000.00	150.00	25.69471	(88101918)	TRS	4500.00	150.00	22.82229	(88101918)
TRS	5000.00	150.00	20.36039	(88101918)	TRS	488.00	160.00	152.00066	(88111318)
TRS	700.00	160.00	153.71198	(88111318)	TRS	1100.00	160.00	78.92993c	(88080524)
TRS	1500.00	160.00	66.49615c	(88080524)	TRS	2000.00	160.00	56.02622	(88100803)
TRS	2500.00	160.00	43.63176	(88100803)	TRS	3000.00	160.00	33.01406	(88100803)
TRS	3500.00	160.00	25.60733	(88110818)	TRS	4000.00	160.00	22.08249	(88100724)
TRS	4500.00	160.00	20.75886	(88011324)	TRS	5000.00	160.00	20.34748	(88011324)
TRS	533.00	170.00	130.33777	(88020806)	TRS	700.00	170.00	93.85400	(88020806)
TRS	1100.00	170.00	93.67160	(88022424)	TRS	1500.00	170.00	73.48885	(88100924)
TRS	2000.00	170.00	52.10479	(88111318)	TRS	2500.00	170.00	45.40176	(88111318)
TRS	3000.00	170.00	39.10804	(88111318)	TRS	3500.00	170.00	33.75661	(88111318)
TRS	4000.00	170.00	29.34967	(88111318)	TRS	4500.00	170.00	25.73230	(88111318)
TRS	5000.00	170.00	22.75040	(88111318)	TRS	610.00	180.00	135.21301	(88040518)
TRS	700.00	180.00	115.83248	(88040518)	TRS	1100.00	180.00	71.59451	(88011106)
TRS	1500.00	180.00	56.16618	(88101503)	TRS	2000.00	180.00	50.77002	(88101503)
TRS	2500.00	180.00	40.66661	(88101503)	TRS	3000.00	180.00	31.97616	(88101503)
TRS	3500.00	180.00	27.57455	(88082306)	TRS	4000.00	180.00	24.27570	(88082306)
TRS	4500.00	180.00	21.41080	(88082306)	TRS	5000.00	180.00	18.97211	(88082306)
TRS	750.00	190.00	143.47252	(88011006)	TRS	1100.00	190.00	94.86514	(88011006)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 3-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	61.06821	(88011006)	TRS	2000.00	190.00	50.55736	(88010606)
TRS	2500.00	190.00	40.67055	(88010606)	TRS	3000.00	190.00	32.98104	(88010606)
TRS	3500.00	190.00	27.19146	(88010606)	TRS	4000.00	190.00	22.80115	(88010606)
TRS	4500.00	190.00	19.41486	(88010606)	TRS	5000.00	190.00	16.75399	(88010606)
TRS	1829.00	200.00	44.94523	(88103124)	TRS	2000.00	200.00	41.19403	(88103124)
TRS	2500.00	200.00	32.53789	(88103124)	TRS	3000.00	200.00	26.49359	(88103124)
TRS	3500.00	200.00	22.40192	(88112924)	TRS	4000.00	200.00	20.19077	(88112924)
TRS	4500.00	200.00	18.34806	(88112924)	TRS	5000.00	200.00	16.78798	(88112924)
TRS	1829.00	210.00	52.88928	(88100821)	TRS	2000.00	210.00	48.71584	(88100821)
TRS	2500.00	210.00	39.24657	(88100821)	TRS	3000.00	210.00	32.51717	(88100821)
TRS	3500.00	210.00	27.57270	(88100821)	TRS	4000.00	210.00	23.79643	(88100821)
TRS	4500.00	210.00	21.50447	(88011524)	TRS	5000.00	210.00	19.86665	(88011524)
TRS	1981.00	220.00	31.61872	(88050118)	TRS	2000.00	220.00	31.33845	(88050118)
TRS	2500.00	220.00	25.75893	(88083103)	TRS	3000.00	220.00	23.11626	(88083103)
TRS	3500.00	220.00	20.74840	(88083103)	TRS	4000.00	220.00	18.74020	(88083103)
