PM
19 January 1988
Atlanta, GA

File Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JAN 15 1988

4APT/APB-am

DER

JAN 22

BAQM

Mr. C. H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Champion International Corporation (PSD-FL-126)
AC 17-140962

Dear Mr. Fancy:

This is to acknowledge the receipt of your December 21, 1987, final determination and permit on the installation of a skid mounted temporary gas fired boiler at the above-referenced source.

We have reviewed your submittal and concur with your decision. However, I would like to add that the "top-down" BACT policy has been implemented by EPA as of December 1, 1987, with the issuance of the memorandum entitled, "Improving New Source Review (NSR) Implementation" (copy enclosed). Efforts are now being made on our part to inform all of the State/local agencies with regard to the full meaning of this document. Meanwhile, please inform all future applicable sources to perform BACT determinations in a "top-down" fashion and to take into consideration all unregulated toxic air pollutants along with regulated air pollutants when making applicable BACT determinations.

Thank you for the opportunity to provide our comments. If you have any questions, please contact me or Gary Ng of my staff at (404) 347-2864.

Sincerely yours,

Bruce P. Miller

Bruce P. Miller, Chief
Air Programs Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

Copied: Pradeep Pasal, Tom Rogers, CHF IBT — 1.25.88 (mf)
Barry Andrews, Willard Hanks, Bruce Mitchell, Mike Manley, John Reynolds, Teresa Nolan — copied due to the attached memo

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Emery
0302-6984-1

PM
10129187
Cantonment, FL

file copy

Champion
Champion International Corporation

DER
OCT 30 1987
BAQM

October 29, 1987
AC 17-140962

Mr. William Thomas
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

Attached is the additional information which was requested during our meeting on October 23, 1987.

If I can provide any other information, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/ma
Attachment

cc: Thomas Moody, DER Pensacola

Pradeep Raval, DER Tallahassee
Thomas Rogers, DER Tallahassee
CHFIST

FORM OF PAYMENT *

CASH ☐ GBL CBL ☐ FCCOD ☐

PPD ☒ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

0 3 0 2 7 6 9 8 4 1

UNITED STATES / CANADA

STANDARD SERVICES *

Same Day ☐ Other ☐
Next Morning ☒ Metro ☐
Second Morning ☐

INTERNATIONAL

STANDARD SERVICES *

Courier Express ☐ Business Documents ☐
Air Cargo Service ☐ Customs Clearance ☐
Air Economy Service ☐ Delivery ☐

E Shippers Emery Account Number: 991260597

Date: 10/30/92 Origin: PNS

Shipment Number: 030276984

From:

David Arceneaux 904/968-2121

CHAMPION INTERNATIONAL

MUSCOGEE RD

CANTONMENT, FL. Canada ☐

Customer's Reference Numbers

Zip: 32533

To:

Mr. William Thomas - EGR

Tom Tomas Office Building

2600 Blair Stone Road

Tallahassee, FL Canada ☐

Saturday Delivery ☐

Hold at Airport ☐

Tariff Dest. | Gateway

C.O.D. $

E Consignee's Emery Account No.

Zip: 3 2 3 0 2

Description and Marks	Dimensions L	W	H	Pieces	Weight (In Lbs.)
Urgent Letter				1	1

TODSR ☐ Haz Mat ☐ Edit ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐

1 2 3 4 5 6
7 8 9 0 1 2

Envelope 9X12 ☒ Pack 12X15 ☒

Shipper's Signature X

32301 N

Terms and Conditions on Back

International Charges: Free Domicile ☐ Comm. Code

Third party Emery Account Number mandatory for Third party billing E Third Party Emery Account No.

At Origin
Base Charge
At Destination
TOTAL

Intl. Customs Value | Intl. Insurance

Total Transportation Charges | Other Charges ☐ OC- $

	Mo.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Multiple Shpts. / Drop Box
Time Rec'd By Emery	Day	1	2	3	4	5	6	7	8	9	0	1	2	1 2 3 4 5 6
	24 Hour Time	1 3	0 4	1 5	2 6	0 7	2 8	1 9		00 30		15 45		7 8 9 0 1 2
														Over 32 →

Goods Rec'd At: Shippers Door ☒ Drop Box ☐ A ☐ Emery Terminal ☐ Carrier Advance ☐ B ☐

By: Emery Representative.

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Emery World Wide file Copy
0302-76986
Mailed 11/5/87

Champion
Champion International Corporation

DER
NOV 6 1987
BAQM

November 5, 2987

Mr. Pradeep Raval
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Raval:

Enclosed are two documents which we discusssed by telephone today. First is the original ASME Form P3 showing that the rental package boiler was built in 1964. The current owner of the boiler, Holman Boiler Works, Inc., replaced the tubes in the boiler in 1982. This was the last major work done on the boiler. The burner supplier, Coen, is currently rebuilding the burner to meet the .2 lb/MM Btu NOx requirement.

The second document is a page from a performance guarantee for a boiler which our Quinnesec, Michigan mill is installing as part of an expansion at that facility. This performance guarantee is for a low NOx burner which should have the same CO emissions as the standard burner which will be installed in a package boiler we are renting. The guarantee showed a CO value of 175 parts/million which for that particular boiler at its flow rate calculates as .22 lb CO/MM Btu heat input. Champion is in the process of getting a guarantee from Coen for the burner that will be installed in the package boiler we are renting. We expect that number to be .24 lb/MM Btu heat input, which should be the value in the construction permit.

If there are any questions concerning this information, please contact me at the mill.

Sincerely,

David T. Arceneaux

DTA/hs

Attachments

cc: Mr. Thomas Moody - DER, Pensacola
Mr. William Thomas - DER, Tallahassee

Copied: CHF/BT
Pradeep Raval
Tom Rogers
Barry Andrews
} 11/6/87 MP

FORM OF PAYMENT *

CASH ☐ GBL CBL ☐ FCCOD ☐

PPD ☐ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

0 3 0 2 7 6 9 8 6 3

UNITED STATES / CANADA		INTERNATIONAL	
STANDARD SERVICES *		STANDARD SERVICES *	
Same Day ☐	Other ☐	Courier Express ☐	Business Documents ☐
Next Morning ☐	Metro ☐	Air Cargo Service ☐	Customs Clearance ☐
Second Morning ☐		Air Economy Service ☐	Delivery ☐

E Shippers Emery Account Number: 99126059?

Date | Origin: PNS | Shipment Number: 030276986

From:

David Nicholson 904/968-2221

CHAMPION INTERNATIONAL

MUSCOGEE RD

CANTONMENT, FL

Canada ☐

Customer's Reference Numbers

Zip: 32533

To:

Mr. Bradley Novak

Florida Dept. of Environmental Pro.

2600 Blair Stone Road

Tallahassee FL

Canada ☐

E Consignee's Emery Account No.

Zip: 3 2 3 0 1

Saturday Delivery ☐

Tariff Dest. | Gateway

C.O.D. $

Hold at Airport ☐

C D E F G H A B

Description and Marks	Dimensions L	W	H	Pieces	Weight (In Lbs.)
Wood Logs				1	1

TODSR ☐ Haz Mat ☐ Edit ☐ A B C D E F G H I J K

1 2 3 4 5 6 7 8 9 0 1 2

Envelope 9X12 ☐ Pack 12X15 ☐

Shipper's Signature X

3230 N

Terms and Conditions on Back

International Charges: Free Domicile ☐ | Comm. Code

Third party Emery Account Number mandatory for Third party billing

E Third Party Emery Account No.

At Origin

Base Charge

At Destination

TOTAL

Intl. Customs Value | Intl. Insurance

Total Transportation Charges

Other Charges ☐ OC- $

	Mo.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Multiple Shpts. / Drop Box
Time Rec'd By Emery	Day	1	2	3	4	5	6	7	8	9	0	1	2	1 2 3 4 5 6
	24 Hour Time	1	0	1	2	0	2	1		00		15		7 8 9 0 1 2
		3	4	5	6	7	8	9		30		45		Over 32 →

Goods Rec'd At: Shippers Door ☐ Drop Box ☐ A | Emery Terminal ☐ Carrier Advance ☐ B

By: Emery Representative.

PULL !

P 274 007 657

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to T.P. Crane, V.P. Champion International Corp.	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 11/10/87 Permit: AC 17-140962	

PS Form 3800, June 1985 ☆ U.S.G.P.O. 1985-480-794

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to: T.P. Crane, V.P.
Champion International Corp.
P.O. Box 87
Cantonment, FL 32533

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
P 274 007 657

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

P 274 007 656

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to T.P. Crane, V.P, Ops. Mgr. Champion International Corp.	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 11/09/87 Permit: AC 17-140962	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to: T.P. Crane, V.P.
Operations Manager
Champion International Corp.
P.O. Box 87
Cantonment, FL 32533

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 274 007 656

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X Betsy Adams

7. Date of Delivery
11/10/87

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

Dept. of Environmental
Regulation
Bureau of Air
Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-
2400

Dept. of Environmental
Regulation
Northwest District
160 Governmental Center
Pensacola, Florida
32501-5794

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.

LEGAL NO. 33654 1T
NOV. 11, 1987

PENSACOLA
News Journal

PUBLISHED DAILY
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

State of Florida,
County of Escambia.

Before the undersigned authority personally appeared J. Diane Deal

who on oath says that she is Legal Advertising Supervisor of the Pensacola News Journal, a daily newspaper published at Pensacola in Escambia County, Florida; with general circulation in Escambia, Santa Rosa, Okaloosa and Walton Counties that the attached copy of advertisement, being a NOTICE in the matter of

Intent

in the Court,

was published in said newspaper in the issues of

Nov. 11, 1987

Affiant further say that the said The Pensacola News Journal is a newspaper published at Pensacola, in said Escambia County, Florida, and that the said newspaper has heretofore been continuously published in said Escambia County, Florida, each day and has been entered as second class mail matter at the post office in Pensacola, in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

J. Diane Deal

Sworn to and subscribed before me this 11th day of Nov. A.D., 1987

Sally J. Fenton
NOTARY PUBLIC.

My Commission Expires 10/26/91

NOTARY PUBLIC, STATE OF FLORIDA AT LARGE
SALLY J. FENTON

State of Florida
Department of Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. For a maximum of two years, the 195 MMBtu/hr boiler will allow Champion to operate through the winter months and repair existing boilers while on down time. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administration hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application 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:

11.18.87

~~CHF~~
~~[redacted]~~ > FYI

(i)

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
13 Nov. 1987
Cantonment, FL
CF: P-592-826-613

File Copy

Champion
Champion International Corporation

November 13, 1987

Mr. William Thomas
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

The Notice of Proposed Agency Intent to issue a permit to install a skid mounted temporary gas fired package boiler at Champion's Pensacola Mill was published in the Pensacola News Journal on November 11, 1987. Attached is the required proof of publication.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/hs

Attachment

DER
NOV 16 1987
BAQM

cc: Mr. T. W. Moody, P.E.
Special Programs Supervisor
State of Florida
Department of Environmental Regulation
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Copied: CHF/BT
Pradeep Raval
Tom Rogers
Wayne Aronson, EPA

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087

CERTIFIED
P-592 826 613
MAIL

CANTONMENT FLA. MAR 13'87
U.S. POSTAGE
1.67

Champion
Champion International Corporation

Mr. William Thomas
Florida Department of Environmental Reg
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

PM
2 Dec 1987
Atlanta, GA

File Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

DEC - 3 1987

4APT/APB-am

Margaret V. Janes, Planner
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Champion International Corporation (PSD-FL-126)

Dear Ms. Janes:

This is to acknowledge receipt of the permit application for the above-referenced source. After reviewing the application, we have one comment to offer.

For your information, as a result of the North County Resource Recovery PSD remand, source applicants must now consider unregulated pollutants (i.e., air toxics) which may be of concern to the public when performing a best available control technology (BACT) determination for regulated pollutants. For gas fired boilers, the associated air toxics would include formaldehyde and polycyclic organic matter (POM).

In addition, EPA will soon be requiring the "top-down" approach with regard to future BACT determinations. As you may know, this approach requires an applicant to first evaluate the most stringent method of control taking into consideration the control of unregulated air toxics. If the applicant is able to prove that such control is technically and/or economically infeasible, the next most stringent method of control is evaluated and so on. Therefore, we suggest that Champion consider performing a "top down" BACT determination taking into account the two associated unregulated air pollutants.

Please forward a copy of the preliminary determination and draft permit upon issuance. If you have any additional comment or information, please contact me or Gary Ng of my staff at (404) 347-2864.

Sincerely yours,

Bruce P. Miller

Bruce P. Miller, Chief
Air Programs Branch
Air, Pesticides, and Toxics
Management Division

DER
DEC 7 1987
BAQM

Copied: CHF/BT
Pradeep Raval
Tom Rogers

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

AIR-4

12·9·87

~~CHF~~
~~ST~~ > FYI

(i)

U.S. OFFICIAL MAIL
ATLANTA DEC-2'87 GA.
PENALTY FOR PRIVATE USE $300
P.B. METER 6250488
U.S. POSTAGE = 0.22

Ms. Margaret V. Janes, Planner
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

P 274 007 618

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. T.P. Crane, V.P. Champion International Corp.	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 12/21/87 Permit: AC 17-140962 Federal: PSD-FL-126	

PS Form 3800, June 1985 * U.S.G.P.O. 1985-480-794

PS Form 3811, July 1983 447-845 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to: T.P. Crane, V.P.
Operations Manager
Champion International Corporation
P.O. Box 87
Cantonment, FL 32533

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 274 007 618

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X Betsy Adams

7. Date of Delivery
12/22/87

8. Addressee's Address *(ONLY if requested and fee paid)*

Jill

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. T. P. Crane, Vice President
Operations Manager
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533

December 21, 1987

Enclosed is permit No. AC 17-140962/PSD-FL-126, for Champion International Corporation to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

Copy furnished to:

E. Middleswart, NW Dist.
D. Smith, P.E.
D. Arceneaux, CIC
W. Aronson, EPA
B. Pittman, Esq.

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) Clair Fancy	Initial	
	Date	
2.	Initial	
	Date	
3.	Initial	
	Date	
4.	Initial	
	Date	

REMARKS:

DER

DEC 18 1987

BAQM

E.
CC: Middleswart, NW Dist
D. Smith, PE
D. Arceneaux CIC
W Aronson - EPA
B Pittman - Eq.

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM: Swachtmann

DATE

PHONE

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Champion
Champion International Corporation

April 13, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

The package boiler was installed and began operation on February 12, 1988. We had planned the compliance test for late February, but have been unable to test due to the stack arrangement. Because of the installation of an economizer, the boiler duct turns into the stack six feet below the stack exit. The installed stack port is less than three feet below the stack exit. Due to this arrangement there is no way we can measure flow nor get a good gas concentration.

Champion proposes to measure the flue gas just above the economizer in a rectangular section of the duct just below the turning vanes. The attached drawing shows the location of this test port. Because of the location of the steam drum and economizer, the flue gases across the width of the duct should be uniform. The gases along the length may not be uniform. However, by measuring at four equal distance points along the length, and averaging results, a good measure of flue gas concentration can be accomplished. In order to measure flow, a complete traverse using a continuous oxygen meter along with F factor from fuel usage should provide accurate flow measurement.

Because of the testing difficulties, and the delay in start-up of the boiler, Champion requests an extension of the Construction Permit AC 17-140962 to October 1, 1988. This will provide sufficient time to complete testing and submit an operating permit application.

FORM OF PAYMENT *

CASH ☐ GBL/CBL ☐ _____ FCCOD ☐

PPD ☑ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

0458007264

UNITED STATES / CANADA
STANDARD SERVICES *
Same Day ☐ Other ☐
Next Morning ☑ Metro ☐
Second Morning ☐

INTERNATIONAL
STANDARD SERVICES *
Courier Express ☐ Business Documents ☐
Air Cargo Service ☐ Customs Clearance ☐
Air Economy Service ☐ Delivery ☐

E Shippers Emery Account Number: 77126597

Date: 4/14/88 | Origin: FNS | Shipment Number: 045800726

From: [redacted] 904/968-4253 David Rousseau
CHAMPION INTERNATIONAL
DEPT 2005 TECHNICAL
MUSCOGEE RD
CANTONMENT FL
Canada ☐ ☐
Customer's Reference Numbers
Zip: 32533

To: Mr. William Warren
State of Florida
Ruth Rowell Office Building
2600 Blair Stone
Tallahassee, Florida 32301-02[illegible]
Saturday Delivery ☐ Hold at Airport ☐ DGR ☐ DRY ICE ☐
E Consignee's Emery Account No.
Zip: 32301

Tariff Dest. | Gateway

RECEIVED
APR 15 1988
DER BAQM

Check to Ship | $

Emery will collect consignee's check payable only to the shipper for the value of the goods in the amount shown above.

Description and Marks	Dimensions Pcs.	L	W	H	Total Pieces	Total Weight (In Lbs.)
Urgent Letter					1	1

TODSR ☐ Haz Mat ☐ Edit ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐

1 2 3 4 5 6
7 8 9 0 1 2

Envelope 9X12 ☒ Pack 12X15 ☒

Shipper's Signature X [signature]

32301 N

Terms and Conditions on Back

International Charges: Free Domicile ☐ | Comm. Code
Third party Emery Account Number mandatory for Third party billing
E Third Party Emery Account No.

Multiple Shpts. / Drop Box: 1 2 3 4 5 6 / 7 8 9 0 1 2 / Over 32 →

At Origin
Base Charge
At Destination
TOTAL

Intl. Customs Value | Intl. Insurance | Total Transportation Charges

Other Charges ☐ OC- $

Rec'd By Emery | Time Received | Date Received

Goods Rec'd At: Shippers Door ☐ Drop Box ☐ A ☐ Emery Terminal ☐ Carrier Advance ☐ B ☐

By: Emery Representative.

P 274 010 489

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to T.P. Crane, Ops. Mgr. ~~Champion International Corp.~~	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 04/28/88 Permit: AC 17-140962 Federal: PSD-FL-126	

PS Form 3800, June 1985 * U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☒ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: Mr. T.P. Crane, Ops. Mgr. Champion International Corp. P.O. Box 87 Cantonment, FL 32533	4. Article Number P 274 010 489 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature – Addressee X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature – Agent X Betsy Adams	
7. Date of Delivery 4-29-88	

PS Form **3811**, Mar. 1987 * U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
9-2-88
Cantonment, FL

file copy

Champion
Champion International Corporation

September 2, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

Operating problems with the package boiler require the Pensacola Champion mill to request an extension of its construction permit.

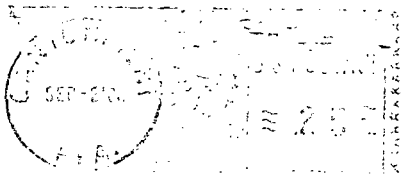
The package boiler was prepared for testing on July 18th but this effort was aborted when a power failure damaged both mill turbine generators. The test was rescheduled. On September 2, 1988, the day of the rescheduled compliance test, the package boiler ruptured a superheater tube and the tests were again cancelled.

We intend to reschedule the test as soon as possible following repairs.

In order to complete the testing requirements and submit an operating permit application Champion is requesting a 60 day extension of the current construction permit.

As I indicated to you by telephone this day, I have also contacted Mr. Jack Preece with your Northwest District Office.

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087



Champion
Champion International Corporation

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

P 274 007 455

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. T. P. Crane, Champion Int.	
Street and No. P. O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533-0087	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Permit: AC 17-140962 PSD-FL-126 Mailed: 9-21-88	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ ~~Show to whom delivered, date, and addressee's address~~ 2. ☐ Restricted Delivery
(Extra charge)† *(Extra charge)†*

FEE NOT PAID

CANTONMENT FL SEP 22 PM 1988

3. Article Addressed to:

Mr. T. P. Crane
Champion International Corp
Post Office Box 87
Cantonment, FL 32533-0087

4. Article Number
P 274 007 455

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X Betsy Adams

7. Date of Delivery
9-22-88

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
12-28-88
Cantonment, FL

EMERY:
ship. #: 214288660

Main File Copy

RECEIVED

DEC 29 1988

DER - BAQM

Champion
Champion International Corporation

December 28, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Packaged Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

The package boiler was tested for compliance on September 27, 1988. Verbal results from the consultant, Weston-ATC, Inc., indicate compliance with all permit conditions. The final report and operating permit application will not be ready for submittal until early January.

Since the construction permit expires on January 1, 1989, Champion requests an extension of 60 days in order to submit the operating permit application.

If you or your staff have any question, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/cr

cc: Ed Middleswart--FDER ✓
Mike Harley
CHF/BT
} 12-29-88 mm

FORM OF PAYMENT *

CASH ☐ GBL ☐ CBL ☐ FCCOD ☐

PPD ☒ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

2142886603

RECEIVED DEC 29 1988 DER-BAQM

UNITED STATES / CANADA

STANDARD SERVICES *

Same Day ☐ Other ☐
Next Morning ☒ Metro ☐
Second Morning ☐

INTERNATIONAL

STANDARD SERVICES *

Courier Express ☐ Business Documents ☐
Air Cargo Service ☐ Customs Clearance ☐
Air Economy Service ☐ Delivery ☐

E Shippers Emery Account Number: 99126059?

Date: 12/28/88 | Origin: PNS | Shipment Number: 21428866O

From:
David Arceneaux
HAMPTON INTERNATIONAL
HUSCOGEE RD
ANTONMENT FL
Canada ☐
Customer's Reference Numbers
Zip 32533

To:
Mr. William Thomas
State of FL Dept. of Environmental Reg.
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241
Canada ☐
E Consignee's Emery Account No.
Zip

Saturday Delivery ☐
Hold at Airport ☐
Tariff Dest. | Gateway
Check to Shipper $

Emery will collect consignee's check made payable only to the shipper for the value of the goods in the amount shown above.

Description and Marks	Dimensions Pcs.	L	W	H	Total Pieces	Total Weight (In Lbs.)
LETTER	1				1	1

TODSR ☐ Haz Mat ☐ Edit ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐

1 2 3 4 5 6
7 8 9 0 1 2

Envelope 9X12 ☒ 12X15 ☐ Pack ☐

Shipper's Signature X

324 N

Terms and Conditions on Back

International Charges: Free Domicile ☐ Comm. Code

Third party Emery Account Number mandatory for Third party billing. E Third Party Emery Account No.

Multiple Shpts. / Drop Box: 1 2 3 4 5 6 / 7 8 9 0 1 2 / Over 32 →

At Origin
Base Charge
At Destination
TOTAL

Intl. Customs Value | Intl. Insurance

Total Transportation Charges

Other Charges ☐ OC- $

Rec'd By Emery | Time Received 1441 | Date Received 12/28/88

Goods Rec'd At: Shippers Door ☐ Drop Box ☐ A ☐ Emery Terminal ☐ Carrier Advance ☐ B ☐

By: Emery Representative. KRM

P 274 007 567

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. T. P. Crane, Champion Int. Corp.	
Street and No. P. O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533-0087	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 1-30-89 Permit: AC 17-140962 PSD-FL-126	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: Mr. T. P. Crane Champion International Corp. P. O. Box 87 Cantonment, FL 32533-0087	4. Article Number P 274 007 567 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise Always obtain signature of addressee or agont and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature — Agent X Dottie Adams	
7. Date of Delivery 11/31/89	

PS Form 3811, Mar. 1988 ★ U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
2-24-89
Cantonment, FL

file copy

Champion
Champion International Corporation

RECEIVED
FEB 27 1989
DER - BAQM

February 23, 1989

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC17-14962, PSD-FL-126

Dear Mr. Thomas:

The operating permit application package for the Gas Fired Package Boiler was submitted to your Northwest District Office on Wednesday, February 23, 1989.

The construction permit will expire on March 2, 1989. I am requesting a 60 day extension of this permit to allow adequate time for agency review of the submitted information and to issue the necessary permit.

If you or your staff have any questions, please call.

Sincerely,

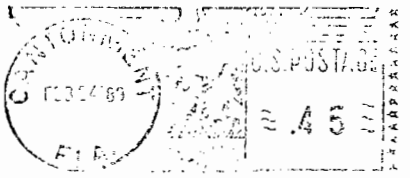
David T. Arceneaux
Supervisor
Environmental Control

DTA/sc

cc: Ed Middleswart - FDER

copied: M. Harley
CHF/BT
W. Aronson 3-30-89 AAM (& amendment letter dated 3-22-89)

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087



Champion
Champion International Corporation

Mr. William Thomas
State of Florida
Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

P 274 010 413

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to T. P. Crane
~~Champion International Corp.~~
Street and No. P.O. Box 87
P.O. State and ZIP Code Cantonment, FL 32533-0087

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	mailed: 3/30/89 Permits: AC 17-140962 PSD-FL-126

PS Form 3800, June 1985 * U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☒ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. T. P. Crane
Champion Int. Corp.
P.O. Box 87
Cantonment, FL 32533-0087

4. Article Number
P 274 010 413

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address
X

6. Signature — Agent
X Gerald McCannon

7. Date of Delivery
3-31-89

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

V. AIR QUALITY ANALYSIS

A. Introduction

Champion proposes to temporarily lease and operate a gas-fired package boiler. The duration of operation is not to exceed two years. The operation of this boiler will have the potential to emit NOx and CO in PSD significant quantities. Both of these pollutants are, thus, subject to the requirements of the PSD regulations as defined in Rule 17-2.500, of the Florida Administrative Code.

An exemption for temporary sources from several of the specific requirements is contained in Rule 17-2.500(3)(c), FAC. This exemption applies to the preconstruction review requirements contained in paragraphs 17-2.500(5)(d),(e),(f),and (g), FAC. It is applicable only if the duration of emissions would not exceed two years and the applicant has provided the Department with reasonable assurance that the increased emissions will not cause or contribute to a violation of an ambient air quality standard or have a significant impact on any Class I area or area where a PSD increment is violated.

The preconstruction review requirements applicable to Champion include:

- A Best Available Control Technology (BACT) analysis, and;

- An Ambient Air Quality Standards (AAQS) analysis.

Based on these analyses and provided that the applicant operates the proposed boiler within the restrictions given in the permit, the Department has reasonable assurance that the increased pollutant emissions will not cause or contribute to a violation of an ambient air quality standard.

B. Ambient Air Quality Standards Analysis

In order to satisfy the reasonable assurance requirement, the applicant submitted the ambient air quality analysis previously completed at the Champion (formerly St. Regis) facility for the construction of the No. 4 Bark Boiler. A series of PSD permits have been associated with this bark boiler. The permit PSD-FL-041 addressed the original contruction of the No. 4 Bark Boiler; the permit PSD-FL-066 addressed allowance for coal burning in the No. 3 and No. 4 boilers; and, the permit PSD-FL-070 addressed an increase in sulfur content of the coal used in the boilers. The air quality analyses for these permits included dispersion modeling for both NOx and CO. The modeling showed that the maximum ambient air concentrations expected due to the increased emissions from the new No. 4 boiler in conjunction with all other sources of NO2 and CO were much less than the air quality standards for these pollutants. Included in these other

sources were emissions from power boilers No. 1, 3, and 4 which have been subsequently shut down. The emission decreases from these power boilers offsets much, if not all, of the currently proposed increase. There have been no significant, new sources of NOx or CO in the area surrounding the Champion facility and the background levels have not significantly changed.

The Department, in addition, completed a screening analysis using the PTPLU dispersion model. The emissions increase associated with the maximum operation of the proprosed temporary boiler was input to the model. The results indicate that the emissions from the temporary boiler, in and of itself, will result in minimal ambient impacts. The maximum one-hour CO concentration is predicted to be less than 0.05 mg/m**3, while the maximum one-hour NO2 concentration is 38 ug/m**3. These concentration increases can be compared to the ambient air quality standards for CO and NO2.

Pollutant	Florida AAQS
CO	
1-hour	40 mg/m**3
8-hour	10 mg/m**3
NO2	
annual	100 ug/m**3

Although the predicted concentrations are applicable to a

one-hour average, a reasonable extrapolation of these results to the longer averaging times associated with the standards produces very small concentration levels.

The pollutants subject to PSD review, NOx and CO, do not have maximum allowable increases (increments) defined for them. As such, an increment analysis is not applicable. Also, the Champion facility is not located within 100 km of any Class I area, therefore, no analysis is necessary.

In summary, the emissions increase of NOx and CO from the temporary boiler will have minimal air quality impacts. The Department is reasonably assured that the operation of the temporary boiler will not cause or contribute to a violation of an ambient air quality standard.

Best Available Control Technology (BACT) Determination
Champion International Corporation
Escambia County

The applicant plans to install a 195 MMBtu/hr natural gas fired boiler at their facility in Cantonment, Florida. The boiler, a skid mounted rental package unit, will be used only temporarily until existing boilers can be repaired or replaced to supply the necessary steam load. The temporary boiler is scheduled to operate 8,760 hours per year.

