# ATTACHMENT J

**Application to Operate/Construct Air Pollution Sources**

0510003-NA-AC

# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

AC 26-238006
PSD-FL-208

$1500 pd
9-17-93
Rcpt # 180874

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Bagasse/Oil-Fired Boiler [X] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: U. S. Sugar Corporation, Clewiston Mill COUNTY: Hendry

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) Boiler No. 7

SOURCE LOCATION: Street W. C. Owens Avenue and Clewiston Street City Clewiston

UTM: East 506.1 North 2956.9

Latitude 26 ° 44 ' 05 "N Longitude 80 ° 56 ' 20 "W

APPLICANT NAME AND TITLE: Murray T. Brinson, Vice President, Sugar Processing

APPLICANT ADDRESS: P.O. Drawer 1207, Clewiston, Florida 33440

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of U.S. Sugar Corporation

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. Furthe I agree to maintain and operate the pollution control source and pollution contr facilities in such a manner as to comply with the provision of Chapter 403, Flori Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferab and I will promptly notify the department upon sale or legal transfer of the permit establishment.

*Attach letter of authorization

Signed: Murray T. Brinson

Murray T. Brinson, Vice President, Sugar Process
Name and Title (Please Type)

Date: 9-16-93 Telephone No. 813/983-8121

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 ha been designed/examined by me and found to be in conformity with modern engineeri principles applicable to the treatment and disposal of pollutants characterized in t permit application. There is reasonable assurance, in my professional judgment, th

[1] 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 Peter J. Kroll

Peter Kroll
Name (Please Type)

ICF Kaiser Engineers, Inc.
Company Name (Please Type)

4 Gateway Center; Pittsburgh, PA 15222-1207
Mailing Address (Please Type)

Florida Registration No. PE0046447 Date: Feb. 26, 1993 Telephone No. 412/497-2024

412/497-2349

**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.

**See PSD Report**

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction February 1994* Completion of Construction January 1995*

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.)

Spray Impingement Scrubber: $570,000

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

See PSD Report for permits for existing boilers



*Assumes permit to construct issed in January 1994

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. Yes

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? Yes

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.

See PSD Report for Source Applicability

D. Control Devices: (See Section V, Item 4)

| Name and Type (Model & Serial No.) | Contaminant | Efficiency | Range of Particles Size Collected (in microns) (Iff applicable.) | Basis for Efficiency (Section V Item 5) |
|---|---|---|---|---|
| Spray Impingement Scrubber Joy Turbulaire | Particulate | 90+% | See PSD Report | See PSD Report |
| Type D. Size 260 or equivalent, two in parallel | $SO_2$ from bagasse | 75% | N/A | " |
| | | | | |
| | | | | |

E. Fuels

| Type (Be Specific) | Consumption* | | Maximum Heat Input (MMBTU/hr) |
|---|---|---|---|
| | avg/hr | max./hr | |
| Bagasse | | 92.3 ton/hr (wet) | 738 |
| No. 6 Fuel Oil | | 1,700 gal/hr | 255 |
| | | | |

* Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: See PSD Report

Percent Sulfur:_____ Percent Ash:_____

Density:_____ lbs/gal Typical Percent Nitrogen:_____

Heat Capacity:_____ BTU/lb _____BTU/gal

Other Fuel Contaminants (which may cause air pollution):_____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum Not Applicable

G. Indicate liquid or solid wastes generated and method of disposal.

Water from Scrubbers used to sluice cane juice mud. Scrubber water discharges to holding ponds.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 225 ft. Stack Diameter: 8.63 ft.

Gas Flow Rate: See PSD Report ACFM DSCFM Gas Exit Temperature: 153 °F.

Water Vapor Content: 15-30 (vol %) % Velocity: See PSD Report FPS

## SECTION IV: INCINERATOR INFORMATION

Not Applicable

| 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 Diameter: _____ 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 See PSD Report

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)]

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.)

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).

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

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ X ] Yes [ ] No **For oil firing**

| Contaminant | Rate of Concentration |
|---|---|
| Particulate | 0.1 lb/MM Btu |
| $SO_2$ | 0.5 lb/MM Btu or low-sulfur oil |
| $NO_x$ | 0.3 - 0.4 lb/MM Btu or low-nitrogen oil |
| | |

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy.)