TRS	4500.00	220.00	17.02444	(88083103)	TRS	5000.00	220.00	15.54777	(88083103)
TRS	2134.00	230.00	31.45660	(88122906)	TRS	2500.00	230.00	27.03130	(88122906)
TRS	3000.00	230.00	22.38813	(88122906)	TRS	3500.00	230.00	18.88534	(88122906)
TRS	4000.00	230.00	16.17853	(88122906)	TRS	4500.00	230.00	14.04200	(88122906)
TRS	5000.00	230.00	12.32418	(88122906)	TRS	2438.00	240.00	20.31750	(88110918)
TRS	2500.00	240.00	19.85841	(88110918)	TRS	3000.00	240.00	17.14475	(88091324)
TRS	3500.00	240.00	16.73151	(88091324)	TRS	4000.00	240.00	16.15175	(88091324)
TRS	4500.00	240.00	15.48512	(88091324)	TRS	5000.00	240.00	14.78684	(88091324)
TRS	2896.00	250.00	24.34989	(88050103)	TRS	3000.00	250.00	23.28883	(88050103)
TRS	3500.00	250.00	19.04832	(88050103)	TRS	4000.00	250.00	15.88699	(88050103)
TRS	4500.00	250.00	13.47150	(88050103)	TRS	5000.00	250.00	12.16508	(88013024)
TRS	3048.00	260.00	38.84990	(88091224)	TRS	3500.00	260.00	33.44353	(88091224)
TRS	4000.00	260.00	28.38337	(88091224)	TRS	4500.00	260.00	26.60597	(88082003)
TRS	5000.00	260.00	25.32922	(88082003)	TRS	3658.00	270.00	30.88263	(88082706)
TRS	4000.00	270.00	27.88263	(88082706)	TRS	4500.00	270.00	24.09101	(88082706)
TRS	5000.00	270.00	20.95844	(88082706)	TRS	3962.00	280.00	31.89963	(88091724)
TRS	4000.00	280.00	31.58509	(88091724)	TRS	4500.00	280.00	27.64084	(88091724)
TRS	5000.00	280.00	24.46403c	(88091703)	TRS	4572.00	290.00	27.29654	(88102921)
TRS	5000.00	290.00	26.13282	(88102921)	TRS	5182.00	300.00	24.05723	(88100306)
TRS	4801.00	310.00	22.11735	(88112006)	TRS	5000.00	310.00	20.90480	(88112006)
TRS	4875.00	320.00	22.24321c	(88081906)	TRS	5000.00	320.00	21.79167c	(88081906)
TRS	6000.00	330.00	25.73578	(88100309)	TRS	5500.00	340.00	11.57099	(88071724)
TRS	5250.00	350.00	17.80679	(88090824)	TRS	5125.00	360.00	16.83894	(88112021)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	10.00	52.59399	(88082201)	TRS	4500.00	20.00	44.19944	(88072304)
TRS	5000.00	20.00	39.65284	(88072304)	TRS	2500.00	30.00	84.38385	(88030323)
TRS	3000.00	30.00	66.48689	(88030323)	TRS	3500.00	30.00	54.12083	(88030323)
TRS	4000.00	30.00	46.97969	(88092322)	TRS	4500.00	30.00	42.88671	(88092322)
TRS	5000.00	30.00	39.35564	(88092322)	TRS	2500.00	40.00	62.35506	(88032704)
TRS	3000.00	40.00	51.57917	(88032704)	TRS	3500.00	40.00	43.45691	(88032704)
TRS	4000.00	40.00	37.19504	(88032704)	TRS	4500.00	40.00	32.26617	(88032704)
TRS	5000.00	40.00	28.31398	(88032704)	TRS	1500.00	50.00	108.94516	(88071016)
TRS	2000.00	50.00	82.92516	(88071016)	TRS	2500.00	50.00	64.90658	(88071016)
TRS	3000.00	50.00	52.28992	(88071016)	TRS	3500.00	50.00	43.17709	(88071016)
TRS	4000.00	50.00	36.36717	(88071016)	TRS	4500.00	50.00	31.13556	(88071016)
TRS	5000.00	50.00	29.33640	(88082523)	TRS	1500.00	60.00	96.14806	(88041507)