A BACT determination is required for particulates and sulfur dioxide as set forth in the Florida Administrative Code Rule 17-2.600 (6) - Emissions Limiting and Performance Standards. In addition, the Department has performed a BACT determination for nitrogen oxides (NOx) and carbon monoxide (CO) based on the assumption that the emissions increase of NOx and CO could be greater than the PSD significant rate of 40 and 100 tons per year respectively. The Department which is presently awaiting information that would indicate if BACT for NOx and CO would indeed apply, has decided to go ahead with making a determination of BACT for NOx and CO to expedite the processing of the permit.

BACT Determination Request by the Applicant:

Particulate, sulfur dioxide, nitrogen oxides and carbon monoxide emissions to be controlled by the firing of natural gas.

Date of Receipt of a BACT Application:

October 22, 1987

Review Group Members:

The determination was based upon comments received from the Stationary Source Control Section.

BACT Determined by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas.

Visible Emissions Not to exceed 5% opacity.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

Nitrogen oxides emissions shall not exceed 0.20 lb/MMBtu heat input.

Carbon monoxide emissions shall not exceed 46.8 pounds per hour.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern in that most of the fuel sulfur becomes SO_2 and particulate emissions from fuel burning are related to the sulfur content. The department agrees with the applicant's proposal that the firing of natural gas is BACT for particulates and SO_2.

The emission rate of nitrogen oxides proposed by the applicant is equivalent to 0.20 pounds per million Btu heat input. This proposed emission rate is equal to the New Source Performance Standard (NSPS) for natural gas steam generating units with heat input capacities greater than 100 million Btu/hr and maximum design heat release rates greater than 70,000 Btu/hr-ft^3. In addition to meeting the NSPS for these steam generating units, a review of other BACT determinations for natural gas fired boilers indicates that the proposed emission level for both nitrogen oxides and carbon monoxide is consistent with several of the determinations on record. In accordance with this criteria and the temporary nature of this installation, the applicant's proposed NOx and CO emission rates are justified as being BACT for this source.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E. BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Recommended by:

_____
C. H. Fancy, P.E.
Deputy Bureau Chief, BAQM

_____
Date

Approved by:

_____
Dale Twachtmann, Secretary

_____
Date

→P 4/1

Check Sheet

Company Name: Champion International
Permit Number: AC17-140962
PSD Number:
County: Escambia
Permit Engineer:
Others involved:

Application:
- [x] Initial Application
- [ ] Incompleteness Letters
- [ ] Responses
- [ ] Final Application (if applicable)
- [ ] Waiver of Department Action
- [ ] Department Response

Intent:
- [x] Intent to Issue
- [x] Notice to Public
- [x] Technical Evaluation
- [x] BACT Determination
- [x] Unsigned Permit

  Attachments:
  - [ ]
  - [ ]
  - [ ]

- [ ] Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] County
  - [x] Other
- [x] Proof of Publication
- [ ] Petitions - (Related to extensions, hearings, etc.)

Final Determination:
- [x] Final Determination
- [x] Signed Permit
- [x] BACT Determination

Post Permit Correspondence:
- [x] Extensions
- [ ] Amendments/Modifications
- [ ] Response from EPA
- [ ] Response from County
- [ ] Response from Park Services

In the folder labeled as follows there are documents, listed below, which were not reproduced in this electronic file. Those documents can be found in the supplementary documents file drawer. Folders in that drawer are arranged alphabetically, then by permit number.

Folder Name: Champion International Corp.
Permit(s) numbered: AC 17-140962
PSD-FL-126

Period During Which DOCUMENT WAS SUBMITTED (APPLICATION, PD & TE, FINAL DETERMINATION, POST PERMIT)	Detailed Description
PPC 04/15/88	1. 24"x36" BLUEPRINT: FLUE GAS OUTLET LOCATION OF TEST PORTS DWG NO. 610-6-125

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

	Initial	Date
1. TO: (NAME, OFFICE, LOCATION) Mr. Wayne Aronson, Chief		
2. Program Support Section U.S. EPA, Region IV		
3. 345 Courtland Street, N.E. Atlanta, Georgia 30365		
4.		

RECEIVED
MAR 29 1989
DER - BAQM

REMARKS:

Dear Mr. Aronson:

Please find enclosed the following documents:

a) Public Notice for Tropicana Products, Inc.: PSD-FL-136; and,

b) Amendment to extend the expiration date for Champion International Corporation: PSD-FL-126.

If there are any questions, please give Mr. Bill Thomas a call at (904) 488-1344.

Sincerely,

ublication with
ed permits.

INFORMATION

- Review & Return
- Review & File
- Initial & Forward

DISPOSITION

- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM:
R Bruce Mitchell
for Patty Adams

DATE
March 30, 1989

PHONE
(904) 488-1344

Prader, Raval
Bill Thomas, SW Dist } 3-30-89
Wayne Aronson, EPA

PTPLU -- IMPROVED MODEL FOR SCREENING MAXIMUM CONCENTRATIONS -- VERSION 81035

)))INPUT PARAMETERS(((

TITLE
CHAMPION TEMPORARY GAS-FIRED BOILER

DISPERSION AND DEFAULT

RURAL DEFAULT IS USED

OPTIONS
IF = 1, USE OPTION
IF = 0, IGNORE OPTION
IOPT(1) = 0 (GRAD PLUME RISE)
IOPT(2) = 1 (STACK DOWNWASH)
IOPT(3) = 1 (BUOY. INDUCED DISP.)

METEOROLOGY
AMBIENT AIR TEMPERATURE = 293.00 (K)
MIXING HEIGHT = 2000.00 (M)
ANEMOMETER HEIGHT = 10.00 (M)
WIND PROFILE EXPONENTS = A: .07, B: .07, C: .10
D: .15, E: .35, F: .55

RECEPTOR HEIGHT = .00 (M)

SOURCE
EMISSION RATE = 5.90 (G/SEC)
STACK HEIGHT = 11.00 (M)
EXIT TEMP. = 589.00 (K)
EXIT VELOCITY = 16.80 (M/SEC)
STACK DIAM. = 1.52 (M)

)))CALCULATED PARAMETERS(((

VOLUMETRIC FLOW = 30.49 (M**3/SEC)
BUOYANCY FLUX PARAMETER = 47.82 (M**4/SEC**3)

CHAMPION TEMPORARY GAS-FIRED BOILER

****WINDS CONSTANT WITH HEIGHT****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
1	.50	8.5823E-06	1.202	790.2(2)
1	.80	1.1482E-05	.955	498.0(2)
1	1.00	1.3005E-05	.858	400.6(2)
1	1.50	1.5960E-05	.709	270.7(2)
1	2.00	1.8161E-05	.620	205.8(2)
1	2.50	1.9896E-05	.560	166.8
1	3.00	2.1352E-05	.516	140.9

****STACK TOP WINDS (EXTRAPOLATED FROM 10.0 METERS)****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
1	.50	8.6202E-06	1.198	785.0(2)
1	.81	1.1527E-05	.952	494.8(2)
1	1.01	1.3052E-05	.855	398.0(2)
1	1.51	1.6010E-05	.706	269.0(2)
1	2.01	1.8213E-05	.618	204.5(2)
1	2.52	1.9947E-05	.558	165.8

1	3.02	2.1405E-05	.515	140.0

****WINDS CONSTANT WITH HEIGHT****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
2	.50	4.2689E-06	4.317	790.2(2)
2	.80	6.2043E-06	2.818	498.0(2)
2	1.00	7.3880E-06	2.307	400.6(2)
2	1.50	1.0078E-05	1.610	270.7(2)
2	2.00	1.2472E-05	1.253	205.8(2)
2	2.50	1.4636E-05	1.035	166.8
2	3.00	1.6609E-05	.888	140.9
2	4.00	2.0086E-05	.701	108.4
2	5.00	2.3053E-05	.587	88.9

****STACK TOP WINDS (EXTRAPOLATED FROM 10.0 METERS)****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
2	.50	4.2918E-06	4.290	785.0(2)
2	.81	6.2370E-06	2.801	494.8(2)
2	1.01	7.4264E-06	2.293	398.0(2)
2	1.51	1.0128E-05	1.600	269.0(2)
2	2.01	1.2533E-05	1.246	204.5(2)
2	2.52	1.4705E-05	1.029	165.8
2	3.02	1.6685E-05	.883	140.0
2	4.03	2.0172E-05	.697	107.8
2	5.03	2.3145E-05	.584	88.4

****WINDS CONSTANT WITH HEIGHT****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
3	2.00	1.0240E-05	2.297	205.8(2)
3	2.50	1.2421E-05	1.831	166.8
3	3.00	1.4479E-05	1.526	140.9
3	4.00	1.8259E-05	1.152	108.4
3	5.00	2.1637E-05	.933	88.9
3	7.00	2.7364E-05	.687	66.7
3	10.00	3.3812E-05	.518	50.0
3	12.00	3.7473E-05	.448	43.2
3	15.00	4.3255E-05	.370	35.8

****STACK TOP WINDS (EXTRAPOLATED FROM 10.0 METERS)****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
3	2.02	1.0326E-05	2.275	204.0(2)
3	2.52	1.2522E-05	1.813	165.4
3	3.03	1.4594E-05	1.511	139.6
3	4.04	1.8396E-05	1.142	107.5
3	5.05	2.1790E-05	.924	88.2
3	7.07	2.7535E-05	.681	66.1
3	10.10	3.3977E-05	.515	49.6
3	12.11	3.7711E-05	.444	42.8
3	15.14	4.3510E-05	.367	35.5

****WINDS CONSTANT WITH HEIGHT****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
4	.50	5.8651E-07	66.350	790.2(2)
4	.80	1.2602E-06	29.981	498.0(2)
4	1.00	1.7505E-06	20.521	400.6(2)
4	1.50	3.1595E-06	10.370	270.7(2)
4	2.00	4.6547E-06	7.033	205.8(2)
4	2.50	6.2264E-06	5.028	166.8
4	3.00	7.8535E-06	3.837	140.9
4	4.00	1.1099E-05	2.672	108.4
4	5.00	1.4178E-05	1.993	88.9

4	7.00	1.9992E-05	1.306	66.7
4	10.00	2.7167E-05	.979	50.0
4	12.00	3.0764E-05	.824	43.2
4	15.00	3.6450E-05	.659	35.8
4	20.00	4.4153E-05	.514	28.5

****STACK TOP WINDS (EXTRAPOLATED FROM 10.0 METERS)****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
4	.51	6.0039E-07	64.561	779.2(2)
4	.81	1.2871E-06	29.330	491.1(2)
4	1.01	1.7877E-06	20.010	395.1(2)
4	1.52	3.2253E-06	10.122	267.1(2)
4	2.03	4.7432E-06	6.890	203.0(2)
4	2.54	6.3420E-06	4.922	164.6
4	3.04	7.9958E-06	3.758	139.0
4	4.06	1.1279E-05	2.622	107.0
4	5.07	1.4396E-05	1.957	87.8
4	7.10	2.0270E-05	1.284	65.9
4	10.14	2.7412E-05	.966	49.4
4	12.17	3.1113E-05	.812	42.6
4	15.22	3.6830E-05	.650	35.4
4	20.29	4.4526E-05	.508	28.2

****WINDS CONSTANT WITH HEIGHT****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
5	2.00	2.0535E-05	4.000	96.6
5	2.50	1.9409E-05	3.771	90.5
5	3.00	1.8494E-05	3.453	85.8
5	4.00	1.7101E-05	3.011	79.0
5	5.00	1.6061E-05	2.714	74.1

****STACK TOP WINDS (EXTRAPOLATED FROM 10.0 METERS)****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
5	2.07	2.0375E-05	4.000	95.7
5	2.58	1.9239E-05	3.709	89.6
5	3.10	1.8330E-05	3.399	85.0
5	4.14	1.6943E-05	2.965	78.2
5	5.17	1.5909E-05	2.672	73.4

****WINDS CONSTANT WITH HEIGHT****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
6	2.00	1.9842E-05	6.839	82.1
6	2.50	1.9041E-05	6.028	77.0
6	3.00	1.8384E-05	5.445	73.1
6	4.00	1.7343E-05	4.647	67.4
6	5.00	1.6534E-05	4.115	63.4

****STACK TOP WINDS (EXTRAPOLATED FROM 10.0 METERS)****

STABILITY	WIND SPEED (M/SEC)	MAX CONC (G/CU M)	DIST OF MAX (KM)	PLUME HT (M)
6	2.11	1.9654E-05	6.639	80.8
6	2.63	1.8853E-05	5.850	75.8
6	3.16	1.8195E-05	5.285	72.0
6	4.22	1.7153E-05	4.515	66.4
6	5.27	1.6344E-05	4.004	62.4

(1) THE DISTANCE TO THE POINT OF MAXIMUM CONCENTRATION IS SO GREAT THAT THE SAME STABILITY IS NOT LIKELY TO PERSIST LONG ENOUGH FOR THE PLUME TO TRAVEL THIS FAR.

(2) THE PLUME IS CALCULATED TO BE AT A HEIGHT WHERE CARE SHOULD BE USED IN INTERPRETING THE COMPUTATION.

File Copy

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

March 22, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. T. P. Crane
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533-0087

Dear Mr. Crane:

Re: Extension of Expiration Date, Gas-Fired Package Boiler, AC 17-140962, PSD-FL-126

The Department has received and reviewed Champion's February 23, 1989, request for an extension of the expiration date of the above referenced permit. The Department grants the extension of time so that you may continue to operate the boiler while the application for an operation permit is being processed.

The following shall be changed and added to the permit:

Expiration Date Change:

From: March 2, 1989
To: May 1, 1989

Attachments to be Added:

9. Champion's extension request, dated February 23, 1989, and received February 27, 1989.

This letter shall be attached to the construction permit, AC 17-140962, and shall become a part of the permit.

Sincerely,

Dale Twachtmann
Secretary

DT/mdh

cc: E. Middleswart, NW District
W. Aronson, EPA
H. Dail, CIC
D. Arceneaux, Champion
Mike Harley
Reading File } 3-30-89
Pam Hounume

P 274 010 413

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to T. P. Crane
~~Champion International Corp.~~
Street and No. P.O. Box 87
P.O., State and ZIP Code Cantonment, FL 32533-0087

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	mailed: 3/30/89 Permits: AC 17-140962 PSD-FL-126

PS Form 3800, June 1985 ☆ U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☒ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. T. P. Crane
Champion Int. Corp.
P.O. Box 87
Cantonment, FL 32533-0087

4. Article Number
P 274 010 413

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address
X

6. Signature — Agent
X Gerald L. Mannon

7. Date of Delivery
3-31-89

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Mar. 1988 ☆ U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

Champion

February 23, 1989

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC17-14962, PSD-FL-126

Dear Mr. Thomas:

The operating permit application package for the Gas Fired Package Boiler was submitted to your Northwest District Office on Wednesday, February 23, 1989.

The construction permit will expire on March 2, 1989. I am requesting a 60 day extension of this permit to allow adequate time for agency review of the submitted information and to issue the necessary permit.

If you or your staff have any questions, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/sc

cc: Ed Middleswart - FDER

copied: M. Yarbo
CHF/ST

picked-up from Sec's office: 3-30-89 AM

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

RECEIVED
MAR 24 1989
Office of the Secretary

TO: Dale Twachtmann

FROM: Steve Smallwood

SUBJ: Approval of a Construction Permit Amendment for Champion International Corporation

State Construction Permit Number: AC 17-140962
Federal Permit Number: PSD-FL-126

DATE: March 22, 1989

Attached for your approval and signature is a letter prepared by Central Air Permitting that will amend the construction permit for a gas-fired package boiler by extending the expiration date. The extension will allow the applicant to continue to operate the boiler while the Department processes the application for an operation permit.

The facility is located in Cantonment, Escambia County, Florida. The amendment is not controversial.

I recommend your approval and signature.

SS/mdh

attachments

DT-A

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
2-24-89
Cantonment, FL

file copy

Champion
Champion International Corporation

February 23, 1989

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC17-14962, PSD-FL-126

Dear Mr. Thomas:

The operating permit application package for the Gas Fired Package Boiler was submitted to your Northwest District Office on Wednesday, February 23, 1989.

The construction permit will expire on March 2, 1989. I am requesting a 60 day extension of this permit to allow adequate time for agency review of the submitted information and to issue the necessary permit.

If you or your staff have any questions, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/sc

cc: Ed Middleswart - FDER

copied: M. Harley
CHF/ST

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087

Champion
Champion International Corporation

Mr. William Thomas
State of Florida
Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400
Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

January 20, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. T. P. Crane
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533-0087

Dear Mr. Crane:

Re: Extension of Expiration Date, Gas-Fired Package Boiler, AC 17-140962, PSD-FL-126

The Department has received and reviewed Champion's December 28, 1988, request for an extension of the expiration date of the above referenced permit. The Department grants the extension of time for submission of the final compliance test report and the application for an operation permit.

The following shall be changed and added to the permit:

Expiration Date Change:

From: January 1, 1989
To: March 2, 1989

Attachments to be Added:

8. Champion's extension request, dated December 28, 1988, and received December 29, 1988.

This letter shall be attached to the construction permit, AC 17-140962, and shall become a part of the permit.

Sincerely,

Dale Twachtmann
Secretary

DT/mdh

cc: E. Middleswart, NW District
W. Aronson, EPA
H. Dail, CIC
D. Arceneaux, Champion

P 274 007 567

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. T. P. Crane, Champion Int. Corp.	
Street and No. P. O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533-0087	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 1-30-89 Permit: AC 17-140962 PSD-FL-126	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. T. P. Crane
Champion International Corp.
P. O. Box 87
Cantonment, FL 32533-0087

4. Article Number
P 274 007 567

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address
X

6. Signature — Agent
X Betsy Adams

7. Date of Delivery
1/31/89

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Mar. 1988 ★ U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

12-28-88
Cantonment, FL

AP # 1210228660

Champion
Champion International Corporation

December 28, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Packaged Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

The package boiler was tested for compliance on September 27, 1988. Verbal results from the consultant, Weston-ATC, Inc., indicate compliance with all permit conditions. The final report and operating permit application will not be ready for submittal until early January.

Since the construction permit expires on January 1, 1989, Champion requests an extension of 60 days in order to submit the operating permit application.

If you or your staff have any question, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/cr

cc: Ed Middleswart--FDER
Mike Harley
CHF/GT
12-29-88 RAV

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood

SUBJ: Approval of a Construction Permit Amendment for Champion International Corporation
State Construction Permit Number: AC 17-140962
Federal Permit Number: PSD-FL-126

DATE: January 20, 1989

Attached for your approval and signature is a letter prepared by Central Air Permitting that will amend the construction permit for a gas-fired package boiler by extending the expiration date. The extension is needed for the applicant to submit an application for an operation permit and the results of the compliance test.

The facility is located in Cantonment, Escambia County, Florida. The amendment is not controversial.

I recommend your approval and signature.

SS/mdh

attachments

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
12-28-88
Cantonment, FL

AMEND
Appl. # AC17-140962

Main File Copy

RECEIVED

DEC 29 1988

DER - BAQM

BEST AVAILABLE COPY

Champion
Champion International Corporation

December 28, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Packaged Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

The package boiler was tested for compliance on September 27, 1988. Verbal results from the consultant, Weston-ATC, Inc., indicate compliance with all permit conditions. The final report and operating permit application will not be ready for submittal until early January.

Since the construction permit expires on January 1, 1989, Champion requests an extension of 60 days in order to submit the operating permit application.

If you or your staff have any question, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/cr

cc: Ed Middleswart--FDER

Mike Harley
SED/BT
12-29-88 FAX

FORM OF PAYMENT *

CASH ☐ GBL/CBL ☐ FCCOD ☐

PPD ☒ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

2142886603

RECEIVED DEC 29 1988 DER-BAQM

UNITED STATES / CANADA — STANDARD SERVICES *

Same Day ☐ Other ☐
Next Morning ☒ Metro ☐
Second Morning ☐

INTERNATIONAL — STANDARD SERVICES *

Courier Express ☐ Business Documents ☐
Air Cargo Service ☐ Customs Clearance ☐
Air Economy Service ☐ Delivery ☐

E Shippers Emery Account Number: 49126597

Date: 12/28/88 | Origin: PNS | Shipment Number: 21428866O

From:
David Arceneaux
HAMPTON INTERNATIONAL
[illegible] RD
[illegible] FL
Canada ☐

To:
Mr. William Thomas
State of FL Dept. of Environmental Reg.
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241
Canada ☐

Saturday Delivery ☐ | Hold at Airport ☐ | Tariff Dest. | Gateway

Check to Shipper $

Emery will collect consignee's check made payable only to the shipper for the value of the goods in the amount shown above.

Customer's Reference Numbers: 32533

E Consignee's Emery Account No.

Description and Marks	Dimensions Pcs.	L	W	H	Total Pieces	Total Weight (In Lbs.)
LETTER	1				1	1

TODSR ☐ Haz Mat ☐ Edit ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐

1 2 3 4 5 6
7 8 9 0 1 2

Envelope 9X12 ☒ | 12X15 ☐ | Pack ☒

324N

Terms and Conditions on Back

Shipper's Signature X

International Charges: Free Domicile ☐ | Comm. Code

Third party Emery Account Number mandatory for Third party billing. E | Third Party Emery Account No.

Multiple Shpts. / Drop Box: 1 2 3 4 5 6 / 7 8 9 0 1 2 / Over 32 →

At Origin
Base Charge
At Destination
TOTAL

Intl. Customs Value | Intl. Insurance

Total Transportation Charges

Other Charges ☐ OC- $

Rec'd By Emery | Time Received | Date Received

Goods Rec'd At: Shippers Door ☐ Drop Box ☐ A | Emery Terminal ☐ Carrier Advance ☐ B

By: Emery Representative.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

September 14, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. T. P. Crane
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533-0087

Dear Mr. Crane:

Re: Extension of Expiration Date, Gas-Fired Package Boiler, AC 17-140962, PSD-FL-126

The Department has received and reviewed Champion's request dated September 2, 1988, for an extension of the expiration date of the above referenced permit.

The Department is in agreement with your request. The following shall be changed and added to the permit:

Expiration Date Change:

From: October 1, 1988
To: January 1, 1989

Attachments to be Added:

5. Champion's extension request, dated April 13, 1988.
6. DER's letter granting an extension, dated April 25, 1988.
7. Champion's second extension request, dated September 2, 1988.

This letter must be attached to your construction permit, AC 17-140962/PSD-Fl-126, and shall become a part of the permit.

Sincerely,

Dale Twachtmann
Secretary

DT/ks

cc: E. Middleswart, NW District
W. Aronson, EPA
H. Dail, CIC

P 274 007 455

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1985-480-794

Sent to Mr. T. P. Crane, Champion Int.	
Street and No. P. O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533-0087	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Permit: AC 17-140962 PSD-FL-126 Mailed: 9-21-88	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and address of delivery. FEE NOT *(Extra charge)*†
2. ☐ Restricted Delivery *(Extra charge)*†

CANTONMENT FL SEP 22 PM

3. Article Addressed to:
Mr. T. P. Crane
Champion International Corp.
Post Office Box 87
Cantonment, FL 32533-0087

4. Article Number
P 274 007 455

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X Betsy Adams

7. Date of Delivery
9-22-88

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood

SUBJ: Extension of Expiration Date
Champion International Corporation
Permit No. AC 17-140962, PSD-FL-126

DATE: September 14, 1988

Attached for your approval and signature is a letter prepared by Central Air Permitting to extend the expiration date of the construction permit issued to the above mentioned company for a gas-fired package boiler. The facility is located in Escambia County, Florida.

I recommend your approval and signature.

SS/PR/s

attachments

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To _____ Location _____
To: _____ Location _____
To: _____ Location _____
From: _____ Date: _____

Interoffice Memorandum

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I recommend your approval and signature.

SS/PR/s

attachments

Printing and Writing Papers
375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
9-2-88
Cantonment, FL

file copy

Champion
Champion International Corporation

September 2, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

Operating problems with the package boiler require the Pensacola Champion mill to request an extension of its construction permit.

The package boiler was prepared for testing on July 18th but this effort was aborted when a power failure damaged both mill turbine generators. The test was rescheduled. On September 2, 1988, the day of the rescheduled compliance test, the package boiler ruptured a superheater tube and the tests were again cancelled.

We intend to reschedule the test as soon as possible following repairs.

In order to complete the testing requirements and submit an operating permit application Champion is requesting a 60 day extension of the current construction permit.

As I indicated to you by telephone this day, I have also contacted Mr. Jack Preece with your Northwest District Office.

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087

Champion
Champion International Corporation

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

If you or your staff have any questions please all.

Sincerely,

Harry A. Dail

Harry A. Dail
Process Engineer
Environmental Control

HAD/hs

cc: Mr. Ed Middleswart
State of Florida
Department of Environmental Regulation
160 Governmental Center
Pensacola, Florida 32501-5794

copied: Pradeep Rawal
CHF/BT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

April 25, 1988

Mr. T. P. Crane, Operations Manager
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533

Dear Mr. Crane:

Re: Amendment of Permit No. AC 17-140962 (PSD-FL-126)

The Department is in receipt of Mr. David T. Arceneaux's April 13, 1988, letter requesting the permit to construct a gas-fired package boiler at your plant be extended to allow additional time to complete testing and to submit an application for permit to operate. This request is acceptable, with conditions, and the expiration date of permit No. AC 17-140962 is extended from June 1, 1988, to October 1, 1988.

To clarify the testing requirements for this source, Specific Condition No. 4 of the reference permit is amended as follows:

From:

4. Initial and annual compliance tests shall be conducted as follows:

a) EPA Method 7 for NOx
b) EPA Method 10 for CO
c) DER Method 9 for VE

Other DER approved methods may be used in place of the above tests, only after prior approval from the Department.

To:

4. Initial and annual compliance tests shall be conducted as follows:

a) EPA Method 7 to show compliance with the emission standard of 0.2 lb/MMBtu for NOx.
b) EPA Method 10 to show compliance with the emission standard of 0.24 lb/MMBtu for CO.

c) DER Method 9 to show compliance with the emission standard of 5% opacity.

Prior to the compliance tests for NOx and CO, the permittee shall traverse the duct above the economizer with a continuous oxygen meter and record the oxygen concentrations and distances from the stack wall at a minimum of 12 equally spaced points. The NOx sample shall be collected at the location in the stack having the average O_2 concentration. A composite sample of the flue gas shall be collected at a rate proportional to the stack velocity at the 12 sample points for CO and O_2 analysis. Test results are to be calculated using the "F" factor for natural gas fuel. Visible emissions readings are to be taken at the stack outlet concurrently with the CO tests. If, for good reason this is not done, the tests shall be conducted as close to each other as feasible. All field collected data will be included with the tests report.

A copy of this letter must be attached to the referenced construction permit and shall become a part of that permit.

Sincerely,

Dale Twachtmann

Dale Twachtmann
Secretary

DT/ks

attachment

cc: E. Middleswart, NW District
D. Arceneaux, Champion Int. Corp.

ATTACHMENT

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Champion
Champion International Corporation

April 13, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

The package boiler was installed and began operation on February 12, 1988. We had planned the compliance test for late February, but have been unable to test due to the stack arrangement. Because of the installation of an economizer, the boiler duct turns into the stack six feet below the stack exit. The installed stack port is less than three feet below the stack exit. Due to this arrangement there is no way we can measure flow nor get a good gas concentration.

Champion proposes to measure the flue gas just above the economizer in a rectangular section of the duct just below the turning vanes. The attached drawing shows the location of this test port. Because of the location of the steam drum and economizer, the flue gases across the width of the duct should be uniform. The gases along the length may not be uniform. However, by measuring at four equal distance points along the length, and averaging results, a good measure of flue gas concentration can be accomplished. In order to measure flow, a complete traverse using a continuous oxygen meter along with F factor from fuel usage should provide accurate flow measurement.

Because of the testing difficulties, and the delay in start-up of the boiler, Champion requests an extension of the Construction Permit AC 17-140962 to October 1, 1988. This will provide sufficient time to complete testing and submit an operating permit application.

If you or your staff have any questions, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/hs

cc: Mr. Ed Middleswart
State of Florida
Department of Environmental Regulation
160 Governmental Center
Pensacola, Florida 32501-5794

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee
To: Clair Location
To: Location:
To: Location:
From: Date:

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Howard L. Rhodes

SUBJ: Approval of a Construction Permit Amendment for Champion International Corporation
State Construction Permit Number: AC 17-140962
Federal Permit Number: PSD-FL-126

DATE: April 25, 1988

Attached for your approval and signature is a letter prepared by Central Air Permitting that will extend and amend the construction permit for a gas-fired package boiler. The extension is needed to conduct the compliance tests, which are clarified in this amendment, and submit the application for permit to operate.

The facility is located in Cantonment, Escambia County, Florida. The amendment is not controversial.

I recommend your approval and signature.