[ X ] Yes [ ] No **For oil firing**

| Contaminant | Rate of Concentration |
|---|---|
| Particulate | 0.1 lb/MM Btu |
| $SO_2$ | 0.5% sulfur oil (very low sulfur oil) |
| $NO_x$ | Low-$NO_x$ burners |
| | |

C. What emission levels do you propose as best available control technology?

| Contaminant | Rate of Concentration |
|---|---|
| Particulate - bagasse / oil | 0.15 lb/MM Btu / 0.1 lb/MM Btu |
| Sulfur dioxide - bagasse / oil | 0.1667 lb/MM Btu / 0.5% S oil |
| NOx-bagasse/oil | 0.26 lb/MM Btu / 0.3% N oil |
| Other pollutants | Maximum emission rate shown in Section III.C |

D. Describe the existing control and treatment technology (if any). See PSD Report

1. Control Device/System:
2. Operating
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). **See PSD Report**

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. 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:

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: **See PSD Report**

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

A. Company Monitored Data

1. FSCL no. sites 11 . TSP 1 ( ) $SO^{2}$* _____ Wind spd/dir

Period of Monitoring 1 / 1 / 89 to 12 / 30 / 91
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? [X] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[X] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. 5 Year(s) of data from 1 / 1 / 85 to 12 / 31 / 89
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. Industrial Source Complex 2 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 | See PSD Report | grams/sec |
| $SO_2$ | See PSD Report | grams/sec |

E. Emission Data Used in Modeling See PSD Report

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. See PSD Report

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources. See PSD Report

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. See attached supportive information.

# ATTACHMENT K

**List of Dispersion Modeling Input Files**

## 1.0 Meteorological Data

Meteorological data used in the ISCST2 model to determine air quality impacts consisted of a concurrent 5-year period (from 1985 through 1989) of hourly surface-weather observations and twice-daily upper-air soundings from the National Weather Service (NWS) station at West Palm Beach. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

Sequential hourly data bases were computed for each year by using EPA's randomized meteorological (RAMMET) preprocessor program. RAMMET estimates atmospheric stability from wind speed, cloud cover, and cloud ceiling values, and estimates mixing heights using the Holzworth approach. RAMMET also randomizes the observed wind directions, which are rounded to the nearest tenth degree by the NWS, in an effort to account for expected variablity in the actual wind field.

Mixing height data files
- 12844-85.DAT
- 12844-86.DAT
- 12844-87.DAT
- 12844-88.DAT
- 12844-89.DAT

Surface weather data files
- S85.DAT
- S86.DAT
- S87.DAT
- S88.DAT
- S89.DAT

## 2.0 Significant Impact Analysis

As discussed in Section 6.9.1, modeling was conducted to define the significant impact area for CO, $NO_2$, PM10 and $SO_2$ for the years 1985-1989, and the input data files are as follows:

CO 1-hour/8-hour
- SIG2CO.D85
- SIG2CO.D86
- SIG2CO.D87
- SIG2CO.D88
- SIG2CO.D89

$NO_2$ Annual
- SIG2NOAN.D85
- SIG2NOAN.D86
- SIG2NOAN.D87
- SIG2NOAN.D88
- SIG2NOAN.D89

PM10 24-hour
- SIG2PM24.D85
- SIG2PM24.D86
- SIG2PM24.D87
- SIG2PM24.D88
- SIG2PM24.D89

PM10 Annual
- SIG2PMAN.D85
- SIG2PMAN.D86
- SIG2PMAN.D87
- SIG2PMAN.D88
- SIG2PMAN.D89

$SO_2$ 3-hour
- SIG2SO03.D85
- SIG2SO03.D86
- SIG2SO03.D87
- SIG2SO03.D88
- SIG2SO03.D89

$SO_2$ 24-hour
- SIG2SO24.D85
- SIG2SO24.D86
- SIG2SO24.D87
- SIG2SO24.D88
- SIG2SO24.D89

$SO_2$ Annual
- SIG2SOAN.D85
- SIG2SOAN.D86
- SIG2SOAN.D87
- SIG2SOAN.D88
- SIG2SOAN.D89

## 3.0 PSD Class I Analysis

As discussed in Section 6.9.4, modeling was conducted to define the impact on Class I areas for $NO_2$, PM10 and $SO_2$ for the years 1985-1989, and the input data files are as follows:

### 3.1 Crop Season

$NO_2$ Annual
- CPS2NO.D85
- CPS2NO.D86
- CPS2NO.D87

- CPS2NO.D88
- CPS2NO.D89

PM10 24-hour
- CPS2PM24.D85
- CPS2PM24.D86
- CPS2PM24.D87
- CPS2PM24.D88
- CPS2PM24.D89

PM10 Annual
- CPS2PMAN.D85
- CPS2PMAN.D86
- CPS2PMAN.D87
- CPS2PMAN.D88
- CPS2PMAN.D89

$SO_2$ 3-hour
- CPS2SO03.D85
- CPS2SO03.D86
- CPS2SO03.D87
- CPS2SO03.D88
- CPS2SO03.D89

$SO_2$ 24-hour
- CPS2SO24.D85
- CPS2SO24.D86
- CPS2SO24.D87
- CPS2SO24.D88
- CPS2SO24.D89

$SO_2$ Annual
- CPS2SOAN.D85
- CPS2SOAN.D86
- CPS2SOAN.D87
- CPS2SOAN.D88
- CPS2SOAN.D89

### 3.2 Off-season

Note that the annual impact modeling was done under "crop season" above, so the off-season modeling runs were only for short-term impacts.

PM10 24-hour
- OPS2PM24.D85
- OPS2PM24.D86
- OPS2PM24.D87

- OPS2PM24.D88
- OPS2PM24.D89

$SO_2$ 3-hour
- OPS2SO03.D85
- OPS2SO03.D86
- OPS2SO03.D87
- OPS2SO03.D88
- OPS2SO03.D89

$SO_2$ 24-hour
- OPS2SO24.D85
- OPS2SO24.D86
- OPS2SO24.D87
- OPS2SO24.D88
- OPS2SO24.D89

## 4.0 Preconstruction Monitoring Runs

As discussed in Section 4, modeling was conducted to demonstrate that CO and $NO_2$ does not exceed the established *de minimus* ambient impacts, and the input data files for the years 1985-1989 are as follows:

CO: Crop Season
- CPC2CO.D85
- CPC2CO.D86
- CPC2CO.D87
- CPC2CO.D88
- CPC2CO.D89

CO: Off-season
- OPC2CO.D85
- OPC2CO.D86
- OPC2CO.D87
- OPC2CO.D88
- OPC2CO.D89

NO
- CPC2NO.D85
- CPC2NO.D86
- CPC2NO.D87
- CPC2NO.D88
- CPC2NO.D89

## 5.0 AAQS and PSD Class II Impact Analysis Runs

As discussed in Section 6.9.2, modeling was conducted to define the impact on AAQS for CO, $NO_2$, PM10, $SO_2$, and air toxics for the years 1985-1989. The same input data files were also used for PSD Class II impact analysis for $NO_2$, PM10/PM(TSP) and $SO_2$, as discussed in Section 6.9.3. The input files are as follows:

### 5.1 Crop Season

CO 1-hour/8-hour
- CRF2CO.D85
- CRF2CO.D86
- CRF2CO.D87
- CRF2CO.D88
- CRF2CO.D89

$NO_2$ Annual
- CRF2NO.D85
- CRF2NO.D86
- CRF2NO.D87
- CRF2NO.D88
- CRF2NO.D89

PM10 24-hour
- CRF2PM24.D85
- CRF2PM24.D86
- CRF2PM24.D87
- CRF2PM24.D88
- CRF2PM24.D89

PM10 Annual
- CRF2PMAN.D85
- CRF2PMAN.D86
- CRF2PMAN.D87
- CRF2PMAN.D88
- CRF2PMAN.D89

$SO_2$ 3-hour
- CRF2SO03.D85
- CRF2SO03.D86
- CRF2SO03.D87
- CRF2SO03.D88
- CRF2SO03.D89

$SO_2$ 24-hour
- CRF2SO24.D85
- CRF2SO24.D86

- CRF2SO24.D87
- CRF2SO24.D88
- CRF2SO24.D89

$SO_2$ Annual
- CRF2SOAN.D85
- CRF2SOAN.D86
- CRF2SOAN.D87
- CRF2SOAN.D88
- CRF2SOAN.D89

Toxics 8-hour
- CRF2TX08.D85
- CRF2TX08.D86
- CRF2TX08.D87
- CRF2TX08.D88
- CRF2TX08.D89