TRS	2000.00	60.00	74.86479	(88041507)	TRS	2500.00	60.00	60.26837	(88080608)
TRS	3000.00	60.00	51.02768	(88080608)	TRS	3500.00	60.00	43.60643	(88080608)
TRS	4000.00	60.00	37.67458	(88080608)	TRS	4500.00	60.00	32.89939	(88080608)
TRS	5000.00	60.00	29.11702	(88082407)	TRS	1500.00	70.00	115.11005	(88022315)
TRS	2000.00	70.00	66.51138	(88022315)	TRS	2500.00	70.00	48.66719	(88100317)
TRS	3000.00	70.00	40.80614	(88090321)	TRS	3500.00	70.00	37.77795	(88090321)
TRS	4000.00	70.00	34.71415	(88090321)	TRS	4500.00	70.00	31.85756	(88090321)
TRS	5000.00	70.00	29.27440	(88090321)	TRS	838.00	80.00	231.21617	(88042607)
TRS	1100.00	80.00	202.82338	(88073019)	TRS	1500.00	80.00	151.50359	(88073019)
TRS	2000.00	80.00	101.07246	(88092604)	TRS	2500.00	80.00	91.68405	(88092604)
TRS	3000.00	80.00	75.29630	(88092604)	TRS	3500.00	80.00	60.59877	(88092604)
TRS	4000.00	80.00	52.26691	(88082221)	TRS	4500.00	80.00	45.97733	(88082221)
TRS	5000.00	80.00	40.52372	(88082221)	TRS	686.00	90.00	244.46687	(88051905)
TRS	1100.00	90.00	186.70375	(88030321)	TRS	1500.00	90.00	154.05945	(88082209)
TRS	2000.00	90.00	106.75772	(88040421)	TRS	2500.00	90.00	86.36909	(88040421)
TRS	3000.00	90.00	71.72787	(88092201)	TRS	3500.00	90.00	68.57603	(88092201)
TRS	4000.00	90.00	65.11544	(88081004)	TRS	4500.00	90.00	63.80552	(88081004)
TRS	5000.00	90.00	61.27195	(88081004)	TRS	533.00	100.00	279.46149	(88082309)
TRS	700.00	100.00	257.91968	(88062722)	TRS	1100.00	100.00	187.97423	(88070101)
TRS	1500.00	100.00	144.62309	(88041322)	TRS	2000.00	100.00	107.00113	(88083019)
TRS	2500.00	100.00	98.12579	(88032124)	TRS	3000.00	100.00	94.46135	(88032124)
TRS	3500.00	100.00	83.07417	(88032124)	TRS	4000.00	100.00	70.74809	(88032124)
TRS	4500.00	100.00	59.73304	(88032124)	TRS	5000.00	100.00	51.75617	(88071621)
TRS	457.00	110.00	278.04190	(88092209)	TRS	700.00	110.00	250.93474	(88042718)
TRS	1100.00	110.00	169.66273	(88082309)	TRS	1500.00	110.00	147.75206	(88071616)
TRS	2000.00	110.00	105.25901	(88051824)	TRS	2500.00	110.00	90.71335	(88072623)
TRS	3000.00	110.00	74.24886	(88112824)	TRS	3500.00	110.00	66.67187	(88112824)
TRS	4000.00	110.00	58.59095	(88040807)	TRS	4500.00	110.00	54.80290	(88040807)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): BLCHSCR, TRS ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	5000.00	110.00	50.37338	(88040807)	TRS	457.00	120.00	274.03574	(88091806)
TRS	700.00	120.00	238.90845	(88052108)	TRS	1100.00	120.00	166.78687	(88022024)
TRS	1500.00	120.00	146.52597	(88042822)	TRS	2000.00	120.00	127.26403	(88091822)
TRS	2500.00	120.00	97.02572	(88091822)	TRS	3000.00	120.00	91.49860	(88040802)
TRS	3500.00	120.00	84.14272	(88040802)	TRS	4000.00	120.00	73.64909	(88040802)