HLR/aqm/wh

attachments

RECEIVED
APR 26 1988
Office of the Secretary

RECEIVED
APR 27 1988
DER - BAQM

P 274 010 489

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to T.P. Crane, Ops. Mgr. ~~Champion International Corp.~~	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 04/28/88 Permit: AC 17-140962 Federal: PSD-FL-126	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☒ Show to whom delivered, date, and addressee's address. *(Extra charge)†*
2. ☐ Restricted Delivery *(Extra charge)†*

3. Article Addressed to: Mr. T.P. Crane, Ops. Mgr. Champion International Corp. P.O. Box 87 Cantonment, FL 32533	4. Article Number P 274 010 489 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Addressee X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature — Agent X Betsy Adams	
7. Date of Delivery 4-29-88	

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Champion
Champion International Corporation

April 13, 1988

Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Dear Mr. Thomas:

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FORM OF PAYMENT *

CASH ☐ GBL CBL ☐ [ ] FCCOD ☐

PPD ☑ COL ☐ OTH ☐ COMAT ☐

E Shippers Emery Account Number: 99126059?

EMERY WORLDWIDE

0 4 5 8 0 0 7 2 6 4

UNITED STATES / CANADA STANDARD SERVICES *			INTERNATIONAL STANDARD SERVICES *	
Same Day ☐	Other ☐		Courier Express ☐	Business Documents ☐
Next Morning ☑	Metro ☐		Air Cargo Service ☐	Customs Clearance ☐
Second Morning ☐			Air Economy Service ☐	Delivery ☐

Date: 4/14/88 | Origin: PNS | Shipment Number: 045800726

From:
[redacted] 904/968-4253
David Brosmeyer
CHAMPION INTERNATIONAL
DEPT 2035 TECHNICAL
MUSCOGEE RD
CANTONMENT FL
Canada ☐
Customer's Reference Numbers
Zip: 32533

To:
Mr. William Thomas
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241
Saturday Delivery ☐
Hold at Airport ☐
COD ☐
E Consignee's Emery Account No.
Zip: 32301

RECEIVED
APR 15 1988
DER - BAQM

Check for Shipper $ 1988

Emery will collect consignee's check payable only to the shipper for the value of the goods in the amount shown above.

Description and Marks	Dimensions Pcs.	L	W	H	Total Pieces	Total Weight (In Lbs.)
Urgent Letter					1	

TODSR ☐ Haz Mat ☐ Edit ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐

1	2	3	4	5	6
7	8	9	0	1	2

Envelope 9X12 ☒ Pack 12X15 ☒

Shipper's Signature X

32301 N

Terms and Conditions on Back

International Charges: Free Domicile ☐ Comm. Code

Third party Emery Account Number mandatory for Third party billing: E Third Party Emery Account No.

Multiple Shpts. / Drop Box

1	2	3	4	5	6
7	8	9	0	1	2

Over 32 →

At Origin
Base Charge
At Destination
TOTAL

Intl. Customs Value | Intl. Insurance

Total Transportation Charges

Other Charges ☐ OC~ $

Rec'd By Emery | Time Received | Date Received

Goods Rec'd At: Shippers Door ☐ Drop Box ☐ A ☐ Emery Terminal ☐ Carrier Advance ☐ B ☐

By: Emery Representative.

If you or your staff have any questions, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/hs

cc: Mr. Ed Middleswart
State of Florida
Department of Environmental Regulation
160 Governmental Center
Pensacola, Florida 32501-5794

PM
19 January 1988
Atlanta, GA

File Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JAN 15 1988

4APT/APB-am

DER

JAN 22

BAQM

Mr. C. H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Champion International Corporation (PSD-FL-126)
AC 17-140962

Dear Mr. Fancy:

This is to acknowledge the receipt of your December 21, 1987, final determination and permit on the installation of a skid mounted temporary gas fired boiler at the above-referenced source.

We have reviewed your submittal and concur with your decision. However, I would like to add that the "top-down" BACT policy has been implemented by EPA as of December 1, 1987, with the issuance of the memorandum entitled, "Improving New Source Review (NSR) Implementation" (copy enclosed). Efforts are now being made on our part to inform all of the State/local agencies with regard to the full meaning of this document. Meanwhile, please inform all future applicable sources to perform BACT determinations in a "top-down" fashion and to take into consideration all unregulated toxic air pollutants along with regulated air pollutants when making applicable BACT determinations.

Thank you for the opportunity to provide our comments. If you have any questions, please contact me or Gary Ng of my staff at (404) 347-2864.

Sincerely yours,

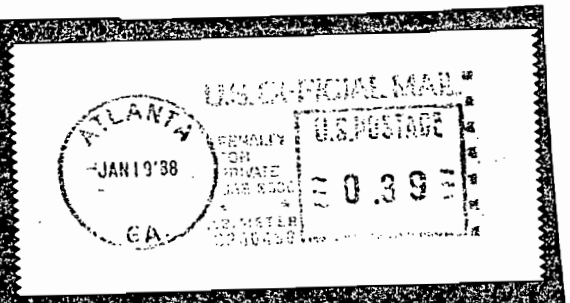
Bruce P. Miller

Bruce P. Miller, Chief
Air Programs Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

Copied: Pradeep Pawal
Tom Rogers
CHF 18F
} 1.25.88 (mo)

Barry Andrews
Willard Hanks
Bruce Mitchell
Mike Manley
John Rynards
Teresa Nelson
} copied due to the attached memo



EPA

United States
Environmental Protection
Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

Official Business
Penalty for Private Use
$300

DER
JAN 22
BAQM

Mr. C.H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 1 1987

MEMORANDUM

SUBJECT: Improving New Source Review (NSR) Implementation

FROM: J. Craig Potter
Assistant Administrator
for Air and Radiation (ANR-443)

TO: Regional Administrator
Regions I-X

On June 27, 1986, I established a special task force to address growing concerns about the consistency and certainty of permits issued under the Clean Air Act's prevention of significant deterioration and nonattainment area NSR programs. Based on the findings and recommendations of the task force, I am today establishing certain program initiatives designed to improve the timeliness, certainty, and effectiveness of these programs.

A great deal of effort will be required to overcome the problems which have developed, but it is my belief that these problems, with your full cooperation and assistance, can be resolved so that these essential air management programs can fulfill their intended roles. Therefore, I urge each of you to provide the maximum priority and resource commitments available to the task.

The outstanding concern we now face in these programs is inadequate implementation. The Office of Air and Radiation intends to apply its resource commitments so as to enhance its ability to provide technical support and guidance, training, workshops, auditing, and enforcement support to the Regions and delegated programs. The Regional Offices must make a corresponding resource commitment for these efforts to succeed. Accordingly, I am requesting that you initiate a self-evaluation of current NSR activities and, to the extent necessary, refocus Regional attention on these programs in an effort to improve and enhance NSR program implementation.

To ensure that we maintain the flexibility to make this effort a dynamic one, capable of sensing and adjusting to the needs of the program, I intend to establish an informal group of our colleagues to report to me on progress in implementing the initiatives discussed below. The mission of the group is to provide the feedback necessary to maximize the effectiveness of NSR implementation and to make NSR reflective of air program needs.

The following is a list of the specific program initiatives I am hereby instituting to bring about improvements in NSR implementation:

Tracking Permit Actions--Initially and until such time as permit quality can be assured, I am requiring that each Regional Office establish (if not already in place) a program to ensure a timely and comprehensive review of all State and local agency-issued major source permits and certain minor source permits. Implementation of the program will be made part of the Regional Office Management System and will require the "real time" exchange and review of information between the Regional Office and the State and local agencies when a key milestone is reached during the permitting process.

Effective communication between the permitting agency and the Regional Office is essential to improving program implementation. Therefore, the Regional Offices will need to ensure that State and local permitting agencies follow certain notification procedures such as:

- Notify the Regional Office and other affected parties (e.g., the Federal land manager if Class I areas are impacted), within a reasonable time, of the receipt of a new major source permit application. This can take the form of a complete copy of the application itself or a brief description of the proposed project. Notification can be made as each application is received or the information may be submitted to the Regional Office in a periodic report.

- Submit to the Regional Office a complete public notification package at the beginning of the public notice period. The package must contain the public notice language, the proposed permit, and a technical analysis demonstrating how the proposed project complies with the technical review requirements of the regulations [e.g., best available control technology (BACT) or lowest achievable emission rate (LAER), air quality impacts or offsets].

- Submit to the Regional Office a copy of the final preconstruction permit when issued, including a response to any appropriate comments submitted during the public comment period.

- Submit to the Regional Office a copy of the operating permit when issued.

Likewise, when informed of a permit action, the Regional Office is responsible for the timely review of the information, specifically:

- Screen incoming information on permit applications for potential issues or concerns and, if warranted, communicate them to the permitting agency.

- Perform a timely and comprehensive review of the public notice package and, if warranted, provide comment during the public comment period. To aid in this task, I have directed the Office of Air Quality

Planning and Standards (OAQPS) to start work on the development of a permit review checklist for use by the Regional Office during the public comment period. The checklist will also be useful to State and local agencies as a tool for self-audit and to understand what the Environmental Protection Agency (EPA) emphasizes when reviewing a proposed permit.

- Review any response to comments and the final permit to ensure that any outstanding concerns have been resolved satisfactorily.

- Review the permit to operate to ensure that it is consistent with the preconstruction permit.

- Take prompt and appropriate action to deter the issuance or use of permits which fail to meet minimal Federal requirements. I have directed OAQPS to work with the Office of General Counsel and the Office of Enforcement and Compliance Monitoring to develop guidance for the Regional Offices on the appropriate legal mechanisms and procedures for handling deficient permit actions.

- To the extent practicable, prior to permit issuance, review potential minor permit actions which exempt an otherwise major source or modification from a major review (e.g.,"synthetic" minor sources, major sources netting out of review, and 99.9 or 249.9 tons per year sources).

The most critical element of these initiatives is the Regional Office review of proposed permit actions during the public comment period. The FY 1985 national air audit showed widespread serious permit deficiencies, many of which could have been corrected without interfering with State and local agency processing if dealt with by EPA during the public comment period. By uniformly reviewing all major source permit actions during the comment period, EPA is able to address deficient reviews or permits before the final permit is issued. This not only promotes more consistency in the permitting process among the States, but also provides the highest degree of certainty to the applicant that the permit will not be challenged by EPA at a later date. Moreover, if the permit is not reviewed and commented on prior to issuance, the possibility of successfully challenging the action is greatly diminished, as is the opportunity to improve the enforceability of the permit.

BACT Determinations--Of all the NSR processes, BACT (and LAER) determinations are perhaps the most misunderstood and the least correctly applied. The BACT alternatives, if presented by the applicant at all, are often poorly documented or biased to achieve the decision the applicant desires.

To bring consistency to the BACT process, I have authorized OAQPS to proceed with developing specific guidance on the use of the "top-down" approach to BACT. The first step in this approach is to determine, for the emission source in question, the most stringent control available for a similar or identical source or source category. If it can be shown that this level of control is technically or economically infeasible for

the source 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. Thus, the "top-down" approach shifts the burden of proof to the applicant to justify why the proposed source is unable to apply the best technology available. It also differs from other processes in that it requires the applicant to analyze a control technology only if the applicant opposes that level of control; the other processes required a full analysis of all possible types and levels of control above the baseline case.

The "top-down" approach is essentially already required for municipal waste combustors pursuant to the June 22, 1987, Administrator's remand to Region IX of the H-Power BACT decision and the OAQPS June 26, 1987, "Operational Guidance on Control Technology for New and Modified Municipal Waste Combustors (MWC's)." It is also currently being successfully implemented by many permitting agencies and some of the Regional Offices for all sources. I have therefore determined that it should be adopted across the board.

In the interim, while OAQPS develops specific guidance on the "top-down" process, I am requesting the Regional Office to apply it to their BACT determinations and to strongly encourage State and local agencies to do likewise. Moreover, when a State agency proposes as BACT a level of control that appears to be inconsistent with the "top-down" concept, such as failure to adequately consider the more stringent control options, the Regional Office is to provide comment to that agency. A final BACT determination which still fails to reflect adequate consideration of the factors that would have been relevant using a "top-down" type of analysis shall be considered deficient by EPA.

Training—No formal training workshops specific to NSR have been held since 1980. Many State and local agencies, as well as the Regional Offices, have experienced a high rate of NSR personnel turnover since then. Many of the basic problems that are occurring in NSR implementation can be traced to the lack of comprehensive, continuing training for new Regional Office and State agency personnel.

To rectify this situation, in FY 1988, OAQPS will work on developing materials for a comprehensive training program in the form of Regional workshops to be conducted in FY 1989.

Commencing in FY 1989, biannual Headquarters-sponsored NSR workshops will be conducted at each Regional Office with State and local agencies attendance encouraged. Workshop topics will cover the NSR rules and policy, BACT and LAER determinations, effective permit writing, how to review a proposed permit and audit a permit file, and other program areas as needed. Appropriately trained Regional staff are to then hold these workshops at their respective State agencies. The NSR experts from Headquarters or NSR experts from other Regions will be available to assist.

In addition, Regional Offices should reserve the funds necessary to send at least one EPA staff representative to the NSR workshops (for EPA only) held semiannually at Denver, Colorado (February), and Southern Pines, North Carolina (July). Attendance at these workshops plays a vital role in keeping the Regions up to date on program implementation and new and emerging policy.

Policy and Guidance--Continuous litigation and regulatory changes have combined with the complexity of NSR rules to create a log jam of the policy and guidance needed to help interpret and effectively apply these rules. Therefore, I am directing that in FY 1989 OAQPS dedicate at least one staff person to ensuring a timely response to policy and guidance requests. In the interim, I intend to continue OAQPS's efforts to compile and organize NSR reference and guidance materials, such as the NSR electronic bulletin board.

I realize that the initiatives discussed above constitute only the first steps of a continuing process to address concerns and needs relating to NSR program implementation. In recognition of the possible need to maintain flexibility in managing and improving the NSR process I will, as indicated earlier, establish a group to monitor our progress under this new policy. The group will be comprised of representatives from EPA Headquarters and Regional Offices and we will consult with State and local agency officials as part of our effort to obtain timely feedback as we implement these initiatives.

Additional specific guidance on improvements in the program areas discussed above will be issued in the near future. In the meantime, each Regional Office is directed to work closely with its State and local agencies to ensure that all aspects of the NSR permit programs comply with all applicable State and Federal program requirements.

Your comments and suggestions are welcome. Please direct them to Gary McCutchen, Chief, New Source Review Section, MD-15, Research Triangle Park, North Carolina 27711 (FTS 629-5592).

cc: Air Division Directors, Regions I-X

Jill

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. T. P. Crane, Vice President
Operations Manager
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533

December 21, 1987

Enclosed is permit No. AC 17-140962/PSD-FL-126, for Champion International Corporation to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

Copy furnished to:

E. Middleswart, NW Dist.
D. Smith, P.E.
D. Arceneaux, CIC
W. Aronson, EPA
B. Pittman, Esq.

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) Clair Fancy	Initial	
	Date	
2.	Initial	
	Date	
3.	Initial	
	Date	
4.	Initial	
	Date	

REMARKS:

DER

DEC 18 1987

BAQM

CC: Waddington, NW Dist
D. Smith, PE
D. Arceneaux, CIC
W. Aronov - EPA
B. Pittman - Eng.

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM: Bruce Mitman

DATE

PHONE

P 274 007 618

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. T.P. Crane, V.P. Champion International Corp.	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 12/21/87 Permit: AC 17-140962 Federal: PSD-FL-126	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

PS Form 3811, July 1983 447-845 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. [X] Show to whom, date and address of delivery
2. [ ] Restricted Delivery

3. Article Addressed to: T.P. Crane, V.P. Operations Manager Champion International Corporation P.O. Box 87 Cantonment, FL 32533

4. Type of Service: [ ] Registered [ ] Insured [X] Certified [ ] COD [ ] Express Mail

Article Number: P 274 007 618

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee: X

6. Signature — Agent: X Peggy Adams

7. Date of Delivery: 12-28-87

8. Addressee's Address (ONLY if requested and fee paid):

Final Determination

Champion International Corporation
Cantonment, Escambia County, Florida

Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

December 16, 1987

Final Determination

Champion's application to install a skid mounted temporary gas fired boiler at their existing facility in Cantonment, Escambia County, Florida, has been reviewed by the Bureau of Air Quality Management. Public Notice of the Department's Intent to Issue the permit was published in the Pensacola News Journal on November 11, 1987.

A comment was received from U.S. EPA in response to the Public Notice, in which EPA recommends the consideration of a top-down Best Available Control Technology (BACT) analysis by the applicant (see attachment 4).

The Department does not feel that this particular project of a rental gas fired boiler, to be in operation for a period of two years needs a top-down BACT analysis, which is not yet required by EPA.

The final action of the Department will be to issue the permit as proposed in the preliminary determination.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE:
Champion International Corp.
Post Office Box 87
Cantonment, FL 32533

Permit Number:AC 17-140962
Expiration Date: June 1, 1988
County: Escambia
Latitude/Longitude: 30° 36' 19"N
87° 19' 13"W
Project: Gas Fired Package Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a steam generating facility consisting of a temporary rental gas-fired skid mounted package boiler, at Champion's plant site in Escambia County, Florida. The boiler will have a maximum heat input capacity of 195 MMBtu/hr producing 125,000 lbs/hr steam at 600 psig.

Construction will be in accordance with the permit application and plans, documents and reference material submitted unless otherwise stated in the General and Specific Conditions herein.

This project's federal permit number: PSD-FL-126

Attachments:

1. Champion's Application package dated October 22, 1987.
2. Additional information submitted by Champion, dated October 29, 1987.
3. Champion's letter on boiler details dated, November 5, 1987.
4. EPA's comments dated December 3, 1987.

PERMITTEE:
Champion International Corp.

Permit Number: AC 17-140962
Expiration Date: June 1, 1988

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute a waiver of 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.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement 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.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring 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.

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 notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

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 revocation of this permit.

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 arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

(x) Determination of Best Available Control Technology (BACT)
(x) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The package boiler may operate continuously (8760 hrs/yr) for a maximum period of two years.

2. Only natural gas shall be fired into the boiler. The maximum heat input shall not exceed 195 MMBtu/hr, reflecting a steam generation rate of 125,000 lbs/hr at 600 psig.

3. The maximum allowable emission shall not exceed the following quantities:

SPECIFIC CONDITIONS:

a) NOx - 0.2 lb/MMBtu heat input
- 39 lbs/hr
- 147 tons/yr

b) CO - 47 lbs/hr
- 205 tons/yr

c) Visible Emissions (VE) - 5% opacity

Note: For inventory purposes only the emissions of SO_2, PM, and VOC are tabulated below:

Pollutant	lb/MMBtu	lb/hr	TPY (tons per year)
SO_2	0.0006	0.12	1
PM	0.005	1	4
VOC	0.003	1	4

Good combustion practices shall be observed as control measures for PM, SO_2, and VOC.

4. Initial and annual compliance tests shall be conducted as follows:

a) EPA Method 7 for NOx
b) EPA Method 10 for CO
c) DER Method 9 for VE

Other DER approved methods may be used in place of the above tests, only after prior approval from the Department.

5. DER's district office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the district office with 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department must be notified in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (Rule 17-2, FAC)

PERMITTEE:
Champion International Corp.

Permit Number: AC 17-140962
Expiration Date: June 1, 1988

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (Rule 17-2 and 17-4, FAC)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (Rule 17-4, FAC)

6. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to DER's District office.

Issued this 17 day of Dec, 1987

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann

Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination
Champion International Corporation
Escambia County

The applicant plans to install a 195 MMBtu/hr natural gas fired boiler at their facility in Cantonment, Florida. The boiler, a skid mounted rental package unit, will be used only temporarily until existing boilers can be repaired or replaced to supply the necessary steam load. The temporary boiler is scheduled to operate 8,760 hours per year.

A BACT determination is required for particulates and sulfur dioxide as set forth in the Florida Administrative Code Rule 17-2.600 (6) - Emissions Limiting and Performance Standards. In addition, the Department has performed a BACT determination for nitrogen oxides (NOx) and carbon monoxide (CO) based on the assumption that the emissions increase of NOx and CO could be greater than the PSD significant rate of 40 and 100 tons per year respectively. The Department which is presently awaiting information that would indicate if BACT for NOx and CO would indeed apply, has decided to go ahead with making a determination of BACT for NOx and CO to expedite the processing of the permit.

BACT Determination Request by the Applicant:

Particulate, sulfur dioxide, nitrogen oxides and carbon monoxide emissions to be controlled by the firing of natural gas.

Date of Receipt of a BACT Application:

October 22, 1987

Review Group Members:

The determination was based upon comments received from the Stationary Source Control Section.

BACT Determined by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas.

Visible Emissions Not to exceed 5% opacity.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

Nitrogen oxides emissions shall not exceed 0.20 lb/MMBtu heat input.

Carbon monoxide emissions shall not exceed 46.8 pounds per hour.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern in that most of the fuel sulfur becomes SO_2 and particulate emissions from fuel burning are related to the sulfur content. The Department agrees with the applicant's proposal that the firing of natural gas is BACT for particulates and SO_2.

The emission rate of nitrogen oxides proposed by the applicant is equivalent to 0.20 pounds per million Btu heat input. This proposed emission rate is equal to the New Source Performance Standard (NSPS) for natural gas steam generating units with heat input capacities greater than 100 million Btu/hr and maximum design heat release rates greater than 70,000 Btu/hr-ft^3. In addition to meeting the NSPS for these steam generating units, a review of other BACT determinations for natural gas fired boilers indicates that the proposed emission level for both nitrogen oxides and carbon monoxide is consistent with several of the determinations on record. In accordance with this criteria and the temporary nature of this installation, the applicant's proposed NOx and CO emission rates are justified as being BACT for this source.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E. BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Recommended by:

C. H. Fancy, P.E.
Deputy Bureau Chief, BAQM

12/17/87
Date

Approved by:

Dale Twachtmann, Secretary

17 Dec 87
Date

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

TO: Dale Twachtmann

THRU: Howard Rhodes

FROM: Clair Fancy

DATE: December 16, 1987

SUBJ: Approval of Champion International Cooperation
State Construction Permit Number: AC 17-140962
Federal PSD Number: PSD-FL-126

Attached for your approval and signature is a permit for the above mentioned company to install a skid mounted temporary gas fired boiler at their existing facility in Cantonment, Escambia County, Florida. Comments were received during the public notice period.

Day 90 after which these permits will be issued by default is February 25, 1988.

The Bureau recommends approval and signature.

CHF/MJ/s

attachment

RECEIVED
DEC 17 1987
Office of the Secretary

DER
DEC 17 1987
BAQM

PM
2 Dec 1987
Atlanta, GA

File Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

DEC - 3 1987

4APT/APB-am

Margaret V. Janes, Planner
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Champion International Corporation (PSD-FL-126)

Dear Ms. Janes:

This is to acknowledge receipt of the permit application for the above-referenced source. After reviewing the application, we have one comment to offer.

For your information, as a result of the North County Resource Recovery PSD remand, source applicants must now consider unregulated pollutants (i.e., air toxics) which may be of concern to the public when performing a best available control technology (BACT) determination for regulated pollutants. For gas fired boilers, the associated air toxics would include formaldehyde and polycyclic organic matter (POM).

In addition, EPA will soon be requiring the "top-down" approach with regard to future BACT determinations. As you may know, this approach requires an applicant to first evaluate the most stringent method of control taking into consideration the control of unregulated air toxics. If the applicant is able to prove that such control is technically and/or economically infeasible, the next most stringent method of control is evaluated and so on. Therefore, we suggest that Champion consider performing a "top down" BACT determination taking into account the two associated unregulated air pollutants.

Please forward a copy of the preliminary determination and draft permit upon issuance. If you have any additional comment or information, please contact me or Gary Ng of my staff at (404) 347-2864.

Sincerely yours,

Bruce P. Miller

Bruce P. Miller, Chief
Air Programs Branch
Air, Pesticides, and Toxics
Management Division

DER
DEC 7 1987
BAQM

Copied: CHF/BT
Pradeep Raval
Tom Rogers

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

AIR-4

12.9.87

~~CHF~~
~~BT~~ > FYI

(i)

U.S. OFFICIAL MAIL
ATLANTA DEC-2'87 GA
PENALTY FOR PRIVATE USE $300
U.S. METER 6250488
U.S. POSTAGE 0.22

Ms. Margaret V. Janes, Planner
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

PM
13 Nov. 1987
Cantonment, FL
CF: P-592-826-613

File Copy

Champion
Champion International Corporation

November 13, 1987

Mr. William Thomas
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

The Notice of Proposed Agency Intent to issue a permit to install a skid mounted temporary gas fired package boiler at Champion's Pensacola Mill was published in the Pensacola News Journal on November 11, 1987. Attached is the required proof of publication.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/hs

Attachment

DER
NOV 16 1987
BAQM

cc: Mr. T. W. Moody, P.E.
Special Programs Supervisor
State of Florida
Department of Environmental Regulation
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Copied: CHF/BT
Pradeep Raval
Tom Rogers
Wayne Aronson, EPA

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087

CERTIFIED

P-592 826 613

MAIL

Champion
Champion International Corporation

Mr. William Thomas
Florida Department of Environmental Reg
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

PENSACOLA
News Journal

PUBLISHED DAILY
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

State of Florida,
County of Escambia.

Before the undersigned authority personally appeared J. Diane Deal

who on oath says that she is Legal Advertising Supervisor of the Pensacola News Journal, a daily newspaper published at Pensacola in Escambia County, Florida; with general circulation in Escambia, Santa Rosa, Okaloosa and Walton Counties that the attached copy of advertisement, being a NOTICE in the matter of

Intent

_____ in the _____ Court,

was published in said newspaper in the issues of

Nov. 11, 1987

Affiant further say that the said The Pensacola News Journal is a newspaper published at Pensacola, in said Escambia County, Florida, and that the said newspaper has heretofore been continuously published in said Escambia County, Florida, each day and has been entered as second class mail matter at the post office in Pensacola, in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

J. Diane Deal

Sworn to and subscribed before me this 11th day of Nov. A.D., 1987

Sally J. Fenton
NOTARY PUBLIC.

My Commission Expires 10/26/91

State of Florida
Department of
Regulation
Notice of Intent
AO 33-27

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. For a maximum of two years, the 195 MMBtu/hr boiler will allow Champion to operate through the winter months and repair existing boilers while on down time. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administration hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application 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:

Dept. of Environmental
Regulation
Bureau of Air
Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-
2400

Dept. of Environmental
Regulation
Northwest District
160 Governmental Center
Pensacola, Florida
32501-5794

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.

LEGAL NO. 33654 1T
NOV. 11, 1987

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

November 9, 1987

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. T. P. Crane, Vice President
Operations Manager
Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533

Dear Mr. Crane:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. For a maximum of two years, the 195 MMBtu/hr boiler will allow Champion to operate through the winter months and repair existing boilers while on down time.

Please submit, in writing, any comments which you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

Willard Hanks

for C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/bm

Attachments

cc: E. Middleswart, NW Dist.
D. Smith, P.E.
D. Arceneaux, CIC
W. Aronson, EPA
B. Pittman, Esq.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533

DER File No. AC 17-140962
Federal No. PSD-FL-126

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. For a maximum of two years, the 195 MMBtu/hr boiler will allow Champion to operate through the winter months and repair existing boilers while on down time. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Champion International Corporation, applied on October 23, 1987, to the Department of Environmental Regulation for a construction permit.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (FAC) Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit was needed for the proposed work.

Pursuant to Section 403.815, F.S., and FAC Rule 17-103.150, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of

the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. Petitions must comply with the requirement of FAC Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S., concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

E. Middleswart, NW Dist.
D. Smith, P.E.
D. Arceneaux, CIC
W. Aronson, EPA
B. Pittman, Esq.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 9 Nov. 87.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Judy A. Rogers
Clerk

9 Nov. 87
Date

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. For a maximum of two years, the 195 MMBtu/hr boiler will allow Champion to operate through the winter months and repair existing boilers while on down time. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application 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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

Technical Evaluation
and
Preliminary Determination

Champion International Corporation
Cantonment, Escambia County, Florida

Gas Fired Package Boiler
Permit No. AC 17-140962
PSD-FL-126

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

November 6, 1987

I. Application

A. Applicant

Champion International Corporation
Post Office Box 87
Cantonment, Florida 32533

B. Project and Location

The applicant proposes to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's plant site in Escambia County, Florida. The 195 MMBtu/hr boiler will allow Champion to operate through winter months and repair down time on existing boilers, for a maximum period of two years. The proposed project will emit the pollutants nitrogen oxides (NOx), sulfur dioxide (SO_2), particulate matter (PM), carbon monoxide (CO) and volatile organic compounds (VOC).

The UTM coordinates of this facility are Zone 16, 469.3 km East and 3385.72 km North.

C. Sources Reviewed

The sources reviewed in this technical evaluation will be the proposed temporary boiler and Boiler Nos. 1, 3, and 4 which have been shut down.

Champion applied for a construction permit for the proposed project on October 29, 1987, and the application was deemed complete on November 6, 1987.

D. Facility Category

Champion's facility in Cantonment is classified in accordance with the Standard Industrial Classification (SIC) Code as Major Group 26, Paper and Allied Products; Group No. 262, Paper Mills; Industry No. 2621, Paper Mills.

The proposed project will be a major modification to a major facility, as defined by Chapter 17-2 of the Florida Administrative Code (FAC).

II. Project Description

The applicant proposes to operate a rental skid mounted temporary gas fired boiler to supply 125,000 lbs/hr steam at 600 psig. Temporary gas, water, and steam lines will be run to the boiler. A rental stack will also be installed. The maximum heat input capacity of the boiler will be 195 MMBtu/hr.

This boiler is needed due to less than design steam production from the existing No. 1 and 2 Power Boilers. The package boiler will allow Champion to operate through winter months and repair down time on existing boilers. The temporary boiler is anticipated to be needed for a maximum of two years.

III. Rule Applicability

The proposed project will result in emissions of NOx, SO_2, PM, CO and VOCs. It is subject to preconstruction review in accordance with Chapter 403 of the Florida Statutes and Chapters 17-2 and 17-4 of the Florida Administrative Code (FAC).

The proposed project will be located in Escambia County, an area designated as unclassifiable for PM, but attainment for NOx, SO_2, CO and VOCs, in accordance with Rules 17-2.420 and 17-2.430, FAC.

Although Boiler Nos. 1, 3, and 4 have been considered in this review, emission credits cannot be granted for their shut-down since operations were ceased prior to the contemporaneous period of this application, in accordance with Rule 17-2.500(2), FAC.

Therefore, the proposed project will be a major modification to a major facility and will be subject to a Prevention of Significant Deterioration (PSD) Review in accordance with Rule 17-2.500(2)(d)4, FAC.

However, since the pollutant emitting period will not exceed two years, the proposed project will be exempt from the requirements of Rules 17-2.500(5)(d), (e), (f), and (g), FAC, in accordance with Rule 17-2.500(3)(c), FAC.

The proposed project will not be subject to New Source Performance Standards in accordance with 40 CFR 60 Subpart Db - Standards of Performance for Industrial Steam Generating Units, because the rental boiler was built before 1984, the NSPS applicability date.

The applicable emission limiting standards will be determined by the Best Available Control Technology (BACT) for PM, SO_2, NOx, CO, and visible emissions (VE) in accordance with Rule 17-2.630, FAC.

The proposed project will be required to show compliance in accordance with Rule 17-2.700, FAC, with the emission limiting standards for:

a) NOx, by EPA Method 7.
b) CO, by EPA Method 10.
c) VE, by DER Method 9.

Note: Other DER Approved Methods may be used with prior Departmental approval.

IV. Emission Limitations

The proposed project will be in operation no longer than two years, at 8760 hrs/yr, and will be limited by the attached BACT determination. Emission estimates are as follows:

Pollutant	lb/MMBtu	lb/hr	TPY
NOx	0.2	39	147
CO	0.24	47	205
SO_2	0.0006	0.12	1
PM	0.005	1	4
VOC	0.003	1	4

Visible emissions will be limited to 5% opacity.

Note: Except for the NOx NSPS standard based estimates, and the CO manufacturer's estimates, the other criteria pollutant emission estimates are based on AP-42.

V. Air Quality Analysis

A. Introduction

Champion proposes to temporarily lease and operate a gas-fired package boiler. The duration of operation is not to exceed two years. The operation of this boiler will have the potential to emit NOx and CO in PSD significant quantities. Both of these pollutants are, thus, subject to the requirements of the PSD regulations as defined in Rule 17-2.500, of the Florida Administrative Code.

An exemption for temporary sources from several of the specific requirements is contained in Rule 17-2.500(3)(c), FAC. This exemption applies to the preconstruction review requirements contained in paragraphs 17-2.500(5)(d), (e), (f), and (g), FAC. It is applicable only if the duration of emissions would not exceed two years and the applicant has provided the Department with reasonable assurance that the increased emissions will not cause or contribute to a violation of an ambient air quality standard or have a significant impact on any Class I area or area where a PSD increment is violated.

The preconstruction review requirements applicable to Champion include:

- A Best Available Control Technology (BACT) analysis, and;

- An Ambient Air Quality Standards (AAQS) analysis.

Based on these analyses, the Department has reasonable assurance that the proposed project as described in this permit and subject to the conditions, of approval proposed herein, will not cause or contribute to a violation of an ambient air quality standard. A discussion of the required AAQS analysis follows.

B. Ambient Air Quality Standards Analysis

In order to satisfy the reasonable assurance requirement, the applicant submitted the ambient air quality analysis previously completed at the Champion (formerly St. Regis) facility for the construction of the No. 4 Bark Boiler. A series of PSD permits have been associated with this bark boiler. The permit PSD-FL-041 addressed the original construction of the No. 4 Bark Boiler; the permit PSD-FL-066 addressed allowance for coal burning in the No. 3 and No. 4 boilers; and, the permit PSD-FL-070 addressed an increase in sulfur content of the coal used in the boilers. The air quality analyses for these permits included dispersion modeling for both NOx and CO. The modeling showed that the maximum ambient air concentrations expected due to the increased emissions from the new No. 4 boiler in conjunction with all other sources of NO_2 and CO were much less than the air quality standards for these pollutants. Included in these other sources were emissions from power boiler Nos. 1, 3, and 4 which have been subsequently shut down. The emission decreases from these power boilers offsets much, if not all, of the currently proposed increase. There have been no significant, new sources of NOx or CO in the area surrounding the Champion facility and the background levels have not significantly changed.

The Department, in addition, completed a screening analysis using the PTPLU dispersion model. The emissions increase associated with the maximum operation of the proposed temporary boiler was input to the model. The results indicate that the emissions from the temporary boiler, in and of itself, will result in minimal ambient impacts. The maximum one-hour CO concentration is predicted to be less than 0.05 mg/m^3, while the maximum one-hour NO_2 concentration is 30 ug/m^3. These concentration increases can be compared to the ambient air quality standards for CO and NO_2.

Pollutant	Florida AAQS
CO	
1-hour	40 mg/m^3
8-hour	10 mg/m^3
NO_2	
annual	100 ug/m^3

Although the predicted concentrations are applicable to a one-hour average, a reasonable extrapolation of these results to the longer averaging times associated with the standards produces very small concentration levels.

The pollutants subject to PSD review, NOx and CO, do not have maximum allowable increases (increments) defined for them. As such, an increment analysis is not applicable. Also, the Champion facility is not located within 100 km of any Class I area, therefore, no analysis is necessary.

In summary, the emissions increase of NOx and CO from the temporary boiler will have minimal air quality impacts. The Department is reasonably assured that the operation of the temporary boiler will not cause or contribute to a violation of an ambient air quality standard.

VI. Conclusion

Based on the information provided by Champion, the Department has reasonable assurance that the proposed temporary gas-fired boiler, as described in this evaluation, and subject the conditions proposed herein, will not cause or contribute to a violation of an ambient air quality standard or PSD increment, or any other provisions of Chapter 17-2, FAC.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE:
Champion International Corp.
Post Office Box 87
Cantonment, FL 32533

Permit Number:AC 17-140962
Expiration Date: June 1, 1988
County: Escambia
Latitude/Longitude: 30° 36' 19"N
87° 19' 13"W
Project: Gas Fired Package Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a steam generating facility consisting of a temporary rental gas-fired skid mounted package boiler, at Champion's plant site in Escambia County, Florida. The boiler will have a maximum heat input capacity of 195 MMBtu/hr producing 125,000 lbs/hr steam at 600 psig.

Construction will be in accordance with the permit application and plans, documents and reference material submitted unless otherwise stated in the General and Specific Conditions herein.

This project's federal permit number: PSD-FL-126

Attachments:

1. Champion's Application package dated October 22, 1987.
2. Additional information submitted by Champion, dated October 29, 1987.
3. Champion's letter on boiler details dated, November 5, 1987.

PERMITTEE:
Champion International Corp.

Permit Number: AC 17-140962
Expiration Date: June 1, 1988

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute a waiver of 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.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement 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.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring 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.

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 notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

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 revocation of this permit.

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 arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

(x) Determination of Best Available Control Technology (BACT)
(x) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The package boiler may operate continuously (8760 hrs/yr) for a maximum period of two years.

2. Only natural gas shall be fired into the boiler. The maximum heat input shall not exceed 195 MMBtu/hr, reflecting a steam generation rate of 125,000 lbs/hr at 600 psig.

3. The maximum allowable emission shall not exceed the following quantities:

SPECIFIC CONDITIONS:

a) NOx - 0.2 lb/MMBtu heat input
- 39 lbs/hr
- 147 tons/yr

b) CO - 47 lbs/hr
- 205 tons/yr

c) Visible Emissions (VE) - 5% opacity

Note: For inventory purposes only the emissions of SO_2, PM, and VOC are tabulated below:

Pollutant	lb/MMBtu	lb/hr	TPY (tons per year)
SO_2	0.0006	0.12	1
PM	0.005	1	4
VOC	0.003	1	4

Good combustion practices shall be observed as control measures for PM, SO_2, and VOC.

4. Initial and annual compliance tests shall be conducted as follows:

a) EPA Method 7 for NOx
b) EPA Method 10 for CO
c) DER Method 9 for VE

Other DER approved methods may be used in place of the above tests, only after prior approval from the Department.

5. DER's district office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the district office with 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department must be notified in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (Rule 17-2, FAC)

PERMITTEE:
Champion International Corp.

Permit Number: AC 17-140962
Expiration Date: June 1, 1988

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (Rule 17-2 and 17-4, FAC)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (Rule 17-4, FAC)

6. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to DER's District office.

Issued this_____day of_____, 19___

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____

Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination
Champion International Corporation
Escambia County

The applicant plans to install a 195 MMBtu/hr natural gas fired boiler at their facility in Cantonment, Florida. The boiler, a skid mounted rental package unit, will be used only temporarily until existing boilers can be repaired or replaced to supply the necessary steam load. The temporary boiler is scheduled to operate 8,760 hours per year.

A BACT determination is required for particulates and sulfur dioxide as set forth in the Florida Administrative Code Rule 17-2.600 (6) - Emissions Limiting and Performance Standards. In addition, the Department has performed a BACT determination for nitrogen oxides (NOx) and carbon monoxide (CO) based on the assumption that the emissions increase of NOx and CO could be greater than the PSD significant rate of 40 and 100 tons per year respectively. The Department which is presently awaiting information that would indicate if BACT for NOx and CO would indeed apply, has decided to go ahead with making a determination of BACT for NOx and CO to expedite the processing of the permit.

BACT Determination Request by the Applicant:

Particulate, sulfur dioxide, nitrogen oxides and carbon monoxide emissions to be controlled by the firing of natural gas.

Date of Receipt of a BACT Application:

October 22, 1987

Review Group Members:

The determination was based upon comments received from the Stationary Source Control Section.

BACT Determined by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas.

Visible Emissions Not to exceed 5% opacity.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

Nitrogen oxides emissions shall not exceed 0.20 lb/MMBtu heat input.

Carbon monoxide emissions shall not exceed 46.8 pounds per hour.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern in that most of the fuel sulfur becomes SO_2 and particulate emissions from fuel burning are related to the sulfur content. The Department agrees with the applicant's proposal that the firing of natural gas is BACT for particulates and SO_2.

The emission rate of nitrogen oxides proposed by the applicant is equivalent to 0.20 pounds per million Btu heat input. This proposed emission rate is equal to the New Source Performance Standard (NSPS) for natural gas steam generating units with heat input capacities greater than 100 million Btu/hr and maximum design heat release rates greater than 70,000 Btu/hr-ft^3. In addition to meeting the NSPS for these steam generating units, a review of other BACT determinations for natural gas fired boilers indicates that the proposed emission level for both nitrogen oxides and carbon monoxide is consistent with several of the determinations on record. In accordance with this criteria and the temporary nature of this installation, the applicant's proposed NOx and CO emission rates are justified as being BACT for this source.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E. BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Recommended by:

_____
C. H. Fancy, P.E.
Deputy Bureau Chief, BAQM

_____
Date

Approved by:

_____
Dale Twachtmann, Secretary

_____
Date

P 274 007 656

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to T.P. Crane, V.P, Ops. Mgr. Champion International Corp.	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 11/09187 Permit: AC 17-140962	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery
2. ☐ Restricted Delivery

3. Article Addressed to: T.P. Crane, V.P. Operations Manager, Champion International Corp. P.O. Box 87, Cantonment, FL 32533

4. Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail — Article Number: P 274 007 656

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee: X

6. Signature - Agent: X Betty Adams

7. Date of Delivery: 11/10/87

8. Addressee's Address (ONLY if requested and fee paid):

DOMESTIC RETURN RECEIPT

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to install a skid mounted temporary gas fired package boiler, generating 125,000 lbs/hr steam at 600 psig, at Champion's existing facility located in Cantonment, Escambia County, Florida. For a maximum of two years, the 195 MMBtu/hr boiler will allow Champion to operate through the winter months and repair existing boilers while on down time. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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The application 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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.

CORRECTED: NOVEMBER 10, 1987

P 274 007 657

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to T.P. Crane, V.P. Champion International Corp.	
Street and No. P.O. Box 87	
P.O., State and ZIP Code Cantonment, FL 32533	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 11/10/87 Permit: AC 17-140962	

PS Form 3800, June 1985 * U.S.G.P.O. 1985-480-794

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. XX Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to: T.P. Crane, V.P.
Champion International Corp.
P.O. Box 87
Cantonment, FL 32533

CANTONMENT FL 32533

4. Type of Service:
☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail

Article Number
P 274 007 657

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Emery Worldwide Fee Copy
0302716986
Mailed 11/5/87

Champion
Champion International Corporation

DER
NOV 6 1987
BAQM

November 5, 2987

Mr. Pradeep Raval
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Raval:

Enclosed are two documents which we discusssed by telephone today. First is the original ASME Form P3 showing that the rental package boiler was built in 1964. The current owner of the boiler, Holman Boiler Works, Inc., replaced the tubes in the boiler in 1982. This was the last major work done on the boiler. The burner supplier, Coen, is currently rebuilding the burner to meet the .2 lb/MM Btu NOx requirement.

The second document is a page from a performance guarantee for a boiler which our Quinnesec, Michigan mill is installing as part of an expansion at that facility. This performance guarantee is for a low NOx burner which should have the same CO emissions as the standard burner which will be installed in a package boiler we are renting. The guarantee showed a CO value of 175 parts/million which for that particular boiler at its flow rate calculates as .22 lb CO/MM Btu heat input. Champion is in the process of getting a guarantee from Coen for the burner that will be installed in the package boiler we are renting. We expect that number to be .24 lb/MM Btu heat input, which should be the value in the construction permit.

If there are any questions concerning this information, please contact me at the mill.

Sincerely,

David T. Arceneaux

DTA/hs

Attachments

cc: Mr. Thomas Moody - DER, Pensacola
Mr. William Thomas - DER, Tallahassee
CHF IBT
Copies: Pradeep Raval
Tom Rogers
Barry Andrews
} 11/6/87 MM

PULL
1

FORM OF PAYMENT *

CASH ☐ GBL CBL ☐ _____ FCCOD ☐

PPD ☐ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

0 3 0 2 7 6 9 8 6 3

UNITED STATES / CANADA

STANDARD SERVICES *

Same Day ☐ Other ☐
Next Morning ☐ Metro ☐
Second Morning ☐

INTERNATIONAL

STANDARD SERVICES *

Courier Express ☐ Business Documents ☐
Air Cargo Service ☐ Customs Clearance ☐
Air Economy Service ☐ Delivery ☐

E Shippers Emery Account Number: 99126059?

Date	Origin	Shipment Number
11/5/97	FNS	03027698G

From:

David Greenaun 904/968-2121
CHAMPION INTERNATIONAL
MUSCOGEE RD
CANTONMENT, FL.
Canada ☐ ☐
Customer's Reference Numbers
Zip 32533

To:

Mr. Pradeep Raval
Florida Dept. of Environmental Reg.
2600 Blair Stone Road
Tallahassee, FL
Hold at Airport ☐
Canada ☐ ☐
E Consignee's Emery Account No.
Zip 3 2 3 0 1

Saturday Delivery ☐
Tariff Dest. | Gateway
C.O.D. $
☐ C ☐ D ☐ E ☐ F ☐ G ☐ H
☐ A ☐ B

Description and Marks	Dimensions L	W	H	Pieces	Weight (in Lbs.)
Urgent Letter				1	

TODSR ☐ Haz Mat ☐ Edit ☐ A B C D E F G H I J K

1 2 3 4 5 6
7 8 9 0 1 2

Envelope 9X12 ☐ Pack 12X15 ☐

Shipper's Signature X

323011

Terms and Conditions on Back

International Charges: Free Domicile ☐ | Comm. Code

Third party Emery Account Number mandatory for Third party billing

E Third Party Emery Account No.

At Origin
Base Charge
At Destination
TOTAL

Intl. Customs Value | Intl. Insurance

Total Transportation Charges

Other Charges ☐ OC- $

Time Rec'd By Emery	Mo.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Multiple Shpts. / Drop Box
	Day	1	2	3	4	5	6	7	8	9	0	1	2	1 2 3 4 5 6
	24 Hour Time	1	0	1	2	0	2	1		00		15		7 8 9 0 1 2
		3	4	5	6	7	8	9		30		45		Over 32 →

Goods Rec'd At: Shippers Door ☐ Drop Box ☐ A
Emery Terminal ☐ Carrier Advance ☐ B

By: Emery Representative.

FORM P-3 MANUFACTURER'S DATA REPORT FOR WATER-TUBE BOILERS, SUPERHEATERS, WATERWALLS, AND ECONOMIZERS

As Required by the Provisions of the ASME Code Rules

1. Manufactured by WICKES BOILER COMPANY SAGINAW, MICHIGAN
(Name and address of manufacturer)

2. Manufactured for U.S. NAVY - U.S. NAVAL BASE GUANTANAMO BAY, CUBA
(Name and address of purchaser)

3. Identification BENT TUBE BOILER (Type of boiler, superheater, waterwall, economizer) Boiler No. 64020-1 (Mfrs. Serial No.) ASME-6030 2889 (Nat'l. Board No.) Year Built 1964

4. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules SECTION I

Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report: none
(Name of Part–Item number, manufacturer's name, and identifying stamp)

We certify the statement in this data report to be correct.

Date May 4, 19 64 Signed WICKES BOILER COMPANY (Manufacturer) By Ward E. Benna (Representative)

Certificate of Authorization Expires December 31, 19 64

CERTIFICATE OF SHOP INSPECTION

BOILER MADE BY WICKES BOILER COMPANY at SAGINAW, MICHIGAN

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of _____ and employed by HARTFORD STM. BLR. INSP. & INS. of HARTFORD, CONNECTICUT have inspected parts of this boiler referred to as data items 5a, 5b, 7a, 7b, 8a, 8b, 9a, 10, 11a, 11c, 11d and have examined manufacturer's partial data reports for items _____ and state that, to the best of my knowledge and belief, the manufacturer has constructed this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date May 6th 19 64

W. S. Carmichael (Inspector) Commissions NB. 1423 (Nat'l Board or State and No.)

We certify that the field assembly of all parts of this boiler conforms with the requirements of SECTION I of the ASME BOILER AND PRESSURE VESSEL CODE.

Date _____ 19 _____ Signed _____ (Assembler) By _____ (Representative)

Our Certificate of Authorization to use the _____ (A) or (B) Symbol expires _____ 19

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of _____ and employed by _____ of _____ have compared the statements in this manufacturer's data report with the described boiler and state that the parts referred to as data items 7b, 12, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer and/or the assembler has constructed and assembled this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE. The described boiler was inspected and subjected to a hydrostatic test of 1,163 psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ 19 _____

_____ (Inspector) Commissions _____ (Nat'l Board or State and No.)

Printed in U.S.A. (1/64) Copies of this Form obtainable from the ASME, 345 E. 47th St., New York, N. Y., 10017

5(a) Drums

No.	Nominal diameter in.	Length Ft	Length In.	Shell plates: Brand	Shell plates: Material spec. no.	Shell plates: Thickness	Shell plates: Inside radius	Tube sheets: Thickness	Tube sheets: Inside radius	Tube hole ligament efficiency %: Longitudinal	Tube hole ligament efficiency %: Circumferential
1	18 OD	34	11-3/4	Seamless	SA-106-B	1.156"	7.844"	1.156"	7.844"	43.0	26.6
2	18 OD	34	11-3/4	Seamless	SA-106-B	1.156"	7.844"	1.156"	7.844"	43.0	26.6
3	42 ID	36	10	FB	SA-212-B	1-29/32"	21"	1-29/32"	21"	49.2	32.3
4	41-3/4 ID			FB	SA-212-B	2-1/32"	20⅞"	2-1/32"	20⅞"		
5											

No.	Longitudinal joints: No. & type*	Longitudinal joints: Efficiency %	Circum. joints: No. & type	Circum. joints: Efficiency %	Heads ★ OVAL HANDHOLES: Brand	Material spec. no.	Thickness		Type**	Radius of dish	Manholes: No. Size	Hydrostatic test, lb
1	0-1	100	--	--	FB	SA-212-B	3"	3"	1	--	★2-4½"x5½"	1050
2	0-1	100	--	--	FB	SA-212-B	3"	3"	1	--	★2-4½"x5½"	1050
3	1-2	100	4-2	100	FB	SA-212-B	1-29/32"	1-29/32"	3	Ellip.	2-12"x16"	1050
4												
5												

* Indicate if 1. Seamless; 2. Fusion welded; 3. Forge welded; 4. Riveted.

** Indicate if 1. Flat; 2. Dished; 3. Ellipsoidal; 4. Hemispherical.

5(b) Boiler Tubes

Diameter	Thickness	Material specification no.
2"	.105"	SA-178-A ERW
2"	.150"	SA-178-A ERW

(5c) Headers No.....
(Box or staggered; Mat. spec. no.; Thickness)

Heads or Ends.....Hydro. Test-Lb.....
(Shape; Mat. spec. no.; Thickness)

5(d) Staybolts.....
(Mat. spec. no.; Diameter; Size telltale; Net area)

Pitch..... Net Area..... Max. S.W.P.....
(Supported by one bolt)

5(e) Mud Drum.....
(For sect. header boilers. State size; Shape; Mat. spec. no.; Thickness)

Heads or Ends.....
(Shape; Mat. spec. no.; Thickness)

Hydro. Test-Lb.....

6(a) Waterwall Headers

No.	Size and shape	Material spec. no.	Thickness	Heads or Ends: Shape	Heads or Ends: Thickness	Heads or Ends: Material spec. no.

6(b) Waterwall Tubes

Hydro. test, lb	Diameter	Thickness	Material spec. no.

7(a) Economizer Headers

2	8⅛" OD	SA-106-B	0.718"	1-0	29/32"-0"	SA-212-B	1163	2"	.180"	SA178A ERW

7(b) Economizer Tubes

8(a) Superheater Headers

2	8⅛" OD	(SA-106-B	0.718")	1-0	29/32"-0"	SA-212-B	1050	2"	.150"	SA178A ERW
1	8"	(SA-53	Sch. 80)				1050	2"	.180"	SA213T/11
1	8"	SA-53	Sch. 80	Superheater inlet		pipe	1050			

8(b) Superheater Tubes

9(a) Other Parts (1) PIPING (2)..... (3).....
NO CONNECTIONS TO ITEM 10 EXCEPT:

9(b) Tubes for Other Parts

a	4 - 1½"	SA-53	Sch. 80	2-B.O. Pipes 2-W.C. Pipes	1050			
b	1 - 2"	SA-53	Sch. 80	Soot Blower Pipe	1050			
c	2 - 4"	SA-53	Sch. 80	Economizer Pipes	1163	1-1½"	Frg.Flg.S.V.Noz.-SH	

10 Openings (1) Steam 1 - 8" Studded Pad (2) Safety valve 2-2½" Studded Pads (drum)
(No., size, and type of nozzles or outlets)

(3) Blow off 2 - 1½" Socketweld Connections (4) Feed 1-4" Frg.Flg.Noz.R.H.Side #3 Drum
(No., size, and type of nozzles or outlets) (No., size, type, and location of connections)

11		Bursting pressure weakest part	Maximum S.W.P.	Factor of safety	Shop hydro. test	Heating surface
a	Boiler	2964	700	4.23	1050	10,269
b	Waterwall					
c	Economizer	3528	775	4,55		5,270
d	Superheater	3528	700	5.04	1050	1,243

Heating surface to be stamped on drum heads. This heating surface not to be used for determining minimum

12 Field hydro. test
1163

PERFORMANCE GUARANTEE

subject to the fulfillment of the performance conditions specified in the preceding paragraphs, the Company guarantees that the equipment will be capable of achieving the following performance during the test period specified herein.

A. Maximum Continuous Capacity

1. The Company guarantees the equipment proposed hereunder to be capable of evaporating steam for a continuous period of 24 hours at a rate of 300,000 lb of steam per hour when firing the specified Natural Gas or No. 6 Fuel Oil, with a -20 Deg. F inlet air temperature.

B. Performance (at an evaporation rate of 300,000 lb/hr)

1. The maximum average solids in steam leaving the upper drum will not exceed 0.05 ppm when the total dissolved solids in the boiler water are less than 100 ppm.

2. The maximum average steam temperature at the desuperheater outlet will be 752 Deg.F (+/- 10 Deg.F) from 120,000 to 300,000 lb/hr steam when firing the specified Natural Gas.

3. The average gas temperature leaving economizer at MCR will be 350 Deg.F(+/- 15 deg F) when firing the specified Natural Gas.

4. The thermal efficiency will not be less than 82.6% when firing the specified Natural Gas

5. The thermal efficiency will not be less than 87.7% when firing the specified No.6 Fuel Oil.

C. Emissions

1. When firing the specified Natural Gas with a maximum fuel fired of 398.2 MM Btu/hr, the proposed unit will not exceed the following exhaust gas emission levels. Test equipment, procedures, and calculations shall be in accordance with the methods listed in 46 CFR Part 30, Appendix A:

a. NOx	:	.08 lb/MM BTU	(Test Method # 7)
b. CO	:	175 ppm	(Test Method #10)
c. Total Hydrocarbon	:	20 ppm	(Test Method #25)

Corr

e. The SO2 concentration is an exclusive function of the Sulfur content of the fuel fired. Therefore, SO2 emissions are not within the control of the boiler manufacturer.

THE GUARANTEES SET FORTH ABOVE ARE THE ONLY PERFORMANCE GUARANTEES MADE BY THE COMPANY.

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

Emery
0302-6984-1

PM
10129187
Cantonment, FL

file copy

Champion
Champion International Corporation

DER
OCT 30 1987
BAQM

October 29, 1987
AC 17-140962

Mr. William Thomas
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

Attached is the additional information which was requested during our meeting on October 23, 1987.

If I can provide any other information, please call.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/ma
Attachment

cc: Thomas Moody, DER Pensacola

Pradeep Raval, DER Tallahassee
Thomas Rogers, DER Tallahassee
CHFIBT

FORM OF PAYMENT *

CASH ☐ GBL/CBL ☐ _____ FCCOD ☐

PPD ☒ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

0 3 0 2 7 6 9 8 4 1

UNITED STATES / CANADA

STANDARD SERVICES *

Same Day ☐ Other ☐

Next Morning ☒ Metro ☐

Second Morning ☐

INTERNATIONAL

STANDARD SERVICES *

Courier Express ☐ Business Documents ☐

Air Cargo Service ☐ Customs Clearance ☐

Air Economy Service ☐ Delivery ☐

E Shippers Emery Account Number: 99126059 7

Date: 10/29/87 | Origin: PNS | Shipment Number: 030276984

From:

David Arceneaux 904/968-2121

CHAMPION INTERNATIONAL

MUSCOGEE RD

CANTONMENT, FL

Canada ☐

Customer's Reference Numbers

Zip: 32533

To:

Mr. William Thomas - DER

Twin Towers Office Building

2600 Blair Stone Road

Tallahassee, FL

Saturday Delivery ☐

Hold at Airport ☐

Canada ☐

E Consignee's Emery Account No.

Zip: 3 2 3 0 1

Tariff Dest. | Gateway

C.O.D. $

C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ A ☐ B ☐

Description and Marks	Dimensions L	W	H	Pieces	Weight (in Lbs.)
Letter Urgent Envelope				1	1

3230 N

Terms and Conditions on Back

TODSR ☐ Haz Mat ☐ Edit ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐

1 2 3 4 5 6

7 8 9 0 1 2

Envelope 9X12 ☒ Pack 12X15 ☒

Shipper's Signature X

International Charges: Free Domicile ☐ Comm. Code

Third party Emery Account Number mandatory for Third party billing E

Third Party Emery Account No.