TRS	4500.00	120.00	66.60049	(88021402)	TRS	5000.00	120.00	62.01511	(88021402)
TRS	457.00	130.00	254.44283	(88110819)	TRS	700.00	130.00	225.91492	(88030319)
TRS	1100.00	130.00	173.44418	(88121518)	TRS	1500.00	130.00	142.95911	(88122402)
TRS	2000.00	130.00	101.72400	(88120719)	TRS	2500.00	130.00	105.05209	(88040803)
TRS	3000.00	130.00	88.11182	(88120201)	TRS	3500.00	130.00	81.22908	(88120201)
TRS	4000.00	130.00	71.31363	(88120201)	TRS	4500.00	130.00	61.43932	(88120201)
TRS	5000.00	130.00	52.66229	(88120201)	TRS	457.00	140.00	267.44965	(88092409)
TRS	700.00	140.00	221.84973	(88122310)	TRS	1100.00	140.00	183.39449	(88062317)
TRS	1500.00	140.00	133.55705	(88090621)	TRS	2000.00	140.00	98.81658	(88121005)
TRS	2500.00	140.00	86.75361	(88050520)	TRS	3000.00	140.00	79.47645	(88050520)
TRS	3500.00	140.00	76.36496	(88091806)	TRS	4000.00	140.00	74.41138	(88091806)
TRS	4500.00	140.00	69.97256	(88091806)	TRS	5000.00	140.00	64.63578	(88091806)
TRS	457.00	150.00	260.19406	(88111617)	TRS	700.00	150.00	210.13263	(88092218)
TRS	1100.00	150.00	173.73750	(88092409)	TRS	1500.00	150.00	129.92050	(88090323)
TRS	2000.00	150.00	101.94114	(88042107)	TRS	2500.00	150.00	79.20683	(88042107)
TRS	3000.00	150.00	73.92259	(88112507)	TRS	3500.00	150.00	64.58585	(88112507)
TRS	4000.00	150.00	55.70740	(88110819)	TRS	4500.00	150.00	56.22571	(88110819)
TRS	5000.00	150.00	55.22812	(88110819)	TRS	488.00	160.00	320.54294	(88101307)
TRS	700.00	160.00	200.73499	(88030517)	TRS	1100.00	160.00	167.60005	(88080524)
TRS	1500.00	160.00	132.16521	(88032723)	TRS	2000.00	160.00	100.30027	(88111319)
TRS	2500.00	160.00	84.47773	(88092724)	TRS	3000.00	160.00	74.77990	(88092724)
TRS	3500.00	160.00	64.80053	(88070803)	TRS	4000.00	160.00	59.79642	(88070803)
TRS	4500.00	160.00	54.25726	(88070803)	TRS	5000.00	160.00	48.91605	(88070803)
TRS	533.00	170.00	234.64325	(88042708)	TRS	700.00	170.00	206.14848	(88032718)
TRS	1100.00	170.00	186.80571	(88101307)	TRS	1500.00	170.00	152.67337	(88101307)
TRS	2000.00	170.00	115.46654	(88081005)	TRS	2500.00	170.00	105.40244	(88081005)
TRS	3000.00	170.00	88.64957	(88081005)	TRS	3500.00	170.00	73.01128	(88081005)
TRS	4000.00	170.00	60.14956	(88081005)	TRS	4500.00	170.00	49.94818	(88081005)
TRS	5000.00	170.00	41.90970	(88081005)	TRS	610.00	180.00	220.55547	(88040518)
TRS	700.00	180.00	197.07556	(88090623)	TRS	1100.00	180.00	165.67493	(88083021)
TRS	1500.00	180.00	120.64014	(88083021)	TRS	2000.00	180.00	106.44371	(88082306)
TRS	2500.00	180.00	103.26572	(88082306)	TRS	3000.00	180.00	93.47932	(88082306)
TRS	3500.00	180.00	82.72365	(88082306)	TRS	4000.00	180.00	72.82709	(88082306)
TRS	4500.00	180.00	64.23241	(88082306)	TRS	5000.00	180.00	56.91632	(88082306)
TRS	750.00	190.00	183.05249	(88022008)	TRS	1100.00	190.00	137.92613	(88121020)