At Origin _____

Base Charge _____

At Destination _____

TOTAL

Intl. Customs Value

Intl. Insurance

Total Transportation Charges

Other Charges ☐ OC- $

	Mo.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Multiple Shpts. / Drop Box					
Time Rec'd By Emery	Day	1	2	3	4	5	6	7	8	9	0	1	2	1	2	3	4	5	6
	24 Hour Time	1	0	1	2	0	2	1		00		15		7	8	9	0	1	2
		3	4	5	6	7	8	9		30		45		Over 32 →					

Goods Rec'd At: Shippers Door ☒ Drop Box ☐ A ☐ Emery Terminal ☐ Carrier Advance ☐ B ☐

By: Emery Representative.

Natural Gas Usage
(Million Cubic Feet)

Boiler	No.1/No.1 Mill	No.3/No.1 Mill	Package No.4 No.2 Mill
Permit	A017-30106	A017-30107	A017-30110
Year	Gas Burned	Gas Burned	Gas Burned
Pre 1980	342	1009	240
1980	94	887	105
1981	27	578	171
1982	0	0	0

Note: Natural gas factor 1.1×10^6 Btu/ft^3 gas.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

September 25, 1987

Mr. Wayne Aronson
Chief
Program Support Section
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Mr. Aronson:

RE: Champion International Corporation
State Construction Permit: AC 17-140962
Federal Permit Number: PSD-FL-126

Enclosed for your review and comment is the permit application for the above referenced company. If you have any comments or questions, please contact Pradeep Raval or Tom Rogers at the above address or at (904)488-1344.

Sincerely,

M. V. James

Margaret V. James
Planner
Bureau of Air Quality
Management

/mj

cc: Pradeep Raval
Tom Rogers
Ed Middleswart, NW Dist.

375 Muscogee Road
P.O. Box 87
Cantonment, Florida 32533-0087
904 968-2121

AC 17-140962
Receipt # 76187
$1000.00

Champion
Champion International Corporation

DER
OCT 23 1987
BAQM

October 22, 1987

Mr. William Thomas
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

Champion plans to operate a rental package boiler to supply 125,000 pounds per hour steam. This boiler is needed due to less than design steam production from the existing No. 1 and No. 2 Power Boilers. The package boiler will allow Champion to operate through winter months and during repair down time on existing boilers. Over the next two years, we will be able to eliminate the need for this temporary boiler by repair or replacement of existing boilers.

The attached permit application is for a temporary permit to install and operate this rental package boiler. Champion would like to proceed with installation in mid-November and have the boiler in operation in early December 1987. If there is any additional information required, please contact me at 904/968-2121, ext. 2519.

Sincerely,

David T. Arceneaux
Supervisor
Environmental Control

DTA/ma
Attachments

cc: Thomas Moody, DER
Jack Bruce
Tom Rogers/Barry Andrews
Pradeep Raval
10/23/87

AC17-140962
Receipt # 76187
$1000.00

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

DER

OCT 23 1987

BAQM

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Gas Fired Boiler [X] New[1] [ ] Existing[1] Temporary Replacement

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Champion International Corporation COUNTY: Escambia

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Temporary Replacement Gas Fired Package Boiler

SOURCE LOCATION: Street 375 Muscogee Road City Cantonment

UTM: East 469 North 3386

Latitude 30 ° 36 ' 19 "N Longitude 87 ° 19 ' 13 "W

APPLICANT NAME AND TITLE: Ted Crane, V. P. Operations Manager

APPLICANT ADDRESS: P. O. Box 87, Cantonment, Florida 32533

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Champion

I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: T P Crane

T. P. Crane, V.P., Operations Manager
Name and Title (Please Type)

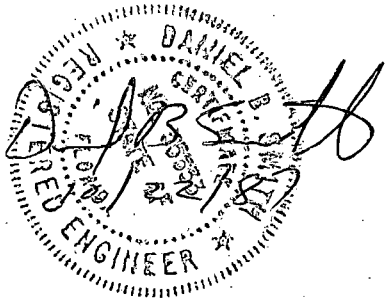
Date: 10/22/87 Telephone No. 904/968-2121

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed _____

Daniel B. Smtih

Name (Please Type)

Baskerville Donovan Engineers, Inc.

Company Name (Please Type)

316 S. Baylen, Suite 300, Pensacola FL 32501

Mailing Address (Please Type)

Florida Registration No. 35633 Date: 10/22/87 Telephone No. 904-438-9661

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Temporary installation of a leased gas-fired package boiler. Details of the boiler are in Attachment I. This application is for a two-year temporary permit as per DER 17-2.500(3)(C). The project will result in full compliance with all Federal and State regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction November 15, 1987 Completion of Construction December 1, 1987

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

There is no pollution control equipment associated with this source.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

This is a temporary replacement. Champion does have several permits related to steam generating units (see Attachment II).

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

Based on FAC 17-2.500(3)(C), a temporary permit is exempt from most PSD requirements. The permittee must provide "reasonable assurance" that the source emissions will not "cause or contribute to a violation of any ambient air quality standard". See Attachment III.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1) N/A

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
NOx	39	147	0.20*	39.0	Same as		Fig. 1
CO	46.8	177	0.24*	46.8	1st column		
SO_2	0.12	0.44	.0006*	0.12			
Particulate	0.89	3.4	.0055*	0.89			
VOC	3.9	14.7	0.02*	3.9			

[1]See Section V, Item 2.

*Estimates from AP-42, not standards. All values are pounds per MMBTU maximum emissions.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4) N/A

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.153	0.177	195

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: N/A lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: 1.1 MMBTU/1000 cubic feet ~~XXXXXX~~ _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): None

F. If applicable, indicate the percent of fuel used for space heating. N/A

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

N/A

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 36 ft. Stack Diameter: 5 ft.

Gas Flow Rate: 64,947 ACFM 32,900 DSCFM Gas Exit Temperature: 600 °F.

Water Vapor Content: 18.72 % Velocity: 55.13 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)] N/A
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.) N/A
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency). N/A
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N/A

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availaoility of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1] Explain method of determining efficiency.
[2] Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

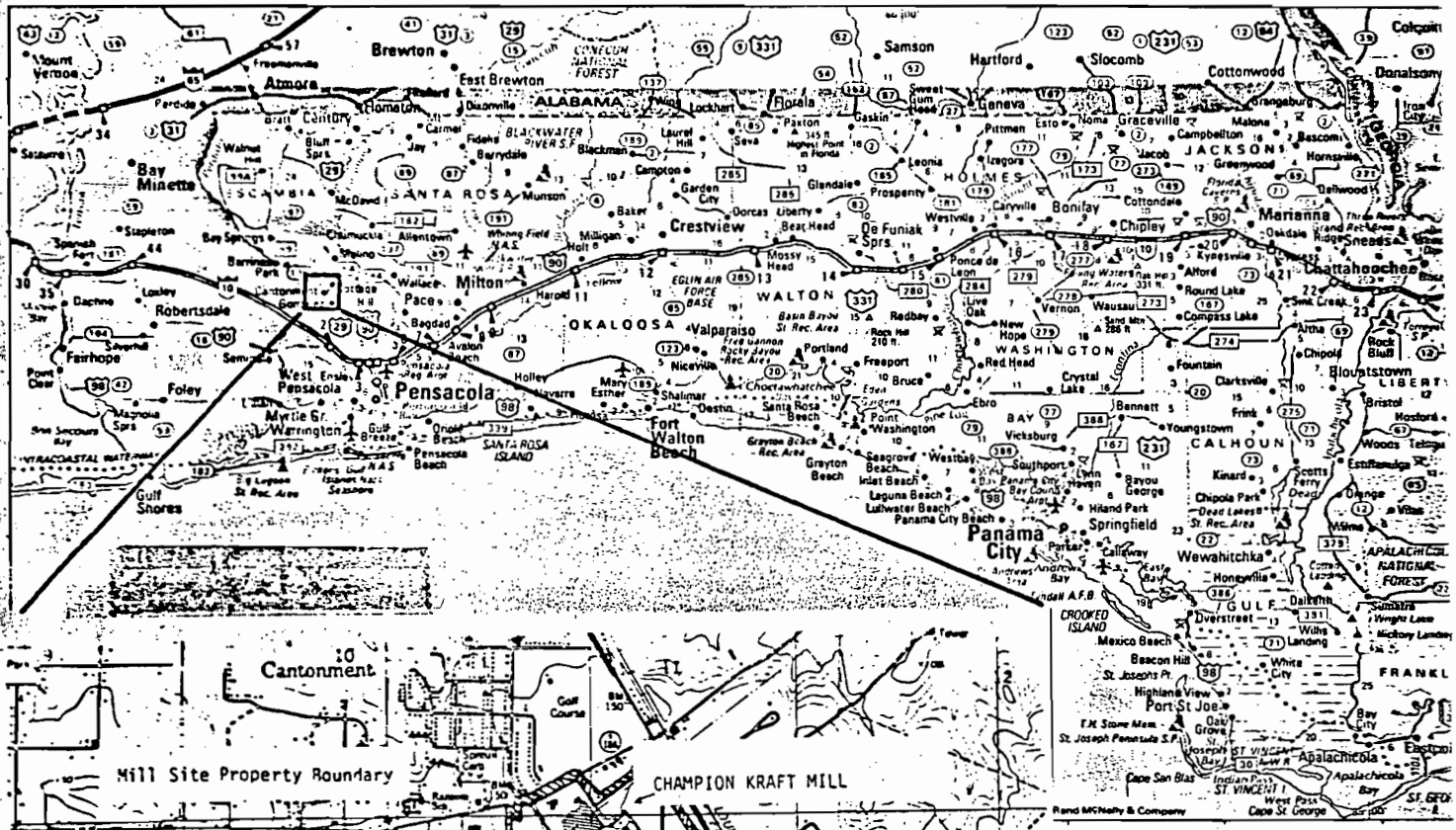
Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

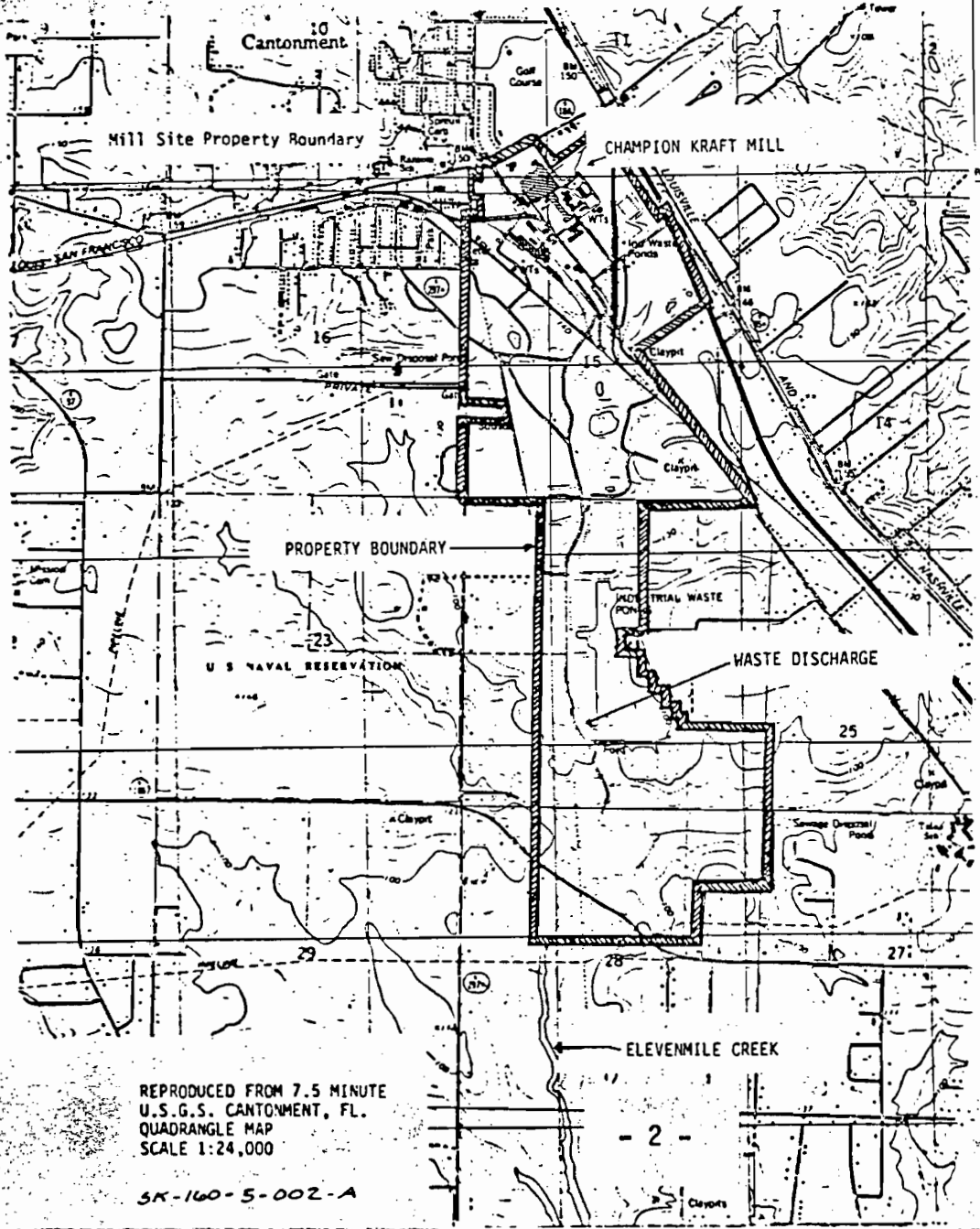
F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxss, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

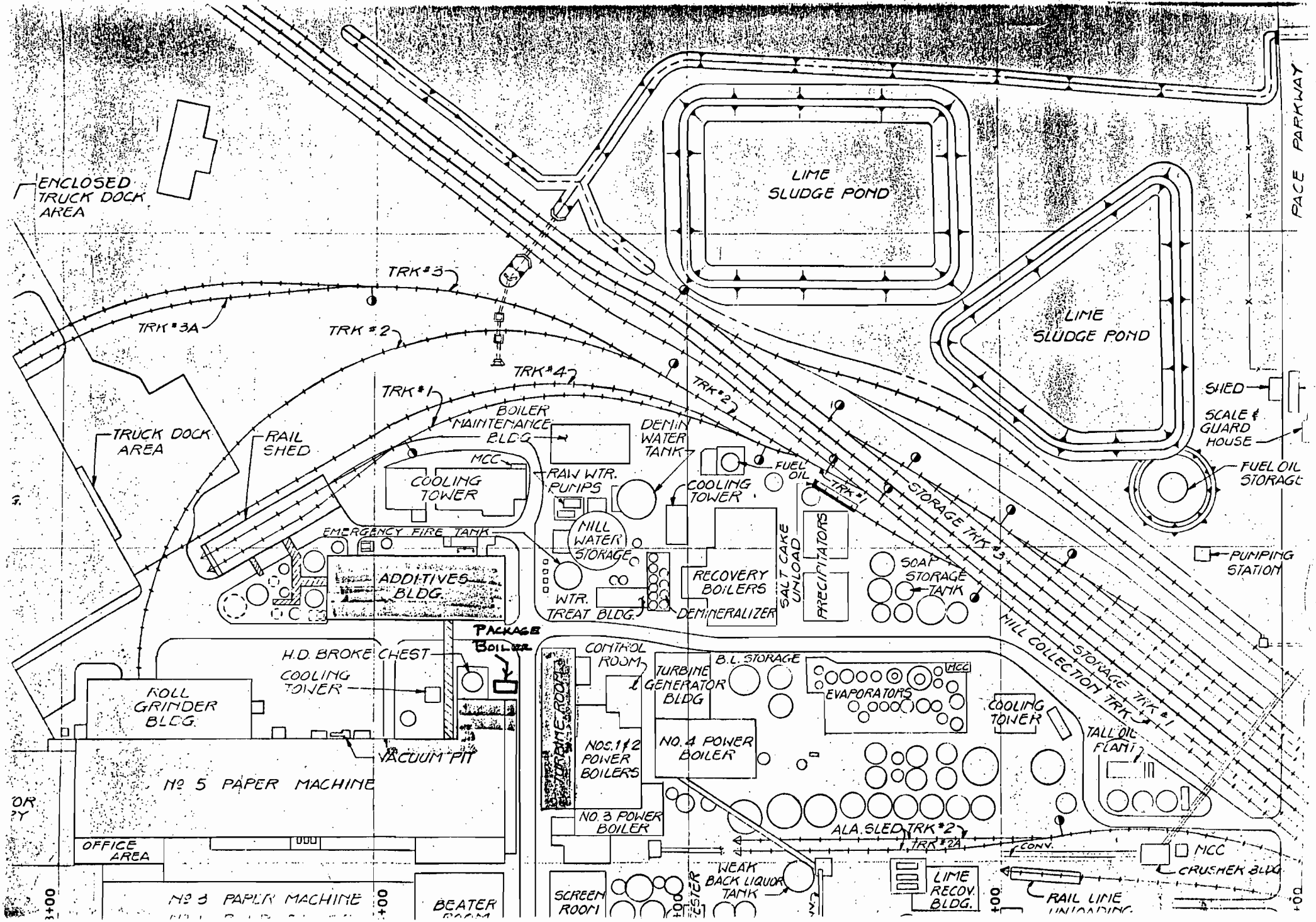
FIGURE I LOCATION OF CHAMPION FACILITY





REPRODUCED FROM 7.5 MINUTE
U.S.G.S. CANTONMENT, FL.
QUADRANGLE MAP
SCALE 1:24,000

SK-160-5-002-A



ATTACHMENT I

The source is a rail transported relocatable package boiler supplied by A.F. Holman Boiler Works of Dallas, Texas. The boiler generates 600 psig steam at 125,000 pounds per hour, and is fueled by natural gas. It is skid mounted and requires only gas, water and steam connections.

The boiler will be located on Champion mill property at the site of the package boiler removed in 1985, Permit No. A017-30110 (Issued 8/14/80 - expired 8/1/85). Temporary gas, water and steam lines will be run to the boiler. A rental stack will be installed.

ATTACHMENT II

Steam Generating Sources

Source	Permit No.	I.D. No.	Permit Expiration Date
Power Boiler #1	A017-104901	10/17/0042/24	August 1, 1990
Power Boiler #2	A017-104902	10/17/0042/14	August 1, 1990
Boiler #3	A017-65482	10/17/0042/33	June 1, 1988
Boiler #4	A017-65490	10/17/0042/37	June 1, 1988
Recovery Boiler #1	A017-104903	10/17/0042/30	August 1, 1990
Recovery Boiler #2	A017-104905	10/17/0042/29	August 1, 1990

ATTACHMENT III

The proposed temporary replacement package boiler will generate 125,000 pounds per hour steam. The maximum heat input is 195 MMBtu per hour with average heat input of 168 MMBtu per hour.

Over the last five years, Champion has shut down three power boilers. These boilers were operated under the following permits, all of which expired on August 1, 1985:

Power Boiler No. 1, Mill No. 1	A017-30106
Power Boiler No. 3, Mill No. 1	A017-30107
Power Boiler No. 4, Mill No. 2	A017-30110

The annual emissions of pollutants based on actual operating condition are summarized on the attached Table III-1. Using emission factors listed in Section III-C, and assuming 365 days per year operation, the maximum expected emissions are also shown on Table III-1. The net difference for all pollutants is negative, except for particulate, which is very small.

In 1979, Champion (St. Regis) submitted a PSD permit application for a new 666 MMBtu per hour bark-fired boiler. As part of the permit application, the mill performed a full PSD review including modeling and impact analysis. The Summary and Conclusions (Chapter II), Air Quality Impacts (Chapter VI), Appendices on Dispersion Modeling (Appendix A), and Meteorological (Appendix B) are attached. The three boilers recently shut down were included in the baseline data considered in that application.

For NOx emissions, the air quality model predicted an annual impact of 3 $\mu g/m^3$ against a baseline of 32 $\mu g/m^3$. Since the annual standard is 100 $\mu g/m^3$, the 3510 tons per year of NOx expected from the bark boiler did not significantly impact the NAAQS.

Based on the reduction in NOx emissions through the shutdown of the three power boilers mentioned and the insignificant impact from the new bark boiler, Champion believes that there would be no significant impact of NOx on the NAAQS from their package boiler. A similar discussion can be presented for the other pollutants.

Based on these assessments, Champion believes we have complied with 17-2.500(3)(C)(2), "reasonable assurance that the source emissions will not cause or contribute to a violation of any ambient air quality standard".

TABLE III-1

Emission Inventory
Tons per Year

	SO_2	PM	NOx	VOC	CO
No. 1 Boiler	1.64	0.31	56.3	3.8	45.0
No. 3 Boiler	3.06	1.38	215.0	14.5	172.0
No. 4 Package	0.03	0.14	25.5	1.7	20.4
TOTAL	-4.73	-1.83	-296.8	-20.0	-237.4
Proposed Package Boiler	0.44	3.4	147	14.7	177
Net Difference	-4.29	+1.57	-149.8	-5.3	-60.4

CHAPTER II

SUMMARY AND CONCLUSIONS

1. Approval to construct a major new source (bark-fired boiler) is being requested by St. Regis Paper Company for the Pensacola, Florida mill, which is located near Cantonment. This document contains the engineering analysis associated with obtaining air pollution permits from the Florida DER and the U.S. EPA. The analysis includes an evaluation of control technology used for the new sources, an assessment of whether the ambient air quality standards will be maintained and an analysis as to whether the PSD increments would be consumed for this area.

2. This application is for a 666 MMBtu/hr bark-fired boiler, only. The bark boiler will also be designed to be fired with natural gas and fuel oil as a standby auxiliary fuel. On July 12, 1979, St. Regis submitted an application to construct new sources which were part of the mill expansion, i.e., the fluidized bed calciner, Kamyr® Washer System, and a non-condensable gas system. This expansion will add 750 tons per day of air dried pulp capacity to the existing mill. For the analysis ES assumed that the emissions for the boiler were calculated to reflect the highest emission levels, e.g., for SO_2 the emission rates assumed 100% firing of oil.

3. The bark boiler and other sources related to the mill expansion would make this a major source, according to the EPA definition. The maximum combined emissions after the control devices are given in tons per year. Since the potential emissions are greater than 100 tpy and the actual emissions (shown below) are greater than 50 tpy, a detailed air quality impact analysis was required.

	MILL EXPANSION	BARK BOILER	TOTAL FOR THE SOURCE
TSP	37	292	329
SO_2	0.4	1,867	1,868
NO_x	67	3,443	3,510
HC	22	54	76
CO	1	688	689

Table II-1 summarizes the maximum emission levels which St. Regis is seeking for their air pollution permit for No. 4 Bark Boiler.

TABLE II-1

MAXIMUM EMISSION LEVELS OF NEW BARK BOILER

POLLUTANT	FUEL	EMISSIONS		
		POUNDS PER HOUR	LB/MMBTU	TONS PER YEAR
TSP	Bark	67	0.1	292
	Gas	67	0.1	292
	Oil	67	0.1	292
SO_2	Bark	2	.003	5
	Gas	34	.051	148
	Oil	427	.641	1,867
NO_x	Bark	787	1.18 Check 0.7 (5 PPM)	3,443
	Gas	134	.20	583
	Oil	200	.30	875
HC	Bark	13	.020	54
	Gas	13	.020	54
	Oil	13	.020	54
CO	Bark	158	.237	688
	Gas	158	.237	688
	Oil	158	.237	688

4. Although DER operated several air quality monitoring stations in the area, EPA requested additional monitoring of TSP in the vicinity of the plant for a 4-month period to establish the baseline level for this pollutant. EPA also suggested that SO_2 data being collected by Gulf Power be used to establish baseline SO_2 conditions in this area.

5. All of the air quality data obtained for this area indicate that all ambient air quality standards are being attained. ES computed the available increments of TSP and SO_2 which could be consumed by new sources locating in this area. All of the increments for these pollutants are available for this Class II area. However, the increases in pollution levels for these pollutants must still be within ambient air quality standards.

6. St. Regis proposes the use of a Venturi scrubber with a 9" pressure drop to minimize the emissions of air pollutants from the bark boiler. The exhaust flow rate from this source will be about 265,000 acfm. The scrubber is one of the best systems for removing TSP from this type of source. The NSPS emission limit of 0.10 lb/MMBtu will be achieved. The scrubber will also remove about 20% of the SO_2 when the unit is fired with oil. NO_x and CO emissions will be minimized through the use of burner design and good operating practices. These operating procedures will be established when the boiler is tested at startup and instituted as an operating practice at that time. Hydrocarbons (or volatile organic compounds) will be minimized by designing an efficient combustion chamber for the boiler. This system and operating procedure represent the best available control technology (BACT) for minimizing emissions to the atmosphere.

7. There are no other new major sources of emissions in this area other than the new emissions from the proposed mill expansion, according to EPA and DER officials. Exxon Company, U.S.A. has received a permit for a minor source (gas fired turbine) which has emissions of 12 tpy of SO_2. This source is located 40 km from the St. Regis site and will have less than a 0.1 $\mu g/m^3$ maximum 24-hour impact in Cantonment.

8. There are several Class I PSD areas in Florida and Alabama. Breton National Wildlife Refuge in Louisiana is the closest Class I area, but it is located about 100 miles from the proposed site. EPA considers a new source may have a significant impact if it is within 100 km (62 miles) of a Class I area.

9. The bark boiler and other new sources at the mill expansion have a

minor impact on air quality levels. For TSP the annual impact is less than 1 $\mu g/m^3$, which can be compared to the Class II PSD increment of 19 $\mu g/m^3$. The primary standard for this pollutant is 75 $\mu g/m^3$. For SO_2 the impact is 1.3 $\mu g/m^3$. The Class II PSD increment for SO_2 is 20 $\mu g/m^3$. The SO_2 standard is 80 $\mu g/m^3$, AAM. A minor impact was calculated for the other pollutants. These new sources will consume a small portion of the PSD increment. The air impact for all averaging periods is well within the standards and PSD increments established for this area.

10. In sum, the new bark boiler, as well as the other sources from the mill expansion can be built without significantly impacting air quality near Cantonment, Florida. The best available control technology will be used to minimize emissions to the atmosphere. The NAAQS are not violated in the area and will not be even if the full PSD increments are consumed. The new sources' impact on air quality will be well within the PSD established by EPA. Table II-1 summarizes the maximum emission levels which St. Regis is seeking for their air pollution permit for No. 4 Bark Boiler.

CHAPTER VI

AIR QUALITY IMPACTS

In order to evaluate the possible impact upon ambient air quality from the proposed mill expansion and the bark boiler, mathematical air pollutant dispersion models were used. In addition, a meteorological analysis was performed to determine the impact of the mill expansion and bark boiler upon ozone levels in Mobile, Alabama.

ANALYSIS OBJECTIVES

The modeling and meteorological analyses were designed to accomplish the following objectives:

1. Identify the potential for violating any NAAQS;
2. Quantify the amount of the available particulate and sulfur dioxide increments that would be consumed by the bark boiler and the mill expansion as well as by other new sources in the area; and
3. Determine the potential that volatile organic compounds emitted from the bark boiler would have for exacerbating the ozone non-attainment problem in Mobile.

The statutory and regulatory limits that relate to air quality impacts have been discussed previously in Chapter I.

The general procedures used to accomplish these objectives are described in the next section of this chapter. The central issue is defining control technology requirements, determining whether emissions offsets apply and determining if PSD increments are consumed in the air impact analyses. The emissions from the mill expansion and the bark boiler were evaluated with the use of EPA approved dispersion models. The model results were examined and compared to the criteria outlined above.

METHODOLOGY USED FOR THE ANALYSIS

Several discussions were held with EPA Region IV and Florida DER personnel as to the methodology to be used to conduct such an analysis. EPA Region IV provided a kit and established certain modeling procedures[1] which provided

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[1] Letter dated December 21, 1978 from W. Ray Cunningham, Chief, Air Strategy Development Section.

a stepwise technique for obtaining the PSD permits. As best possible, these instructions were followed in conducting this analysis.

Recently, EPA has published guidelines on air quality dispersion modeling[1]. Two of the models recommended in the guidelines are the AQDM and the CRSTER dispersion models. These models were selected for use in the Pensacola Mill area to predict the annual average concentrations and the short term concentrations. The models were used to estimate air quality impacts from particulates, sulfur dioxide, nitrogen oxides, carbon monoxide, and hydrocarbons.

A complete description of the AQDM and CRSTER models is included in Appendix A. The CRSTER model used was a version which had been modified, under contract to EPA Region IV, to handle spatially distributed point sources and to allow greater flexibility in output format. This version has been used by EPA Region IV to estimate short-term impacts from PSD sources. The modifications are briefly described in Appendix A.

Model Inputs

Model inputs required by both AQDM and CRSTER are emissions data and meteorological data. The emissions data used in this analysis have been discussed previously in Chapter IV. These emissions were calculated at maximum design heat input. Thus, during much of the time, actual emissions could be quite lower. Stack parameters given in Chapter IV were used for both models.

Meteorological data for input to the dispersion models were obtained from the National Climatic Center (NCC) in Asheville, North Carolina. For the AQDM, a ten-year (1962-1971) STAR summary of three-hour observations taken at the Whiting Naval Air Station in Milton, Florida was used. These summaries are used in AQDM to estimate the frequency of occurence for various dispersion conditions. Thus, realistic estimates can be made of the annual average concentrations based on the ten years' worth of data. For the CRSTER model, hourly surface and upper air measurements are required. The necessary upper air data were collected only during a five year period from 1960 to 1965 at selected meteorological stations in the U.S. Similarly,

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[1] Guidelines on Air Quality Models, EPA-450/2-78-027, OAQPS No. 1.2-080, U.S. EPA, Research Triangle Park, North Carolina, April 1978.

hourly surface data have not been collected since approximately the same time. Therefore, 1964 surface data from Pensacola and upper air data from Mobile were used in the CRSTER modeling. This choice of meteorological data was approved by EPA Region IV[1]. EPA had conducted modeling with CRSTER before and had determined that 1964 was the critical year. Summaries of the meteorological data are included in Appendix B.

Receptor Grids

For each model, a receptor grid system was selected which would provide sufficient confidence in the maximum value determined by modeling. For the AQDM, a 1.0 km spacing between receptors was used. A stepwise screening procedure was used with CRSTER. Based upon an initial analysis using techniques in the Workbook of Atmospheric Dispersion Estimates (Publication No. AP-26), it was estimated that the short-term maximum would lie within 2-4 km of the bark boiler. A square grid system with a receptor spacing of 1.0 km extending 4-5 km from the source was used. Outside of this inner grid, a grid with a spacing of 2.0 km was extended to a distance of 8-9 km from the boiler. A full year of meteorological data was used to estimate the maximum at each receptor in these grids. Based upon these results, the days of the year on which a maximum could be expected and the areas where a maximum might occur were identified. Then, receptor grids with a spacing of 0.1 km were placed around the areas of a possible maximum and modeled for the days identified. The same procedure was used for the calciner. Separate runs were made to determine the combined impact of the boiler, calciner, and new sources other than St. Regis.

DISCUSSION OF THE RESULTS

The results of the air pollutant dispersion modeling were reviewed with regard to the objectives outlined previously. Particulate emissions only were modeled. The impacts from other pollutants were determined based upon the results for particulate. The results for the bark boiler and the calciner, which were the only emission sources considered, are given in Table VI-1.

Attainment of the NAAQS

The impact of the bark boiler and calciner upon attainment of the NAAQS

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[1] Letter dated December 21, 1978 from W. Ray Cunningham, Chief, Air Strategy Development Section.

TABLE VI-1

SUMMARY OF AIR QUALITY IMPACTS

($\mu g/m^3$)

POLLUTANT[b]	AVERAGING TIME[a]	MAXIMUM CONCENTRATIONS PREDICTED BARK BOILER	CALCINER	BOTH SOURCES[d] COMBINED
Particulate	Annual	0.2	0.4	0.5
	24-Hour	5.6	4.4	6.6
Sulfur Dioxide	Annual	1.3	<0.1	1.3
	24-Hour	35.8	0.1	35.8
	3-Hour	95.3	0.2	95.3
Carbon Monoxide	8-Hour	[c]	-	[c]
	1-Hour	67.5	-	67.5
Hydrocarbons	3-Hour	2.8	7.6	7.6
Nitrogen Dioxide	Annual	2.5	0.6	2.9

[a] The values reported are estimates of the annual arithmetic mean and the maximum concentration for other averaging times.

[b] Particulate was modeled and the values for other pollutants were scaled from the TSP results.

[c] No estimate of the 8-hour maximum concentration was made.

[d] The maximum concentration from both sources is not necessarily the sum of the individual maximum from the boiler and the calciner. This is because the maximum occurs at different locations, and, for 24-hour and 3-hour averaging times, during different time intervals.

for each of the criteria pollutants was determined. In this analysis it was asssumed that hydrocarbons are nonreactive in order to estimate the impact of the proposed new sources at the mill upon the NAAQS.

Total Suspended Particulates

The bark boiler and calciner will have little impact upon particulate air quality on an annual basis or on a 24-hour averaging period basis. The maximum predicted concentration on an annual basis was 0.5 $\mu g/m^3$. The maximum predicted 24-hour TSP concentration was 6.6 $\mu g/m^3$. The estimated baseline annual average TSP concentration was 40 $\mu g/m^3$ and the second highest 24-hour concentration was 58 $\mu g/m^3$. Thus, if the maximum impacts from the mill expansion were added to these baseline concentrations, the results would still be substantially below the NAAQS of 75 $\mu g/m^3$, annual primary standard, and 150 $\mu g/m^3$ maximum 24-hour secondary standard.

Sulfur Dioxide

Based upon the modeling results, the mill expansion will have an insignificant impact upon sulfur dioxide concentrations if the boiler is operated on bark and natural gas. The maximum annual arithmetic mean concentration predicted using AQDM was 1.3 $\mu g/m^3$. The maximum 24-hour concentration resulting from the boiler and calciner was predicted to be 35.8 $\mu g/m^3$. The estimate of the maximum 3-hour concentration was 95.3 $\mu g/m^3$. None of these impacts should significantly endanger attainment of the NAAQS in the area.

Carbon Monoxide

The potential threat to the carbon monoxide NAAQS from the bark boiler would be infinitesimal. By proportioning CO emissions to particulate emissions, an estimate was made of the CO impact based upon particulate modeling results. This estimated impact was 67.5 $\mu g/m^3$ on a 1-hour basis compared to the NAAQS of 40,000 $\mu g/m^3$.

Ozone

Because no viable and readily usable photochemical oxidant model is available for analyzing the impact of sources such as the mill expansion and bark boiler, no modeling for ozone was performed. However, an estimate of the impact of these sources upon ozone ambient air quality in Escambia County can be made by comparing the VOC emissions from the calciner and bark boiler to those from all other sources in Escambia County. The estimated VOC emissions in Escambia County are as follows in tons per year:

YEAR	STATIONARY SOURCES	MOBILE SOURCES	TOTAL
1977	6813	16,583	23,396
1982	6402	13,507	19,909
1987	6414	10,579	16,993

These emissions estimates were developed by DER for their recent SIP revision. Of the total 1977 VOC emissions from stationary sources, only 419 tpy result from fuel combustion, solid waste disposal or open burning. VOC emissions from petroleum storage, transportation, and marketing were 2822 tpy in 1977. Industrial processes emitted 1904 tpy, and surface coating and solvent usage was responsible for 1668 tpy. The VOC emissions from the mill expansion and bark boiler will increase the total VOC emissions in Escambia County by 0.4% in 1982. VOC emissions from stationary sources will be increased by 1.2% in 1982. Thus, VOC emissions from the bark boiler and calciner should have a negligible impact on total VOC emissions in Escambia County and, consequently, upon ozone ambient air quality in the county.

Hydrocarbons

Assuming that hydrocarbons are nonreactive and scaling the estimated concentration from the results for TSP based upon the ratio of emissions, the maximum 3-hour concentration resulting from the mill expansion sources would be 7.6 $\mu g/m^3$. This impact should not represent a substantial threat to attainment of the hydrocarbon NAAQS. However, this NAAQS is designated as only a guide for developing an SIP for ozone.

Nitrogen Dioxide

Using the model results for TSP and proportioning the impact based upon the ratio of emissions, the impact from the mill expansion sources would be about 2.9 $\mu g/m^3$. On an annual basis, this predicted impact should not endanger the NAAQS for NO_2.

PSD Increment Consumption

The PSD increment available and consumed by the proposed new sources at St. Regis is discussed below for total suspended particulate and sulfur dioxide. Increments have not been established for other pollutants.

Total Suspended Particulate

The area around Cantonment, Florida is a Class II PSD area with maximum

allowable increase in TSP concentration of 19 $\mu g/m^3$ AGM and 37 $\mu g/m^3$ 24-hour maximum as discussed in Chapter V. The increments are evaluated based on four months of baseline data collected by St. Regis. No new major sources have been constructed which would consume these increments. Consumption of PSD increment by minor and area sources would be negligible. No new major sources have been proposed that would consume increment. Thus, the full PSD increments are available.

The maximum annual arithmetic mean concentration isopleths for both the bark boiler and calciner combined are shown in Figure VI-1. The total impact has a maximum of 0.5 $\mu g/m^3$ near St. Regis. (The predicted value would be somewhat less if AGM is calculated rather than the AAM.) Clearly, the consumption of annual TSP increment is minimal.

The maximum 24-hour concentrations for the bark boiler alone, the calciner alone, and both sources combined are shown in Figures VI-2 through VI-4. These values were predicted without regard to day of the year. The maximum 24-hour concentration predicted to result from both sources combined was 6.6 $\mu g/m^3$, about one-fifth of the available increment.

Sulfur Dioxide

Class II increments apply at all points impacted by the proposed new sources at St. Regis. These increments apply to three averaging periods: 20 $\mu g/m^3$ annual arithmetic mean; 91 $\mu g/m^3$ maximum 24-hour mean; and 512 $\mu g/m^3$ maximum 3-hour mean. No major construction since the baseline has consumed increment. Area and minor sources have not substantially consumed increment. No known PSD applications other than that filed previously by St. Regis have consumed SO_2 increment.

The maximum predicted impact from the proposed new sources at St. Regis was predicted to be 1.3 $\mu g/m^3$ on an annual basis. The maximum predicted 24-hour concentration was 35.8 $\mu g/m^3$. The maximum 3-hour concentration was predicted to be 95.3 $\mu g/m^3$. Thus, no major part of the available SO_2 increments would be consumed by these two new sources.

POTENTIAL IMPACT OF ST. REGIS VOC SOURCES UPON OZONE ATTAINMENT

Because a large amount of the ozone measured in the ambient atmosphere results from complex photochemical reactions between VOCs and oxides of nitrogen, the basic philosophy for attaining the ozone standard has been to limit

FIGURE VI-1

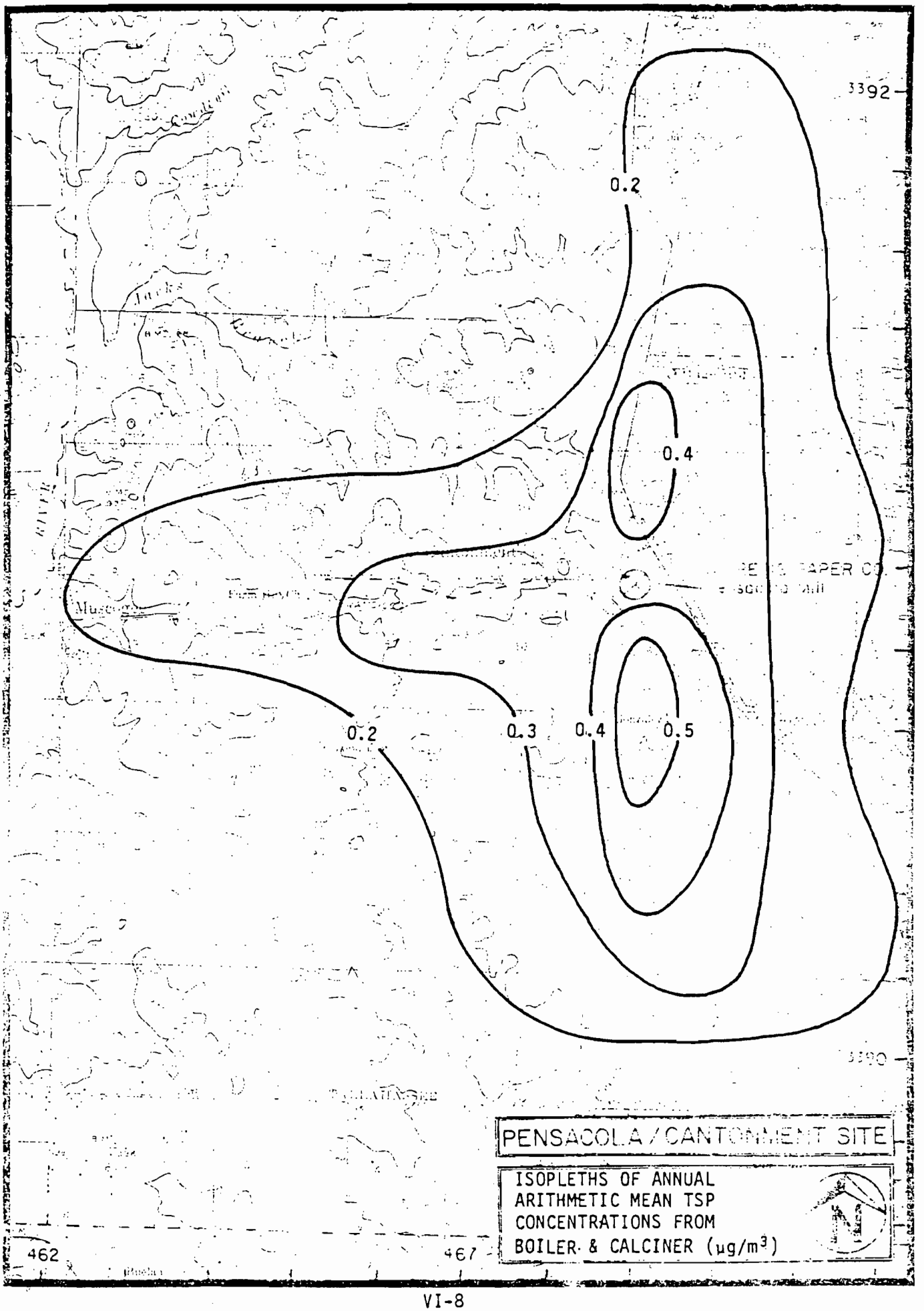


FIGURE VI-2

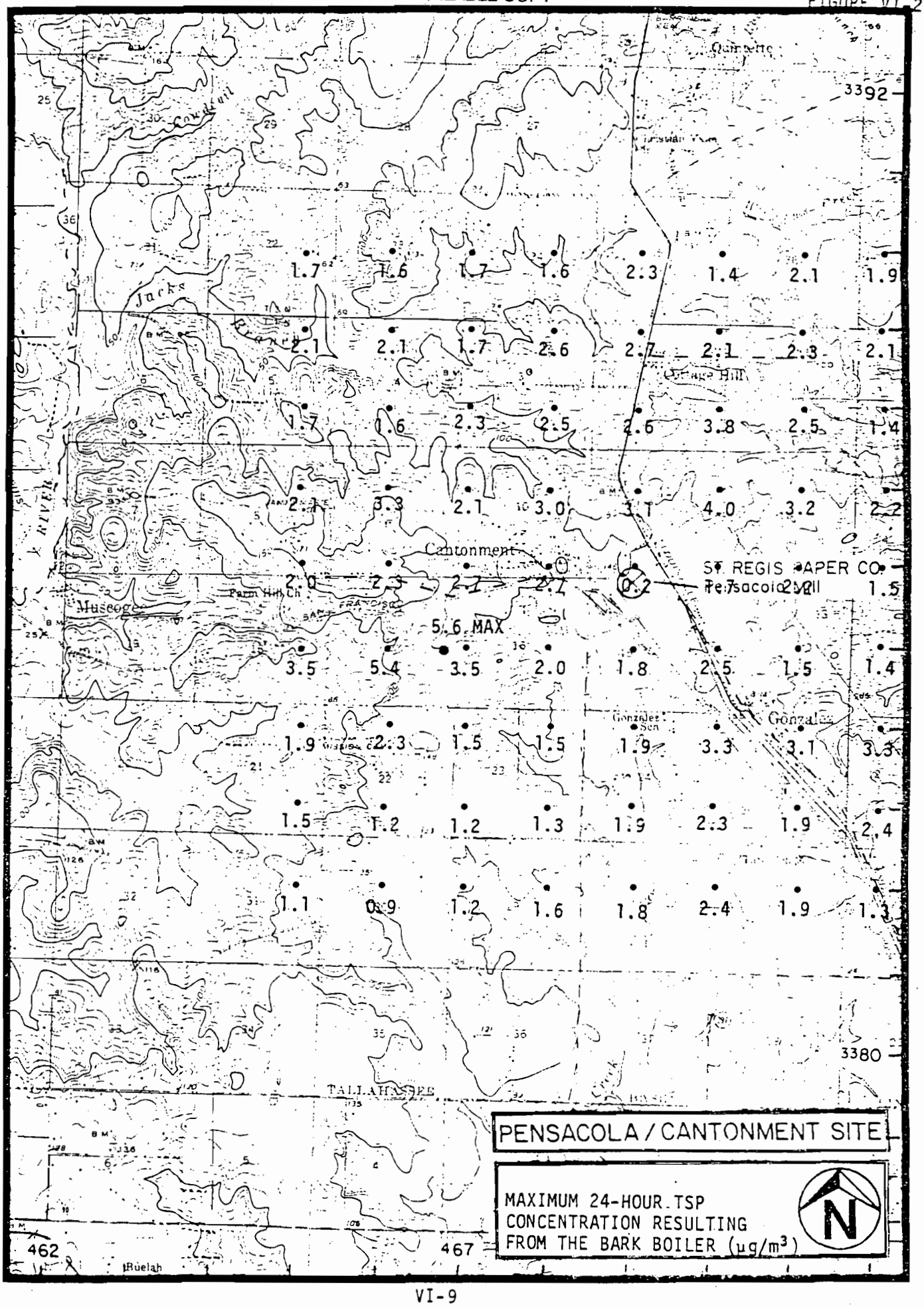


FIGURE VI-3

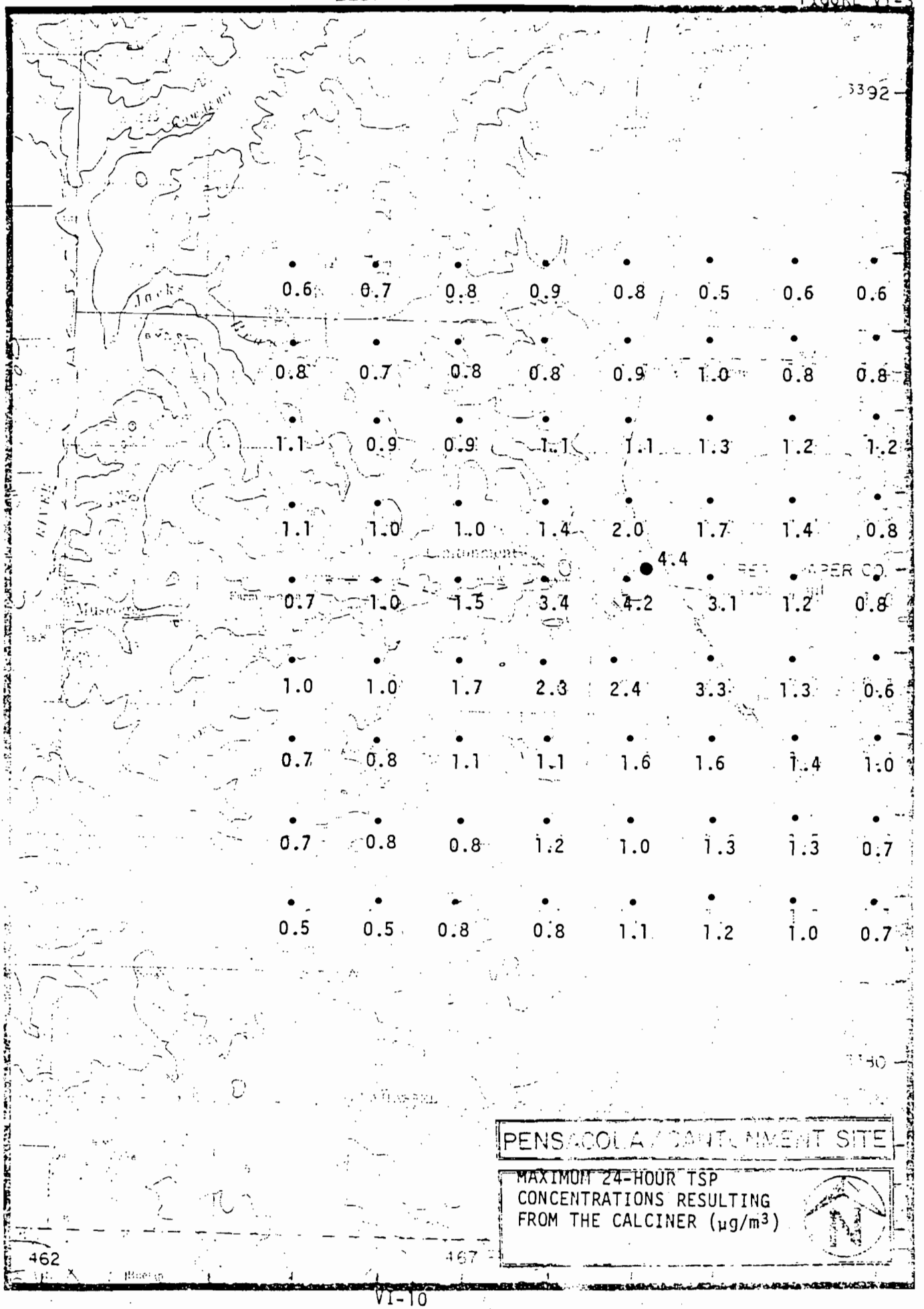
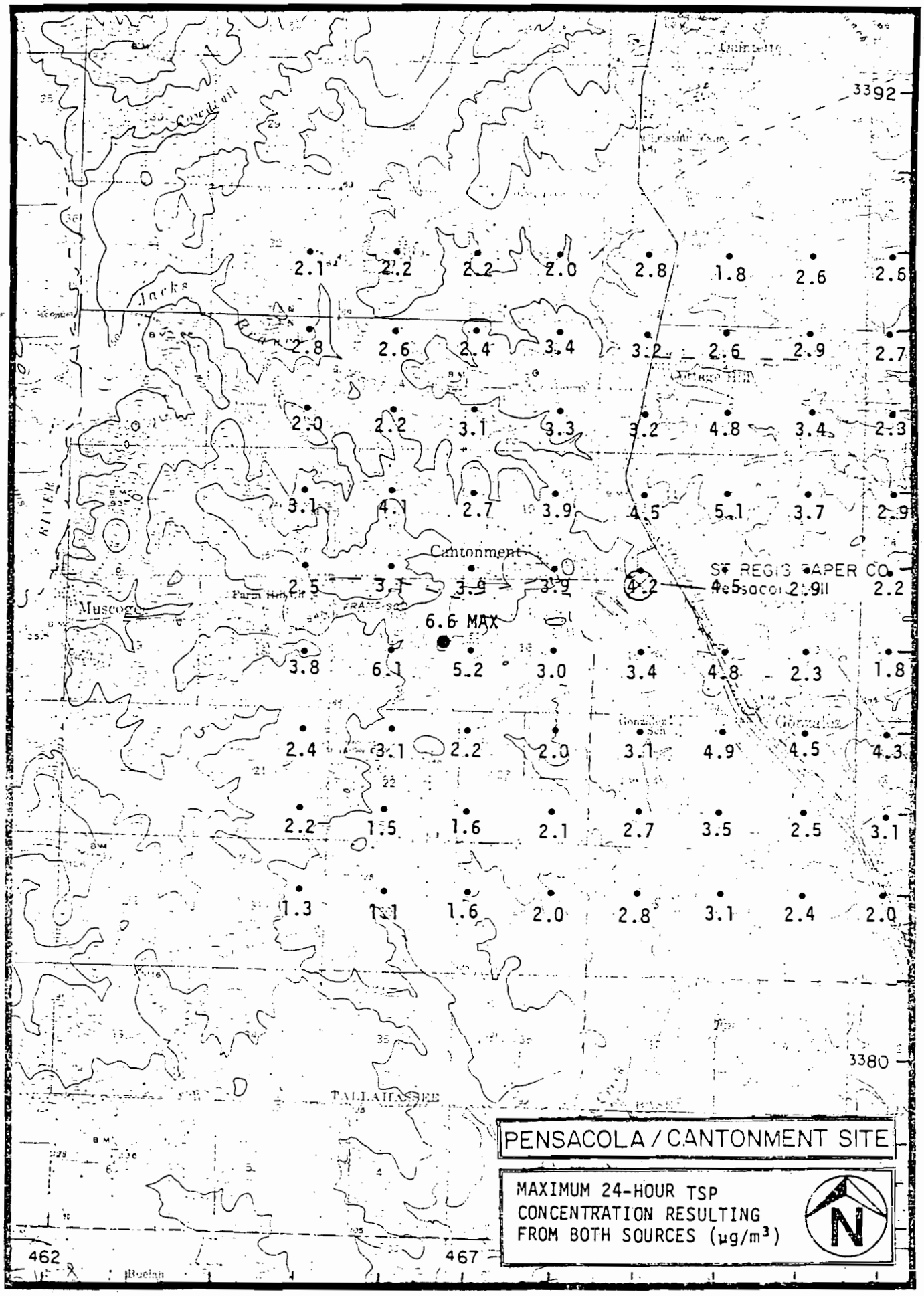


FIGURE VI-4


3392
2.1 2.2 2.2 2.0 2.8 1.8 2.6 2.6
2.8 2.6 2.4 3.4 3.2 2.6 2.9 2.7
2.0 2.2 3.1 3.3 3.2 4.8 3.4 2.3
3.1 4.1 2.7 3.9 4.5 5.1 3.7 2.9
Cantonment
ST REGIS PAPER CO.
2.5 3.7 3.9 3.9 4.2 4.5 2.9 2.2
6.6 MAX
3.8 6.1 5.2 3.0 3.4 4.8 2.3 1.8
2.4 3.1 2.2 2.0 3.1 4.9 4.5 4.3
2.2 1.5 1.6 2.1 2.7 3.5 2.5 3.1
1.3 1.1 1.6 2.0 2.8 3.1 2.4 2.0
3380
TALLAHASSEE
PENSACOLA / CANTONMENT SITE
MAXIMUM 24-HOUR TSP
CONCENTRATION RESULTING
FROM BOTH SOURCES (µg/m³)
N
462
467

VOC emissions. No PSD increments have been established for VOC emissions. For a nonattainment area, however, there are specific offset requirements. Although Escambia County, Florida is designated as unclassifiable, Mobile County, Alabama is a nonattainment area, and the potential impact of the St. Regis VOC sources upon Mobile must be considered.

Because no photochemical dispersion model currently exists which can adequately assess the air quality impact of a single VOC source, EPA has established a general approximation of the area around a nonattainment area in which a source would reasonably have an impact upon a nonattainment area. This area is defined as 36 hours travel time under wind conditions associated with oxidant concentrations exceeding the NAAQS. This distance is based upon evidence which suggests that precursor emissions which occur within 36 hours travel time of each other interact to form oxidant. In addition, EPA allows an applicant to demonstrate that its VOC and NO_x would have a minimal impact on an area exceeding the standards. Such considerations are appropriate only for remote rural sources whose emissions would be very unlikely to interact with other significant sources of VOC or NO_x to form additional oxidant.

In order to analyze the impact of VOC and NO_x emissions from the bark boiler and calciner, the following three-step procedure was used:

1. The nature of the VOC and NO_x emissions from the bark boiler and calciner were defined in order to characterize the plumes.
2. The impact of the plumes upon air quality near the plant was assessed.
3. The potential of the plumes for impacting air quality in Mobile was assessed by considering the meteorological aspects of exceedances in Mobile, the 10-year average wind frequency, and the dispersion of VOC and NO_x by the time that the plumes might reach Mobile.

The results of these three analyses are presented below along with the conclusions resulting from them.

VOC Emissions and Interactions

Volatile Organic Compounds (VOC) include all forms of hydrocarbon compounds which are generally in the vapor phase at ordinary temperatures. Generally this restricts consideration to those with carbon number equal to 10 or less. The most common compound in this group is methane which is relatively inert photochemically and measurements typically try to separate

out the methane from the photochemically active non-methane volatile organic compounds. EPA has listed other compounds for which there need not be control strategies in Table 1 of their "Recommended Policy on Control of Volatile Organic Compounds" (42FR35314, July 8, 1977). In the following, reactive VOC should be construed to exclude methane and the Table 1 compounds listed by EPA.

ES has determined the VOC emissions from the new bark boiler to be principally ethylene. The total VOC emissions will be 54 tons/year (refer to Table IV-1). In the laboratory combustion of pine slash samples, in addition to methane and ethylene, small amounts of ethane, acetylene, and propylene and traces of C_4 and C_5 olefins are produced[1]. The VOC emissions from the calciner total 22 tons/year, which is also mostly ethylene. The NRC[1] reports that α-pinene, methyl alcohol, and, to a lesser extent, acetone are the major organic compounds emitted from kraft paper mills (sulfur compounds excluded).