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BLCHSCRB, TRS

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

ORIGIN					ORIGIN				
SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
TRS	1500.00	190.00	111.22997	(88080601)	TRS	2000.00	190.00	89.26241	(88080601)
TRS	2500.00	190.00	76.35265	(88042702)	TRS	3000.00	190.00	70.94688	(88042702)
TRS	3500.00	190.00	64.89754	(88042702)	TRS	4000.00	190.00	59.11492	(88042702)
TRS	4500.00	190.00	53.88076	(88042702)	TRS	5000.00	190.00	49.24185	(88042702)
TRS	1829.00	200.00	115.13264	(88051404)	TRS	2000.00	200.00	107.03497	(88051404)
TRS	2500.00	200.00	86.94819	(88051404)	TRS	3000.00	200.00	71.80585	(88051404)
TRS	3500.00	200.00	60.37064	(88051404)	TRS	4000.00	200.00	54.18264	(88091704)
TRS	4500.00	200.00	50.07354	(88091704)	TRS	5000.00	200.00	46.39748	(88091704)
TRS	1829.00	210.00	108.60098	(88011524)	TRS	2000.00	210.00	104.45188	(88011524)
TRS	2500.00	210.00	93.60129	(88011524)	TRS	3000.00	210.00	84.47279	(88011524)
TRS	3500.00	210.00	76.75583	(88011524)	TRS	4000.00	210.00	70.17545	(88011524)
TRS	4500.00	210.00	64.51340	(88011524)	TRS	5000.00	210.00	59.59995	(88011524)
TRS	1981.00	220.00	60.64824	(88081008)	TRS	2000.00	220.00	60.15238	(88081008)
TRS	2500.00	220.00	49.00352	(88081008)	TRS	3000.00	220.00	40.78184	(88081008)
TRS	3500.00	220.00	38.10457	(88102705)	TRS	4000.00	220.00	36.31813	(88102705)
TRS	4500.00	220.00	34.65793	(88102705)	TRS	5000.00	220.00	33.05822	(88102705)
TRS	2134.00	230.00	58.20345	(88121119)	TRS	2500.00	230.00	50.29745	(88121119)
TRS	3000.00	230.00	41.90161	(88121119)	TRS	3500.00	230.00	35.51184	(88121119)
TRS	4000.00	230.00	31.36111	(88091305)	TRS	4500.00	230.00	29.59725	(88091305)
TRS	5000.00	230.00	27.95321	(88091305)	TRS	2438.00	240.00	58.02523	(88090702)
TRS	2500.00	240.00	56.74311	(88090702)	TRS	3000.00	240.00	47.73782	(88090702)
TRS	3500.00	240.00	40.70898	(88090702)	TRS	4000.00	240.00	36.24209	(88011523)
TRS	4500.00	240.00	34.14671	(88011523)	TRS	5000.00	240.00	32.13344	(88011523)
TRS	2896.00	250.00	49.79200	(88090803)	TRS	3000.00	250.00	47.98265	(88090803)
TRS	3500.00	250.00	40.48927	(88090803)	TRS	4000.00	250.00	35.49708	(88093007)
TRS	4500.00	250.00	32.60582	(88093007)	TRS	5000.00	250.00	30.12095	(88093007)
TRS	3048.00	260.00	80.44320	(88040107)	TRS	3500.00	260.00	66.96635	(88071121)
TRS	4000.00	260.00	59.18018	(88071121)	TRS	4500.00	260.00	52.45599	(88073001)
TRS	5000.00	260.00	48.94914	(88073001)	TRS	3658.00	270.00	71.90518	(88082706)
TRS	4000.00	270.00	63.31567	(88082706)	TRS	4500.00	270.00	54.26188	(88091624)
TRS	5000.00	270.00	48.57482	(88091624)	TRS	3962.00	280.00	49.95248	(88091723)
TRS	4000.00	280.00	49.63365	(88091723)	TRS	4500.00	280.00	46.63474	(88091601)
TRS	5000.00	280.00	45.14142	(88091601)	TRS	4572.00	290.00	67.66553	(88032505)
TRS	5000.00	290.00	63.02503	(88032505)	TRS	5182.00	300.00	50.47078	(88032506)
TRS	4801.00	310.00	52.80552	(88062901)	TRS	5000.00	310.00	51.09566	(88062901)
TRS	4875.00	320.00	66.72963	(88081906)	TRS	5000.00	320.00	65.37501	(88081906)
TRS	6000.00	330.00	68.53410	(88100308)	TRS	5500.00	340.00	29.76278	(88071506)
TRS	5250.00	350.00	47.46610	(88072203)	TRS	5125.00	360.00	50.51681	(88112021)