In addition to the VOC emissions, 875 tons/year of oxides of nitrogen will be emitted from the bark boiler and 67 tons per year from the calciner. Thus, in the two effluent streams, the reactive VOC/NO_x ratio will be 0.062 for the bark boiler and 0.33 for the calciner. Finally, the bark boiler will emit 706 tons/year of sulfur dioxide and the calciner, 22 tons/year.

The principal interactions of concern among these gases begin with the oxidation of the hydrocarbons by solar radiation, free-radical chain processes, and many complex and as yet not fully explored reactions. End products such as aerosols, aldehydes, ozone, and peroxyacetylnitrate (PAN) are typically associated with urban smog. Initially nitrogen dioxide and aldehydes are produced as the nitric oxide and hydrocarbons are consumed. As the nitric oxide is exhausted, the nitrogen dioxide passes through a maximum, for its photodissociation leads to the formation of ozone, PAN and other oxidants. In the presence of sulfur dioxide other complexities enter which have not been fully studied. One result, however, is the increased production of aerosol, in particular sulfuric acid aerosol, as a result of the oxidation of sulfur dioxide.

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[1] Vapor-Phase Organic Pollutants, National Research Council Committee on Medical and Biological Affects of Environmental Pollutants, National Academy of Sciences, Washington, D.C., 1976.

There is a fundamental difference, however, between automobile exhaust and the effluent from either the St. Regis bark boiler or the calciner, and that is the reactive VOC/NO_x ratio. In urban atmospheres where the dominant hydrocarbon source is clearly the automobile, reactive VOC/NO_x ratios vary from 1.5 to 24 to 1[1]. In smog chamber studies covering this range of VOC/NO_x ratio the same source reported that the lower the ratio the lower the production of aldehydes, the lower the rate of oxidant formation, and the lower the percent NO_x reacted. In both the St. Regis plumes the oxides of nitrogen dominate the hydrocarbons which should make these plumes nearly nonreactive[2]. In fact, rather than producing ozone these plumes may well be ozone scavenging plumes, reducing the natural background rather than adding to it.

Near-Site Impact

The modeling results for TSP can be scaled using the ratio of TSP to VOC emissions. This will give fairly good estimates of the hydrocarbon concentrations which can be expected near the St. Regis plant if the hydrocarbon were inert. We find 3-hour concentrations of about 8 $\mu g/m^3$ as the maximum to be expected from the calciner; about 3 $\mu g/m^3$ from the bark boiler. Since they have different stack parameters, the two maxima do not occur at the same point. However, a 3-hour maximum of about 8 $\mu g/m^3$ (0.0120 ppm) should be the maximum VOC concentration and this will occur within 1 km of the St. Regis emission points.

Twenty-four hour maximum concentrations would be rather smaller and annual contributions almost negligible. The combined 24-hour maximum was estimated at 5 $\mu g/m^3$ (0.0075 ppm) and the annual maximum should be less than 0.5 $\mu g/m^3$ (0.750 ppm). Again, these maxima will fall within 1 km, perhaps within the St. Regis property line. At a distance of 5 km from the sources, maxima for all averaging periods will be 20% of these close-in values, or less.

Adverse effects on man and vegetation are commonly associated with the

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1 Effects of the Ratio of Hydrocarbon to Oxides of Nitrogen in Irradiated Auto Exhaust be Merill W. Korth, U.S. Dept. of Health, Education, and Welfare, Public Health Service, Cincinatti, Ohio, 1966.

2 Procedures for Quantifying Relationships Between Photochemical Oxidants and Precursors: Supporting Documentation, U.S. EPA, EPA-450/2-77-0216, MDAD, OAQPS, Research Triangle Park, North Carolina, February 1978.

oxygenated, irradiated reactive VOC products: aldehydes, peroxyacetylnitrate, ozone, and others. However, as mentioned above, because of the NO_x excess over hydrocarbons in both effluent streams reactions to produce these harmful byproducts will be minimal. This is expecially likely to be the case close in where concentrations reach their maximum values. Here the plumes may well be ozone scavenging and deplete the ambient supply of ozone. Farther out the plume may well become reactive and produce the harmful species. However, by the time 5 km is reached, concentrations will be 20% of the close-in values or less and no significant impact will be possible.

Impact on Mobile

The provisions of 40 CFR 51.18, Appendix S, Emission Offset Interpretive Ruling (Section II C, Review of specified sources for air quality impact) include the possibility of exemption of a VOC source from emission offset requirements if the source owner can demonstrate that the emissions from the proposed source will have virtually no effect upon an area that exceeds the NAAQS for photochemical oxidant (ozone). The nearest nonattainment area is Mobile County. The monitors at which the violations occurred in 1976, 77 and 78 are in the immediate vicinity of the city of Mobile. They lie about 70 km from St. Regis on an approximate heading of 280°. The argument is made in this section that at this distance from the source the impact is entirely negligible. The basis for this statement is threefold: 1) the great majority of the exceedances in the past three years have occurred without any possible contribution from the St. Regis area, suggesting that the significant factors lie elsewhere; (2) it would be a fairly rare event to have the plume pass over the city of Mobile for a long enough period during the time of ozone formation; (3) the plume under worst meteorological conditions would be very dilute and a minimal impact would be expected.

Engineering-Science considered an elaborate mesoscale analysis for each ozone standard exceedance. There are seven surface observing stations which could be used for making hourly streamline analyses: Pascagoula, Mobile, Mobile Point, Pensacola, Milton, Crestview and Eglin Air Force Base. From these streamline maps an hourly transport vector could have been obtained for each of the 36 hours prior to the exceedance at Mobile in such a way that each vector represented the distance the plume moved in each hour. When superimposed on a common base map, the end points of the most recently added vector would trace out the envelope of the St. Regis plume. However, this elaborate

procedure has only the appearance of great precision and has actually the same technical and logical problems of the method selected.

The problems with any plume tracking based on surface wind observations are that the surface wind does not represent very well the wind at the effective plume height which actually determines the transport vector; the station density is not really adequate for detailed streamline analysis because errors due to microscale circulation features, such as urban heat island and land-sea breeze effects, cannot be adequately assessed; and the exceedances generally occur when the winds are weak and variable and most prone to errors of measurement. Furthermore, without a detailed emission inventory along each trajectory there is no sure way of countering the implicit but perhaps false argument that if the St. Regis plume tracks ultimately into Mobile County prior to an exceedance it has contributed to it. Finally, sampling variability makes it difficult to generalize. In view of these difficulties, Engineering-Science decided on a simpler analysis which should be of comparable accuracy.

Analysis of Ozone Exceedance at Mobile

The ozone level has exceeded the 0.12 ppm standard at Mobile ten times in the last three years. An analysis of the meteorological conditions leading to these exceedances was made to determine whether a plume from St. Regis could possibly be a contributor. NOAA's Daily Weather Map was the basic source of weather data. Geostrophic winds were determined from the pressure gradient which should provide a better estimate of the transport wind than the surface wind observations. These transport winds were computed for the day of the exceedance. It was assumed that the plume travelled with the geostrophic wind. A conclusion was drawn in each case as to the possibility of a St. Regis contribution. These analyses are presented in Appendix C.

In 7 of the 10 cases, there could clearly have been no contribution from St. Regis. In 2 of the 10 cases, there might have been a contribution, but it is more likely that the plume passed 25 miles north and east of Mobile. In 1 case of 10, it was possible, even likely, that there was a St. Regis contribution. Even in this case, however, there were westerly surface winds at Mobile which were opposite to the geostrophic flow. A microscale analysis might reveal local circulations that kept the St. Regis plume from contributing.

The result of this analysis is that the exceedances observed at Mobile have been associated mainly with wind fields that would blow the St. Regis

plume away from Mobile. Thus, the significant factors leading to the Mobile exceedances lie elsewhere.

Analysis of Wind Frequency Data

The above analysis indicates that ozone exceedances at Mobile are very rarely associated with meteorological conditions which would cause St. Regis sources to impact Mobile. A further analysis was conducted to determine the frequency of wind in a 22.5° sector which would result in the St. Regis plume reaching the Mobile area.

A STAR summary of ten years of meteorological data collected at Milton, Florida which is just east of Cantonment is included in Appendix B. The probability of a wind within a 22.5° sector centered on 100° is 6.62%, i.e., during these ten years of record winds from this direction were observed 6.62% of the time. However, only the portion of the time during which stable conditions prevail should be considered because it is only under stable conditions that the plumes will remain intact. Thus, during the ten years of record, the wind blew from a direction and under stable conditions which could carry a St. Regis plume to Mobile only 2.64% of the time.

The probability of an impact by St. Regis upon Mobile can be calculated if the following assumptions are made:

1. The hourly observations are serially correlated such that only every third hourly observation can be considered independent.
2. Stable conditions occur only once a day during early morning.
3. Stable conditions persist for the entire six hour period of ozone formation which is unlikely.

Based upon these assumptions, the probability of two successive 3-hourly observations being from 100° is 0.0007 which is 0.0264^2. Thus, the plume from St. Regis could be expected to impact Mobile on one day every four years (365 x 0.0007 = 0.25).

Dispersion Analysis

Using Turner's Workbook of Atmospheric Dispersion Estimates, we can assess the probable ground-level concentration of a plume after travelling 70 km. A stack height of 50 m, zero plume rise, a mixing height of 625 m and a mean transport wind of 5.5 m sec^{-1} (from Holzworth's Mixing Heights, Wind Speeds, and Potential for Urban Air Pollution Throughout the Contiguous

United States), and stability F were assumed. At a distance of 70 km, with a source intensity of 2.88 g/sec (100 tons/year), the ground-level concentration of VOC would be about 1.3 $\mu g/m^3$ or 2 ppb. This is a short-term concentration and is generally multiplied by a meteorological persistence factor of about 0.7 to give a long-term, say 6 to 8 hour, value. Thus, the concentration is more likely to be 1.4 ppb.

The above estimate rests upon the further assumption that the VOC will be inert. In fact, the major constituent of the plumes, ethylene, is quite reactive. It would be expected that the amount of unreacted VOC still in the plume when it reaches Mobile would be minimal, i.e., much less than 1.4 ppb.

Finally, the VOC concentration in the St. Regis plume as it reaches Mobile can be compared to the concentration that might result from leaf litter. Leaf litter in the Florida area emits reactive hydrocarbons at a rate of 162 $\mu g/m^2$ hr.[1] If complete mixing within a 625 m layer and a transport wind of 5.5 m/sec are assumed, the VOC concentration at Mobile resulting from hydrocarbon exudation by leaf litter over the 70 km distance from St. Regis would be 1.4 ppb. Thus, the VOC emissions at St. Regis could be reasonably expected to have an impact on ozone exceedances at Mobile comparable to that resulting from leaf litter.

Conclusions

Based upon the analyses above, the following conclusions concerning the potential impact of the VOC emissions from the bark boiler and calciner upon ozone attainment can be drawn:

1. The VOC/NO_x ratio in the St. Regis plumes is such that ozone formation could be expected to be retarded. The plumes might even scavenge ozone.
2. The impact of the plumes near the St. Regis plant, where ambient non-methane hydrocarbon concentrations resulting from the plumes would be a maximum, should be minimal.
3. During only one of ten ozone exceedances in Mobile which were investigated, were meteorological conditions such that St. Regis

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[1] Testing of Hydrocarbon Emissions From Vegetation Leaf Litter, and Aquatic Surfaces and Development of a Methodology for Compiling Biogenic Emission Inventories, by Partick R. Zimmerman. Prepared for U. S. EPA, OAQPS, Research Triangle Park, North Carolina 27711, February 1979.

sources would be likely to have had any impact. Even during this one exceedance, local meteorological conditions at Mobile might have precluded any impact from St. Regis.

4. Only once every four years would the St. Regis plumes have any probability of reaching Mobile based upon an analysis of ten years of wind frequency data.
5. If the plumes were to reach Mobile, the resulting VOC concentration would be so low as to be indistinguishable from that which might result from leaf litter.

Thus, St. Regis should not be required to offset its VOC emissions because there is little likelihood that the impact of these emissions upon ozone air quality in Mobile would be other than minimal.

IMPACT ON SOILS, VEGETATION, AND VISIBILITY

The secondary NAAQS are primarily designed to protect the welfare of the public. Dangers to the public welfare against which the secondary standards are designed to protect, include vegetation damage, harmful effects to the soil, and impairments to visibility. The secondary NAAQS will not be violated because of any of the emissions from these proposed sources.

The pollutant with the greatest potential for causing vegetation damage is sulfur dioxide. The maximum 3-hour sulfur dioxide concentration resulting from these proposed sources is 95.3 $\mu g/m^3$, which is about one-fifth of the Class II PSD increment. With such a low consumption of the increment, and the low 3-hour concentrations observed in the Cantonment area, there is no danger that the secondary NAAQS will be violated. At these concentrations, vegetation should not be damaged.

The particulate emissions from the boiler and calciner will be similar to fly ash. Since most of the particulate will be very small because of the control devices employed to remove larger particles, little should be deposited from the plume. Although minute quantities of trace metals may be present, any effect of these emissions upon the soil should be negligible. The maximum impact from the plant should occur within 2-5 km.

Because of the water vapor content of the plumes from these two new sources, the plumes should be visibile for a few hundred meters beyond the stacks. Although the particle size in the plumes will be quite small, the

plumes should not be visible beyond the dissipation of the steam because of the dilution. However, since the nearest Class I PSD area is about 100 miles away, no effect should be noticeable in any Class I area. The particles should not serve as condensation nuclei because of their size.

APPENDIX A

DISPERSION MODELING

To determine the impact of the bark boiler and mill expansion particulate and SO_2 emissions on ambient air quality in the vicinity of the plant, dispersion analyses have been conducted. Two basic dispersion models have been used in this evaluation, the Air Quality Display Model (AQDM) for predicting annual average impact and a modified version of the Single Source (CRSTER) Model for predicting 24-hour concentrations of TSP and SO_2 and 3-hour SO_2 concentrations.

DESCRIPTION OF MODELS

Present day air quality analyses are conducted using mathematical dispersion models that date back to the 1930's. The models are generally Gaussian (cone) shaped and require inputs which include stack characteristics, mass emission rates, and meteorological data. The two basic dispersion models used in this analysis were the AQDM and CRSTER Model. Both models represent the state-of-the-art in dispersion modeling and are consistent with the recommended analytical techniques of the U.S. EPA. The models do not provide infallible predictions; however with accurate input data, the models have been used for many different geographic areas.

Air Quality Display Model (AQDM)

The model which was used to predict the annual average impact of the mill facility on ambient TSP and SO_2 levels is the AQDM. This model was developed for the U.S. Department of Health, Education and Welfare, National Air Pollution Control Administration which is the predecessor organization of the U.S. EPA. The model was completed in 1969 and was intended to help state and local air pollution control agencies evaluate the effect of emission regulations on ambient air quality. The AQDM was originally developed by Martin-Tikvart in 1968 and they have made several simplifying assumptions that differ from the work completed by Turner, Pasquill-Gifford, and others. These modifications will be discussed later.

The specific computer program was obtained from the U.S. EPA in North Carolina in the fall of 1973 with program changes supplied by EPA for incorporating the Briggs plume rise equation. The 1969 version of AQDM utilized the Holland equation when calculating plume height. All AQDM runs were made on an IBM 3033 computer.

The model inputs included meteorological and point source emission data. The emission stack configuration parameters were also required to estimate annual average ground level concentrations of TSP. Other inputs regarding study area location and grid spacing were also included.

Assumptions of the Air Quality Display Model

There is very little difference in any of the presently published air quality dispersion models. All of the models assume some form of conical dispersion pattern and make assumptions about the terrain and secondary atmospheric reactions which help reduce the number of input parameters. Frequently, investigators tailor a model to their local conditions by measuring air quality and then apply correction factors to different portions of the dispersion equation.

It is important to point out key assumptions that have been made in simplifying the basic equations for use in this dispersion model. The assumptions incorporated in the Gaussian plume equation and the AQDM can be summarized as follows:

1. The plume description represents conditions averaged over a time period of several minutes. At any given time, the behavior of the plume is more complex, particularly during unstable conditions.

2. The pollutant has neutral buoyancy in the atmosphere; that is, no fall-out is modeled by the equation. Most particulates with equivalent diameters less than 20 microns satisfy this assumption.

3. The time-averaged plume exhibits a Gaussian distribution of concentrations in the cross-plume and vertical dimensions. The measures of the spread in both directions (the standard deviations) are considered to be a function of downwind distance and atmospheric stability only.

4. The plume is assumed to be steady state, resulting from a continuous and constant source.

Plume Behavior

The AQDM was developed to estimate ambient air concentrations over a very large built up metropolitan area. The developers of the AQDM used Chicago as their test city and obvious inputs to the model included a number of area, point, and transportation sources. For calibration of the model, the developers had available an abundance of air quality data representing various averaging times collected over several years.

One of the key differences that has been made in the current AQDM from that of the earlier investigators is the treatment of the crosswind deviations (σ_y). Most investigators assume the Gaussian distribution. The AQDM, on the other hand, uses a linear distribution. In general, the linear distribution in the AQDM is more applicable to large built up metropolitan areas where channeling, turbulence, and multiple sources create a more uniform distribution of the ground level concentrations. In rural situations involving several point sources, other investigators have used the Gaussian distribution for the σ_y's and σ_z's.† The effect on ground level concentrations of using a linear distribution would probably be to estimate lower maximum ground level values. Furthermore, the expected location of the maximum may differ from those formulae assuming a Gaussian distribution for σ_y. Figure A-1 is the classical form of the Gaussian Distribution.

The concentration (x) at a position (x, y, z) for substances emitted at (0, 0, h) is given in the figure. An estimate of the concentration for a specific source-receptor relationship is obtained by choosing a representative speed for each wind class and solving the equation for all wind speed and stability classes. The average concentration is obtained by summing all concentrations and weighting each one according to its frequency for the particular wind speed, wind direction, and stability class. To obtain the total concentration at a specific receptor, the results of the equation are summed over all sources.

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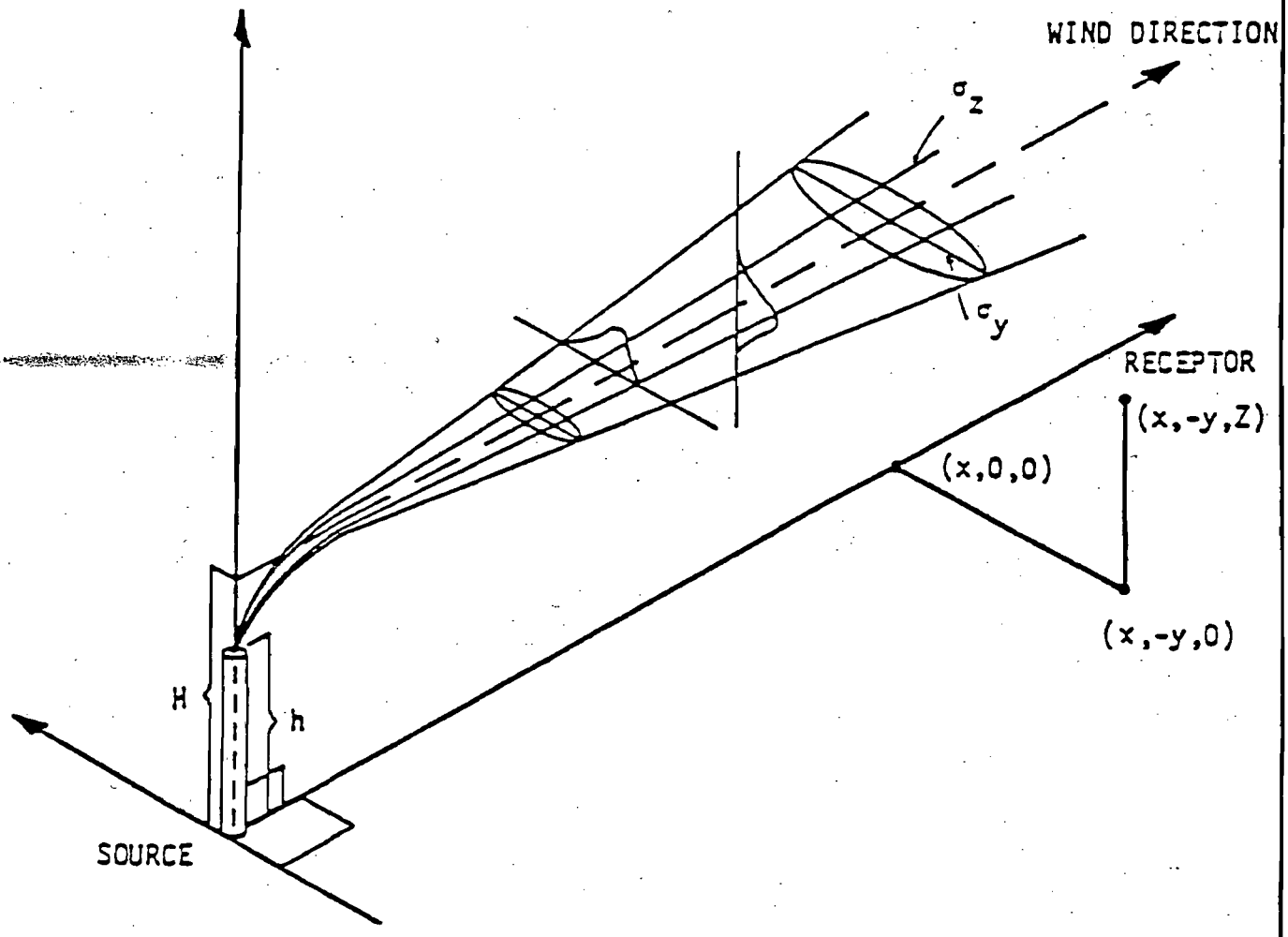
† Jepsen, A.F. and Weil, J.C., Maryland Power Plant Air Monitoring Program Preliminary Results, presented at APCA Meeting in Chicago, June 1973, (Paper No. 73-147).

DISPERSION PATTERN AND EQUATION



$$X_{x,y,z,H} = \frac{Q_m}{2\pi\ U\ \sigma_y\sigma_z}\left[\exp\ -\frac{1}{2}\left(\frac{y}{\sigma_y}\right)^2\right]\left\{\exp\left[-\frac{1}{2}\left(\frac{z-H}{\sigma_z}\right)^2\right]\right.$$

$$\left. + r\ \exp\left[-\frac{1}{2}\left(\frac{z+H}{\sigma_z}\right)^2\right]\right\}$$

where $X_{x,y,z}$ = concentration, gms/m^3 and commonly converted to $\mu g/m^3$

Q_m = emission rate, gms/sec

x,y,z = downwind locations, meters

U = wind speed, meters/second

H = effective stack height = f (h + bouyancy)

h = stack height

σ_y, σ_z = std, horizontal and vertical deviation, meters (depends on atmospheric stability classification A, B,.....F wind speed and distance downwind)

r = reflectivity of surface

The stack in Figure A-1 represents a typical elevated point source. The "effective stack height" (or effective height of emission release) is the height at which the plume center line becomes horizontal. The effective stack height is the sum of the physical stack height and an incremental factor related to the buoyancy and vertical momentum of the effluent.

Plume Rise

All plume rise formulae consider the rise due to two effects: momentum and buoyancy. The momentum term depends upon physical stack parameters, exit velocity and diameter; the buoyancy term depends upon heat parameters, heat emission rate or the difference between effluent and ambient air temperature. This immediately leads to a model of the form:

$$\Delta h = C_1 \frac{V_s d}{U} + C_2 \frac{Q_h^{C_3}}{u^{C_4}}$$

where Δh = plume rise

V_s = effluent exit velocity

d = stack diameter

Q_h = heat emission rate

u = wind speed

C = fitted constants

There are over 100 such formulae and probably 50 papers published reviewing and analyzing their accuracy and applicability. Without exception, the investigators have concluded that none predicts plume rise accurately under all meteorological conditions.

The AQDM originally utilized the Holland plume rise equation. In 1969, the Holland equation was in fact the preferred equation of the meteorological fraternity. Since then, however, Briggs published his (latest) equation in 1971 and provided supporting data to establish the validity of the estimates

provided by his equation. The Holland formula is now known to greatly underpredict plume rise while the Briggs formula is believed to be more accurate under most conditions. At the present time, EPA meteorologists are advising use of the Briggs equation.

Briggs concluded from dimensional analysis that:

$$\Delta h = \left[\frac{12.17F_m x}{u^2} + \frac{12.17Fx^2}{2u^3}\right] \quad 1/3$$

F_m is the momentum term and F is the buoyant term. x is downwind distance and because its value is squared in the buoyancy term, this effect will dominate beyond $x > 3\ h_s$, the actual stack height. Briggs concluded that momentum rise could be ignored, a conservative assumption, and found a best fit constant.

$$\Delta h = \frac{1.6F^{1/3}x^{2/3}}{u}$$

F is the flux of bouyant force/$\pi\rho_a$. ρ_a is the density of the ambient air. Force flux is equal to mass flux times the acceleration.

Therefore:

$$F = \frac{1}{\pi\rho_a} \left(\pi r^2 V_s \rho_e\right) \left(g \frac{T_s - T_a}{T_s}\right) ,$$

where ρ_e is the density of the effluent, g is gravity force, and T_s and T_a are stack and ambient temperature. If $\rho_e = \rho_a$, another conservation assumption, then

$$F = gr^2 V_s \left(\frac{T_s - T_a}{T_s}\right)$$

The Briggs formula above predicts plume rise within a short distance downwind from the stack. As the distance increases, ambient air is entrained into the plume and under stable conditions a deceleration of the plume is exerted. This force is defined by the equation,

$$S = \frac{g}{T_a} \frac{\partial\theta}{\partial z} ,$$

where $\frac{\partial\theta}{\partial z}$ is the lapse rate of the potential temperature

$g = 9.8\ msec^{-1}$

$T_a = 293°K$, the mean annual temperature for most of the U.S.

$\frac{\partial \theta}{\partial z} = 1.75°K\ (100\ m)^{-1}$, a moderately stable lapse rate

$$S = \frac{9.8}{293} \times \frac{1.75}{100} = 5.85 \times 10^{-4}\ sec^{-2}$$

Briggs estimated the maximum rise under stable conditions as

$$\Delta h = 2.9 \left(\frac{F}{uS}\right)^{1/3}$$

Using the value of S calculated above, and the formula for F, we arrive at the plume rise equation for stable conditions (classes E and F):

$$h = 74.2 \left[\left(\frac{V_s r^2}{u}\right)\left(\frac{T_s - T_a}{T_s}\right)\right]^{1/3}$$

For very low winds, an even greater plume rise would be expected:

$$\Delta h = 5.0 \frac{F^{1/4}}{S^{3/8}}$$

Under the above conditions, this would result in a plume rise of 178 m. We have elected not to use this low wind speed estimate of plume rise because of our desire to be conservative. Higher values for the effective stack height will result in lower ground line concentrations when using the dispersion equations.

In neutral and unstable conditions, ambient air is again entrained into the plume but does not exert a retarding force. The plume continues to rise until it is dominated by atmospheric turbulence. Briggs estimated a conservative approximation:

$$\Delta h = 1.6 \frac{F^{1/3}}{u} \left(3x^*\right)^{2/3}$$

where $x^* = 2.16\ F^{2/5} h_s^{3/5}$. Empirical modifications to this formula recommended by EPA† have been used in this study to yield:

$$\Delta h = 1.6 \frac{F^{1/3}}{u} \left(3.5\right)^{2/3}$$

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† Personal correspondence with Joseph Tikvart, EPA, North Carolina, November 28, 1973.

where $x^* = 14\ F^{5/8}$, $F < 55$

$x^* = 34\ F^{2/5}$, $F \geq 55$

The EPA modifications follow:

If the momentum term F is simplified to

$$F = 9.8\ r^2 V_s \left(\frac{T_s - T_a}{T_s}\right)$$

$$= 2.45\ d^2\ V_s \left(\frac{T_s - T_a}{T_s}\right) \qquad r = \frac{d}{2}$$

and, if $ABRG = d^2 V_s \left(\frac{T_s - T_a}{T_s}\right)$

$$F = 2.45\ ABRG$$

then

$$\Delta hu = 1.6(2.45\ ABRG)^{1/3}\ \ 3.5\ (14)\ (2.45\ ABRG)^{5/8}\ \ 2/3$$

which reduces to:

$$\Delta hu = 42\ ABRG^{0.75}$$

Similarly, for the case of $F > 55$,

$$\Delta hu = 66.3\ ABRG^{0.6}$$

These equations are used in the AQDM.

One simplifying assumption has been made in incorporating the Briggs plume rise equation into the model by the EPA. The stable conditions (E and F) are calculated with this latter equation instead of having two routines for plume rise (one for stable and one for all other conditions). As a result of this assumption, a conservative estimate of ground concentrations (from a lower plume height) will be calculated.†

† This is strictly true only if the wind speed is greater than 3.5 meters per second. However, under lower wind speeds, the plume rise is ordinarily high and will not show that much of a difference.

Moses[†], et. al., made a comprehensive survey of the accuracy and suitability of some 16 plume rise formulae for power plant flue gases. The results of this survey indicate that the Concave #2 formula gave the best results. However, where the source stacks were of small diameter, the Briggs was the best formula. The underprediction of the Holland formula was evident. In view of the known preference for the Briggs formula by AEC,[††] the approval of this formula by EPA, the results of the Moses survey, and a growing acceptance of the Briggs formula as the most accurate, it is believed that its use in this study is warranted.

Modified CRSTER Model

The model which was used to predict the maximum 24-hour impact of the power plant on ambient total suspended particulate (TSP) levels is a modified version of the CRSTER Model. The original single source model was developed by the Meteorology Laboratory of the U.S. EPA in 1972. Since that time, numerous modifications and revisions have been added to the computer program to increase its utility. Recently, ES expanded the capabilities of CRSTER. These modifications will be discussed later.

The types of application for which the model was designed include:

- o stack design studies;
- o combustion source permit applications;
- o regulatory variance evaluation;
- o monitoring network design;
- o control strategy evaluation for SIP's;
- o fuel conversion studies;
- o control technology evaluation;
- o design of supplementary control systems;
- o new source review; and
- o prevention of significant deterioration.

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† Harry Moses and Martin R. Kraimer, Paper No. 71-61, APCA Annual Meeting Atlantic City, 1971.

†† "Meteorology and Atomic Energy", U.S. Atomic Energy Commission, Washington. D.C., July 1968.

The model has been successfully applied previously to these types of problems.

Modified CRSTER is a steady state Gaussian plume technique applicable to both rural and urban areas in uneven terrain. The purpose of the technique is to: determine the maximum 24-hour concentration over a one year period due to point source emissions, determine the meteorological conditions which cause the maximum concentrations, and store concentration information useful in calculating frequency distributions for various averaging times. The concentration for each hour of the year is calculated and midnight-to-midnight averages are determined for each 24-hour period.

The model inputs included meteorological data, point source emission data, and receptor elevations. The emission stack configuration parameters were also required to estimate 24-hour ground level concentrations of TSP. Other inputs regarding study area location and grid spacing were also included. Initially, a grid spacing of 1.0 kilometer was employed. A second run of the dispersion model was made using a refined grid spacing of 0.1 kilometer around the initially predicted maximum receptor site.

Assumptions of the Modified CRSTER Model

The modified CRSTER is based on a recent version of the Gaussian plume equation. The model assumes a continuous emission source, steady-state downwind plume, and a Gaussian distribution for concentrations of pollutants within the plume in both the crosswind and vertical directions. Plume rise is estimated using equations proposed by Briggs for hot, buoyant plumes. As the plume expands due to eddy diffusion, it is diluted and transported downwind by the mean wind. The rate of expansion is characterized by a series of empirical dispersion coefficients which are dependent on the stability of the atmosphere, as determined in studies made by Pasquill and Gifford, and reported by Turner.

The assumptions incorporated in the Gaussian plume equation and the modified CRSTER model can be summarized as follows:

1. The pollutant emitted is a stable gas or aerosol which remains suspended in the air and participates in the turbulent movement of the atmosphere; none of the material is removed as the plume advects and diffuses downwind and there is complete reflection at the ground.

2. The pollutant material within the plume takes on a Gaussian distribution in both the horizontal crosswind and vertical directions, described by empirical dispersion parameters σ_y and σ_z.

3. The plume is assumed to be steady-state, resulting from a continuous and constant source.

Plume Behavior

As previously mentioned, the modified CRSTER model assumes a continuous emissions source, steady-state downwind plume, and a Gaussian distribution for concentrations of particulates within the plume in both the crosswind and vertical directions. The general Gaussian plume equation used in the modified CRSTER model for a continuous emission source gives the local concentration X of a gas or aerosol at a ground-level location (x,y) by the following expression:

$$X(x,y) = \frac{Q}{\pi \sigma_y \sigma_z u} \exp\left[-\frac{1}{2}\left(\frac{y}{\sigma_y}\right)\right]^2 \exp\left[-\frac{1}{2}\left(\frac{H}{\sigma_z}\right)\right]^2$$

where the wind is advecting the plume at a speed u along the x-axis and dispersing it along the crosswind and vertical direction with diffusion coefficients σ_y, and σ_z, respectively. The pollutant emission from the source is at a uniform rate Q and is assumed to be released at an "effective stack height" H. It is assumed that complete reflection of the plume takes place at the earth's surface, i.e., there is no atmospheric transformation or deposition at the surface. The concentration X is an average over the time interval represented by σ_y and σ_z. The modified CRSTER Model calculates short-term concentrations and uses these directly as 1-hour average concentrations without consideration of plume history, i.e., each 1-hour period is completely independent.

The empirical dispersion coefficients, σ_y and σ_z, used in the modified CRSTER model are those suggested by Pasquill and Gifford and reported by Turner. Values for σ_y and σ_z are represented as a function of downwind distance from the emissions source and the stability of the atmosphere. These values are representative for a sampling time of up to about 1-hour and were developed based on aerometric measurements taken in open, level to gently rolling country.

Atmospheric stability is determined indirectly from the amount of incoming solar radiation at the surface (insolation), and the wind speed. Pasquill suggested a six category classification scheme from A for extremely unstable to F for moderately stable, based on the range of these two parameters. Because solar radiation is not a widely measured parameter, Turner developed an objective classification method based on cloud cover, ceiling height, and solar elevation. The modified CRSTER model calculates the stability classification by this method for each hour from the recorded meteorological observations.

The wind speed required for input to the modified CRSTER model is considered to be representative of the conditions throughout the vertical height interval in which the plume is dispersing. The wind at the stack elevation is commonly used as an approximation to this condition. Because the wind is generally measured near 7 meters by the National Weather Service (NWS), an adjustment is made in the model by the following power law relationship:

$$u = u_o \, (h/7)^p$$

where

u = hourly wind speed at stack height (m s^{-1})

u_o = hourly wind speed near 7m above the ground (m s^{-1})

h = stack height (m)

p = wind profile exponent

The profile exponent p is a function of stability and has the values given in Table A-1. The adjusted wind speed is used by the model to calculate plume rise and dilution.

Turbulent mixing and vertical diffusion of a plume is often limited by the existence of a stable layer of air aloft, i.e., an inversion layer. The effects of limited mixing (or plume "trapping") on plume dispersion are incorporated into the modified CRSTER model by the assumption that the plume is completely reflected at the mixing height, as well as the ground. Since multiple reflections are possible, trapping is simulated using the method of

TABLE A-1

WIND SPEED PROFILE EXPONENT

PASQUILL STABILITY CLASS	WIND SPEED PROFILE EXPONENT, P
A = extremely unstable	0.10
B = moderately unstable	0.15
C = slightly unstable	0.20
D = neutral	0.25
E = slightly stable	0.30
F = moderately stable	0.30

multiple images proposed by Bierly and Hewson.[†] In this procedure, each reflection is represented by an "image plume" from an imaginary source with a "stack height" equal to the vertical distance travelled by the plume "edge" to the point of ground reflection. The reflections between the mixing height (L) and the ground are represented by the convergent infinite series of Gaussian plume terms given in Table A-2. Another assumption is that whenever the plume centerline is above the mixing height at a given receptor location, there is no contribution from the plume at that receptor.

Plume Rise

The effective height of emission used in the Gaussian plume equation is defined as the sum of the physical stack height and the plume rise. Estimates of plume rise are required to predict the dispersion of continuous gaseous emissions possessing buoyancy. The rise of emission plumes above their source release height often accounts for a significant reduction in related ground-level concentrations.

Plume rise in the modified CRSTER model is estimated using equations proposed and later modified by Briggs. These equations are based on the assumption that plume rise depends on the inverse of the mean wind speed and is directly proportional to the 2/3 power of the downwind distance from the source, with different equations specified for the neutral-unstable conditions and the stable conditions. Only the final plume rise as predicted by Briggs is used in the modified CRSTER model. Briggs' plume rise equations are detailed below, where all symbols are defined in Table A-3.

- For unstable or neutral atmospheric conditions, the downwind distance of final plume rise is $x_f = 3.5\ x^*$, where

$$x^* = 14\ F^{5/8}, \text{ when } F < 55\ m^4\ s^{-3}$$

$$x^* = 34\ F^{2/5}, \text{ when } F \geq 55\ m^4\ s^{-3}.$$

The final plume rise under these conditions is

$$\Delta h = 1.6\ F^{1/3}\ (3.5\ x^*)^{2/3}\ u^{-1}.$$

[†] Bierly, E.W. and Hewson, E.W., "Some Restrictive Meteorological Conditions to be Considered in the Design of Stacks", Journal of Applied Meteorology, 1:383-390, March 1962.

TABLE A-2

MODIFIED GAUSSIAN PLUME EQUATIONS USED IN THE MODIFIED CRSTER MODEL

If $H \leq L$ and $\sigma_z \leq 1.6L$	$\chi = \frac{Q}{\pi \sigma_y \sigma_z u} \exp\left[-\frac{1}{2}\left(\frac{y}{\sigma_y}\right)^2\right] \sum_{N=-\infty}^{+\infty}{}^{(+k)}_{(-k)} \exp\left[-\frac{1}{2}\left(\frac{H+2NL}{\sigma_z}\right)^2\right]$
If $H \leq L$ and $\sigma_z > 1.6L$	$\chi = \frac{Q}{\sqrt{2\pi}\sigma_z Lu} \exp\left[-\frac{1}{2}\left(\frac{y}{\sigma_y}\right)^2\right]$
If $H > L$	$\chi = 0$

TABLE A-3

DEFINITION OF SYMBOLS USED IN BRIGGS' PLUME RISE EQUATIONS

SYMBOL	DEFINITION	UNITS
g	gravitational acceleration	$9.8\ m\ s^{-2}$
d	stack inside diameter at top	m
F	buoyancy flux parameter $[g\ v_s\ (d/2)^2\ (T_s - T/T_s)]$	$m^4\ s^{-3}$
x^*	distance at which atmospheric turbulence begins to dominate entrainment	m
Δh	plume rise above stack top	m
x	downwind distance from the source	m
T	ambient air temperature	$°K$
T_s	stack gas temperature	$°K$
u	mean wind speed from stack top to plume top	$m\ s^{-1}$
v_s	stack gas exit velocity	$m\ s^{-1}$
$\partial\theta/\partial z$	vertical potential temperature gradient from stack top to plume top	$°K\ m^{-1}$
s	restoring acceleration per unit vertical displacement for adiabatic motion in the atmosphere, a stability parameter	s^{-2}

- For stable atmospheric conditions, the downwind distance of final plume rise is $x_f = \pi u\ s^{-1/2}$, where

$$s = g\ \partial\theta/\partial z\ T^{-1}.$$

The plume rise is

$$\Delta h = \begin{cases} 2.4\ [F/(u\ s)]^{1/3}, & \text{for windy conditions} \\ 5\ F^{1/4}\ s^{-3/8}, & \text{for near calm conditions} \end{cases}$$

The final plume rise given by these formulae does not take cognizance of "negative" buoyancy due to cold plumes, or aerodynamic effects from flow fields around the stack or nearby tall buildings and prominent terrain. The final plume height used by the modified CRSTER model does not follow changes in terrain height, as described later in this appendix in the discussion of terrain considerations.

Urban-Rural Considerations

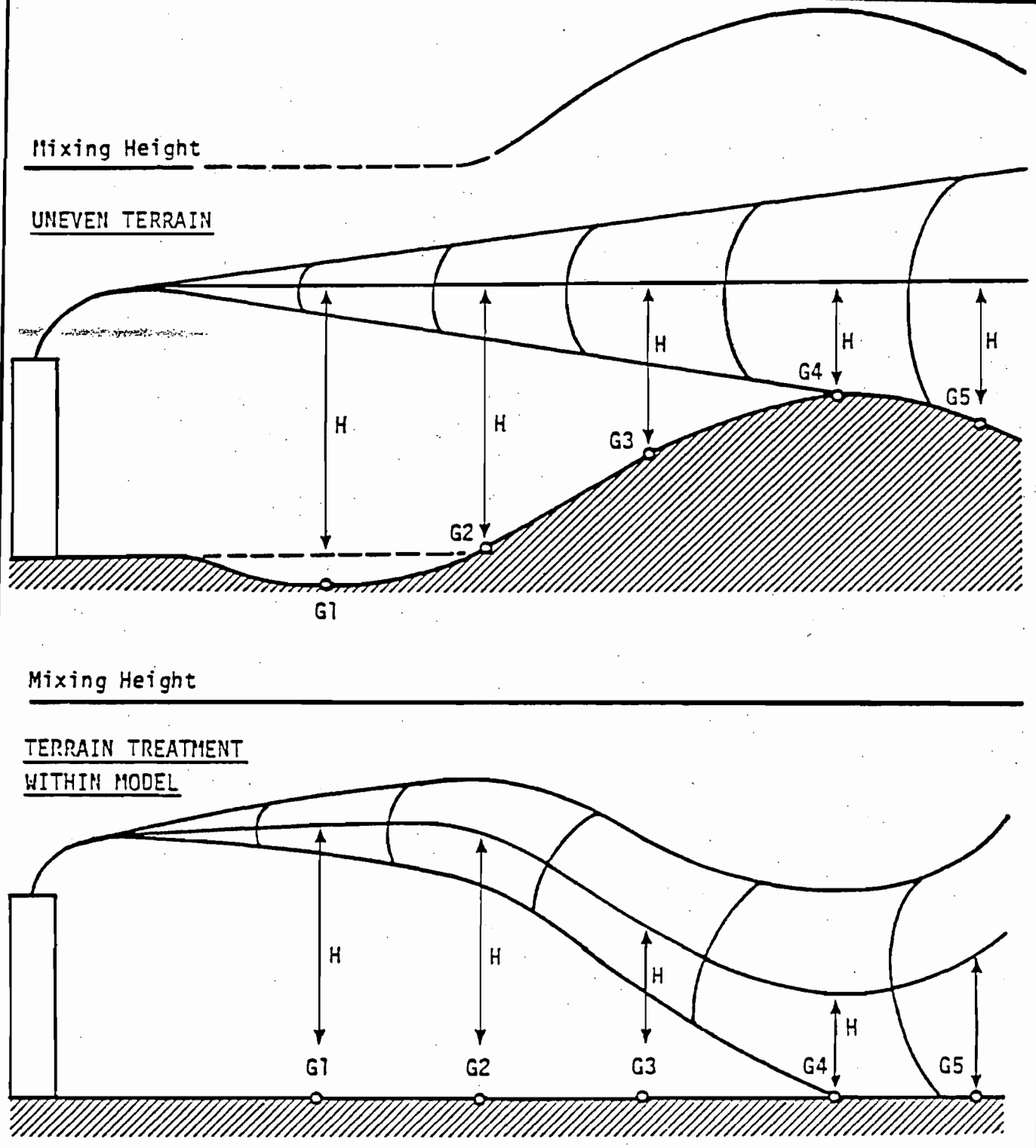
The principal difference between dispersion coefficients in rural and urban environments is associated with the occurrence of the nocturnal, ground-based temperature inversion. On calm, clear nights, radiational cooling can produce such an inversion, and hence stable atmospheric conditions, in a rural environment. Such inversions do not occur, though, in urban areas, due primarily to the influence of a city's larger surface roughness and the release of stored heat from structural surfaces, i.e., the urban heat island effect. Thus, stable atmospheric conditions do not occur near the ground in urban areas on calm, clear nights.

The modified CRSTER model accounts for these effects in both the choice of dispersion coefficients and mixing heights. If an urban application is indicated, stability categories E and F default to category D for the purpose of determining σ_y and σ_z. Separate sets of hourly mixing height data, for urban and rural environments, are input to the model and it chooses between these, depending on the conditions indicated. For the proposed bark boiler, a rural environment was selected for the purpose of short-term disperion modeling.

Terrain Considerations

The modified CRSTER is an uneven terrain model that takes into account certain changes in ground elevation between the point of source emissions (the plant) and the surrounding grid receptor points. The basic method used in the model for making terrain adjustments is illustrated in Figure A-2. For receptors with elevations greater than the stack elevation but less than the top of the lowest stack, the difference in elevation is subtracted from the effective plume height. The terrain adjustment made for any one receptor point does not affect concentrations at any other receptor point. When the height of a receptor is above the shortest stack height, plume impaction on surrounding terrain is possible and the model terminates. The model considers receptors below the ground elevation of the plant to be at plant elevation.

Figure A-2 also illustrates the mixing height assumption. This permits calculations to be made using the modified Gaussian equations without adding a vertical displacement term. This method of treating terrain adjustments assumes ground based receptors and is not equivalent to simply including a vertical coordinate term z in the Gaussian plume equation. The method would not imply any changes in terrain elevation at all. Rather, the value of z would specify the height at which the receptor point would be "floating" in the air, and reflections of the plume at the ground close to the stack, caused by elevated terrain, would not be simulated.



Note: G1-G5 are receptor points at 5 grid distances.

BASIC ILLUSTRATION OF THE METHOD FOR TERRAIN ADJUSTMENT IN THE MODIFIED CRSTER MODEL

APPENDIX B

METEOROLOGICAL CONSIDERATIONS

APPENDIX B

METEOROLOGICAL CONSIDERATIONS

All air pollutants emitted by point sources are transported and dispersed by meteorological and topographical conditions. The airborne cycle is initiated with the emission of the pollutants followed by their transport and diffusion through the atmosphere. The cycle is completed when the pollutants are deposited on vegetation, soil, and other surfaces, when they are washed out of the atmosphere by rain, or when they escape into space. In some cases, the pollutants may be reinserted into the atmosphere by the action of the wind.

PARAMETERS OF INTEREST

Three important parameters for the determination of the transport and dispersion of airborne material are wind speed, wind direction, and atmospheric stability. Wind direction and speed determine where the pollutants will go and the degree of downwind dilution. The stability of the atmosphere determines the extent of the vertical and horizontal mixing of the pollutants. Topographic features, including wake effects of the buildings around the stack, require special investigation.

The influence of the wind and stability is evident whenever the effluent forms a visible plume. Terms like fanning, fumigation, coning, looping and lofting have been empirically associated with stability and used to describe plume behavior. The non-visible effluent plume behaves in a similar manner. We know from watching plume behavior that stability must change from day to day and within the day. Actually because the atmosphere is both heated and cooled at the earth's surface everyday, the stability goes through a typical cycle on an average day.

When the temperature of ambient air decreases with altitude at a superadiabatic rate (>0.01°C/m), typically during midday due to heating of the ground surface, unstable conditions prevail, vertical currents are induced, and good vertical mixing of the pollutants occurs. The more normal situation is characterized by a decrease in temperature with height at a rate between neutral conditions (0.01°C/m) and isothermal conditions, temperature being constant with height. Under these conditions, less pronounced but still significant vertical mixing occurs. Under inversion conditions, i.e., an

increase of temperature with height which occurs typically near dawn when the ground surface has been cooled by radiation, vertical mixing is inhibited. Such a surface inversion is accompanied by lighter winds and thus concentration levels are raised further. After sunrise, as the sun begins to heat the surface, the lower part of the inversion may be removed, leaving an inversion aloft. Figure B-1 shows possible changes in the vertical temperature gradient during the course of the day. In each case, the dashed line is the neutral or dry adiabatic rate of temperature change. At 3 p.m., an unstable condition is evident. By midnight, a surface inversion begins to form, becoming fully formed by 6 a.m. and extending to some unknown level. By 9 a.m., the surface has warmed up, leaving an inversion aloft, and by noon the sounding is nearly neutral.

Pollutants released below an inversion will be trapped and inhibited from mixing to greater depths than the bottom of the stable layer. Pollutants released into or above an inversion will be prevented from mixing downward. Thus, ground-level concentrations from a surface or low level source are increased by low-level stability, and ground-level concentrations from a plume released sufficiently high are reduced by low-level stability. In the latter case, short-term concentrations are highest in unstable conditions where the plume is brought rapidly down with little dilution or dispersion.

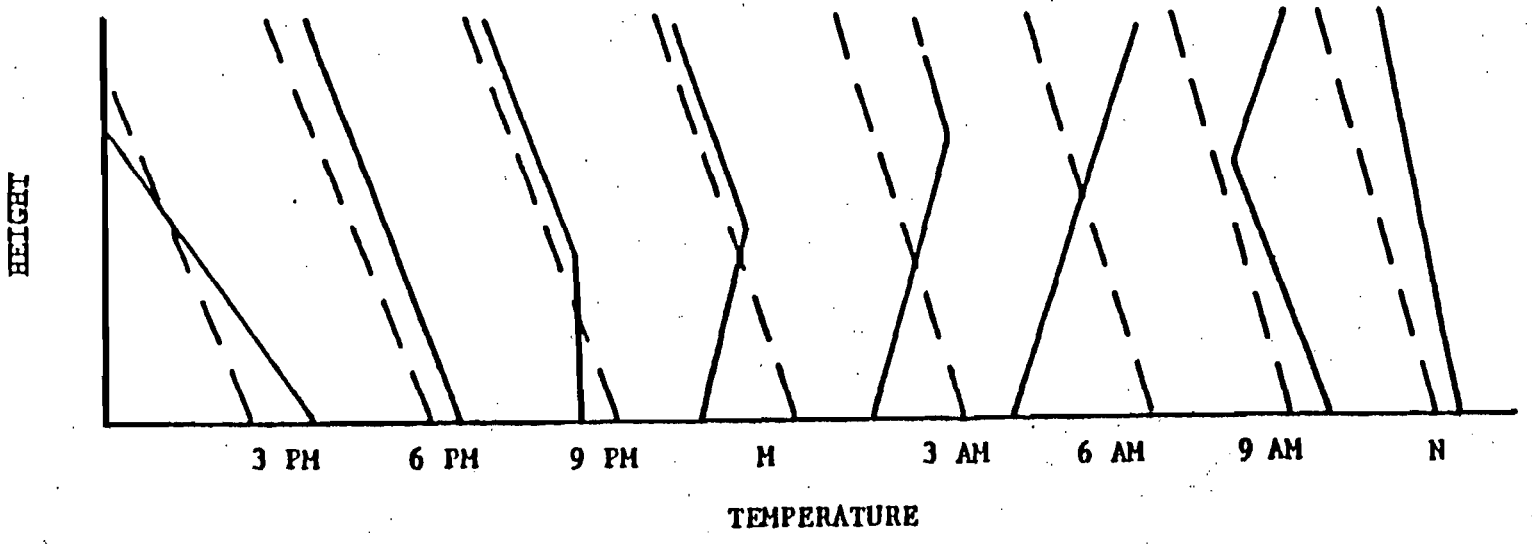
An inversion or a stable layer aloft may also exist resulting from the dynamic effects of the earth's large scale circulation. These, too, effectively limit the vertical extent to which a pollutant may be mixed. Holzworth has calculated the average height of this mixed layer for the morning and afternoon (minimum and maximum depths, respectively) for the four seasons. The Holzworth data were used to calculate daily variations of mixing depths for the site of the emissions being modeled.

SPECIFIC METEOROLOGICAL DATA

For a dispersion model to provide useful and valid results, the meteorological data used must be representative of the transport and dispersion conditions in the vicinity of the plant that the model is attempting to simulate. The representativeness of the data is dependent on: the proximity of the meteorological monitoring site to the power plant, the complexity of the terrain in the area, the exposure of the meteorological monitoring site, and

CHANGES IN VERTICAL TEMPERATURE GRADIENT

DURING THE COURSE OF THE DAY



LEGEND:

— — Dry Adiabatic Lapse Rate

——— Actual Lapse Rate

FIGURE B-1

the period of time during which the data were collected. The representativeness of the data can be adversely affected by large distances between the source and receptors of interest and valley-mountain, land-water, and urban-rural characteristics of the plant area.

As previously stated, the meteorological data required as a minimum to describe transport and dispersion in the atmosphere are wind direction, wind speed, atmospheric stability, and mixing height or related indicators of atmospheric turbulence and mixing. The U.S. EPA prefers that the meteorological data base used with air quality models include several years of data. Such a multi-year data base allows the consideration of variations in meteorological conditions that occur from year to year. The exact number of years needed to account for such variations in meteorological conditions is uncertain and depends on the climatic extremes in a given area. The EPA suggests that five years generally yield an adequate meteorological data base. Data from a single year should be supported by a demonstration of representativeness.

The St. Regis projects will be at Cantonment in Escambia County. The terrain is low-lying with little relief. The sandy soil supports the long-leaf pine for lumber and fuel, commercial groves and green truck farms. The annual temperature averages about 68°F, with an average maximum near 74°F and minimum near 61°F. The average annual rainfall of about 58 inches ranges from 4 inches per month in January to 7.65 inches per month in August. Prevailing winds are northerly in winter, southerly in summer. Sixty four percent of the maximum amount of sunshine possible at this latitude is experienced on the average.

The joint frequency distribution of wind speed and direction and stability (Table B-1) has been prepared for a ten-year period from observations made at Whiting Naval Air Station, Milton, Florida from 1962 to 1971. These data obtained from the National Climatic Center were the data input for the long-term AQDM modeling performed in this study. These observations provide stable estimates of the relative frequencies of these meteorological parameters and should give good confidence to the AQDM results.

Wind speed, direction and stability classification data were also obtained from the Climatic Center for 1964 for Pensacola. This was the most recent year for which surface observations have been transcribed on 24 obser-

TABLE B-1

1962-1971 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED, WIND DIRECTION, AND STABILITY CLASS AT MILTON, FLORIDA (%)

	WIND SPEED (KTS)						AVERAGE		STABILITY CLASS				
DIRECTION	0-3	4-6	7-10	11-16	17-21	>21	TOTAL	WS	A	B	C	D	E
N	3.1	3.8	3.8	1.9	0.5	0.1	13.2	7.1	0.2	0.9	1.3	4.6	6.1
NNE	1.9	2.5	2.1	0.8	0.1	*	7.4	9.0	0.1	0.6	1.0	2.4	3.3
NE	1.7	2.0	1.5	0.5	0.1	*	5.8	5.8	0.1	0.4	0.7	1.8	2.7
ENE	1.4	1.9	1.6	0.5	0.1	*	5.5	6.2	0.1	0.5	0.8	2.0	2.1
E	2.5	3.4	2.7	0.9	0.1	*	9.6	6.6	0.1	0.8	1.4	3.8	3.5
ESE	1.2	1.7	1.3	0.5	0.1	*	4.8	6.2	0.1	0.4	0.6	2.1	1.5
SE	0.9	1.2	0.9	0.5	0.1	*	3.6	6.6	*	0.3	0.4	1.9	1.1
SSE	0.9	1.3	1.5	0.8	0.1	*	4.6	7.2	0.1	0.3	0.5	2.4	1.2
S	1.7	2.8	3.1	1.5	0.2	*	9.3	7.2	0.1	0.5	1.3	4.4	3.1
SSW	1.1	1.8	1.8	1.1	0.1	*	5.9	7.2	0.1	0.2	0.7	2.8	2.2
SW	1.1	1.4	0.9	0.4	0.1	*	3.9	6.0	*	0.2	0.4	1.3	2.0
WSW	1.5	1.7	1.1	0.4	0.1	*	4.8	5.7	0.1	0.3	0.5	1.4	2.6
W	2.0	1.9	1.1	0.3	0.1	*	5.4	5.0	0.1	0.4	0.6	1.3	3.0
WNW	1.0	1.1	0.9	0.4	0.1	*	4.6	4.8	0.1	0.3	0.5	1.2	1.5
NW	0.9	1.1	1.3	0.9	0.3	0.1	4.6	8.2	0.1	0.4	0.5	2.0	1.5
NNW	1.5	1.9	2.3	1.5	0.5	0.1	7.8	8.1	0.2	0.7	0.9	3.4	2.8
TOTAL	24.4	31.5	27.9	12.9	4.2	0.3			1.6	7.2	12.1	38.8	40.2
A	0.9	0.6	0.0	0.0	0.0	0.0							
B	2.7	3.0	1.4	0.0	0.0	0.0							
C	1.5	3.7	6.3	0.8	*	*							
D	2.4	7.0	14.3	12.3	2.3	0.6							
E	16.9	17.1	6.1	0.0	0.0	0.0							

* Less than 0.05%

vations per day basis for data analysis purposes. These surface data were used in conjunction with mixing height data obtained from twice-daily radiosonde observations made at Mobile, Alabama. This was the basic data input for the short-term modeling with CRSTER in this study. Mobile upper air data were considered to be the most representative of meteorological conditions at the plant location. Though Mobile is roughly 40 miles to the west, it too is dominated by the thermal influence of the Gulf of Mexico and the stability is characteristically the same for on and off gulf winds.

The joint frequency distribution of wind speed, wind direction and stability class for the 10-year period 1962-1971 is presented in Table B-1. This was meteorological input for the annual averages modeled by AQDM.