MODELPTS: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8784 HRS) RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	1ST HIGHEST VALUE IS 7.78206 AT (	524.90, -92.55,	0.00, 0.00)	DP NA
	2ND HIGHEST VALUE IS 7.49086 AT (	429.44, -156.30,	0.00, 0.00)	DP NA
	3RD HIGHEST VALUE IS 6.29031 AT (	657.78, -239.41,	0.00, 0.00)	DP NA
	4TH HIGHEST VALUE IS 5.45361 AT (	395.77, -228.50,	0.00, 0.00)	DP NA
	5TH HIGHEST VALUE IS 5.15738 AT (	689.37, -121.55,	0.00, 0.00)	DP NA
	6TH HIGHEST VALUE IS 5.01939 AT (	350.08, -293.75,	0.00, 0.00)	DP NA
	7TH HIGHEST VALUE IS 4.94568 AT (	293.75, -350.08,	0.00, 0.00)	DP NA
	8TH HIGHEST VALUE IS 4.87878 AT (	228.50, -395.77,	0.00, 0.00)	DP NA
	9TH HIGHEST VALUE IS 4.77225 AT (	606.22, -350.00,	0.00, 0.00)	DP NA
	10TH HIGHEST VALUE IS 4.58953 AT (	686.00, 0.00,	0.00, 0.00)	DP NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	106.51340 ON 88121724: AT (524.90, -92.55, 0.00, 0.00)	DP	NA
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*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	150.50316	ON 88112324: AT (429.44, -156.30, 0.00, 0.00)	DP	NA
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- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 3-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
L	HIGH 1ST HIGH VALUE IS 220.06218	ON 88121321: AT (	524.90, -92.55, 0.00, 0.00)	DP	NA

** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

MODELOPTs: CONC

RURAL FLAT DFAULT

NOCMPL

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
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L	HIGH 1ST HIGH VALUE IS	320.54294	ON 88101307: AT (166.91, -458.57, 0.00, 0.00)	DP	NA
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- ** RECEPTOR TYPES:
- GC = GRIDCART
 - GP = GRIDPOLR
 - DC = DISCCART
 - DP = DISCPOLR
 - BD = BOUNDARY

MODELOPTs: CONC RURAL FLAT DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

Total of 0 Fatal Error Message(s)
Total of 1 Warning Message(s)
A Total of 1844 Informational Message(s)

Total of 1844 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****

S0 W320 27 PPARAM :Input Parameter May Be Out-of-Range for Parameter QS

*** ISCST3 Finishes Successfully ***