Toxics 24-hour
- CRF2TX24.D85
- CRF2TX24.D86
- CRF2TX24.D87
- CRF2TX24.D88
- CRF2TX24.D89

Toxics Annual
- CRF2TXAN.D85
- CRF2TXAN.D86
- CRF2TXAN.D87
- CRF2TXAN.D88
- CRF2TXAN.D89

**5.2 Off-season**

CO 1-hour/8-hour
- ORF2CO.D85
- ORF2CO.D86
- ORF2CO.D87
- ORF2CO.D88
- ORF2CO.D89

PM10 24-hour
- ORF2PM24.D85
- ORF2PM24.D86
- ORF2PM24.D87
- ORF2PM24.D88
- ORF2PM24.D89

$SO_2$ 3-hour
- ORF2SO03.D85
- ORF2SO03.D86
- ORF2SO03.D87
- ORF2SO03.D88
- ORF2SO03.D89

$SO_2$ 24-hour
- ORF2SO24.D85
- ORF2SO24.D86
- ORF2SO24.D87
- ORF2SO24.D88
- ORF2SO24.D89

Toxics 8-hour
- ORF2TX08.D85
- ORF2TX08.D86
- ORF2TX08.D87
- ORF2TX08.D88
- ORF2TX08.D89

Toxics 24-hour
- ORF2TX24.D85
- ORF2TX24.D86
- ORF2TX24.D87
- ORF2TX24.D88
- ORF2TX24.D89

## 6.0 VOC/Ozone Impact Analysis Runs

As discussed in Section 6.9.6, modeling was conducted to define the impact of VOC emissions during the off-season (the high ozone season) for the years 1985-1989, and the input data files are as follows:

- ORF2VOC.D85
- ORF2VOC.D86
- ORF2VOC.D87
- ORF2VOC.D88
- ORF2VOC.D89

# ATTACHMENT L

**List of Dispersion Modeling Output Files**

# U.S. SUGAR DISPERSION MODELING OUTPUT DISK DIRECTORY

## 1.0 Significant Impact Analysis

As discussed in Section 6.9.1, modeling was conducted to define the significant impact area for CO, $NO_2$, PM10 and $SO_2$ for the years 1985-1989, and the output files are as follows:

CO 1-hour/8-hour
- SIG2CO.L85
- SIG2CO.L86
- SIG2CO.L87
- SIG2CO.L88
- SIG2CO.L89

$NO_2$ Annual
- SIG2NOAN.L85
- SIG2NOAN.L86
- SIG2NOAN.L87
- SIG2NOAN.L88
- SIG2NOAN.L89

PM10 24-hour
- SIG2PM24.L85
- SIG2PM24.L86
- SIG2PM24.L87
- SIG2PM24.L88
- SIG2PM24.L89

PM10 Annual
- SIG2PMAN.L85
- SIG2PMAN.L86
- SIG2PMAN.L87
- SIG2PMAN.L88
- SIG2PMAN.L89

$SO_2$ 3-hour
- SIG2SO03.L85
- SIG2SO03.L86
- SIG2SO03.L87
- SIG2SO03.L88
- SIG2SO03.L89

$SO_2$ 24-hour
- SIG2SO24.L85
- SIG2SO24.L86
- SIG2SO24.L87
- SIG2SO24.L88
- SIG2SO24.L89

$SO_2$ Annual
- SIG2SOAN.L85
- SIG2SOAN.L86
- SIG2SOAN.L87
- SIG2SOAN.L88
- SIG2SOAN.L89

## 2.0 PSD Class I Analysis

As discussed in Section 6.9.4, modeling was conducted to define the impact on Class I areas for $NO_2$, PM10 and $SO_2$ for the years 1985-1989, and the output files are as follows:

### 2.1 Crop Season

$NO_2$ Annual
- CPS2NO.L85
- CPS2NO.L86
- CPS2NO.L87
- CPS2NO.L88
- CPS2NO.L89

PM10 24-hour
- CPS2PM24.L85
- CPS2PM24.L86
- CPS2PM24.L87
- CPS2PM24.L88
- CPS2PM24.L89

PM10 Annual
- CPS2PMAN.L85
- CPS2PMAN.L86
- CPS2PMAN.L87
- CPS2PMAN.L88
- CPS2PMAN.L89

$SO_2$ 3-hour
- CPS2SO03.L85
- CPS2SO03.L86
- CPS2SO03.L87
- CPS2SO03.L88
- CPS2SO03.L89

$SO_2$ 24-hour
- CPS2SO24.L85
- CPS2SO24.L86
- CPS2SO24.L87

- CPS2SO24.L88
- CPS2SO24.L89

$SO_2$ Annual

- CPS2SOAN.L85
- CPS2SOAN.L86
- CPS2SOAN.L87
- CPS2SOAN.L88
- CPS2SOAN.L89

### 2.2 Off-season

Note that the annual impact modeling was done under "crop season" above, so the off-season modeling runs were only for short-term impacts.

PM10 24-hour

- OPS2PM24.L85
- OPS2PM24.L86
- OPS2PM24.L87
- OPS2PM24.L88
- OPS2PM24.L89

$SO_2$ 3-hour

- OPS2SO03.L85
- OPS2SO03.L86
- OPS2SO03.L87
- OPS2SO03.L88
- OPS2SO03.L89

$SO_2$ 24-hour

- OPS2SO24.L85
- OPS2SO24.L86
- OPS2SO24.L87
- OPS2SO24.L88
- OPS2SO24.L89

### 3.0 Preconstruction Monitoring Runs

As discussed in Section 4, modeling was conducted to demonstrate that CO and $NO_2$ does not exceed the established *de minimus* ambient impacts, and the output files for the years 1985-1989 are as follows:

CO: Crop Season

- CPC2CO.L85
- CPC2CO.L86
- CPC2CO.L87
- CPC2CO.L88

- CPC2CO.L89

CO: Off-season
- OPC2CO.L85
- OPC2CO.L86
- OPC2CO.L87
- OPC2CO.L88
- OPC2CO.L89

NO
- CPC2NO.L85
- CPC2NO.L86
- CPC2NO.L87
- CPC2NO.L88
- CPC2NO.L89

## 4.0 AAQS and PSD Class II Impact Analysis Runs

As discussed in Section 6.9.2, modeling was conducted to define the impact on AAQS for CO, $NO_2$, PM10, $SO_2$, and air toxics for the years 1985-1989. The same input data files were also used for PSD Class II impact analysis for $NO_2$, PM10/PM(TSP) and $SO_2$, as discussed in Section 6.9.3. The output files are as follows:

### 4.1 Crop Season

CO 1-hour/8-hour
- CRF2CO.L85
- CRF2CO.L86
- CRF2CO.L87
- CRF2CO.L88
- CRF2CO.L89

$NO_2$ Annual
- CRF2NO.L85
- CRF2NO.L86
- CRF2NO.L87
- CRF2NO.L88
- CRF2NO.L89

PM10 24-hour
- CRF2PM24.L85
- CRF2PM24.L86
- CRF2PM24.L87
- CRF2PM24.L88
- CRF2PM24.L89

PM10 Annual
- CRF2PMAN.L85
- CRF2PMAN.L86
- CRF2PMAN.L87
- CRF2PMAN.L88
- CRF2PMAN.L89

$SO_2$ 3-hour
- CRF2SO03.L85
- CRF2SO03.L86
- CRF2SO03.L87
- CRF2SO03.L88
- CRF2SO03.L89

$SO_2$ 24-hour
- CRF2SO24.L85
- CRF2SO24.L86
- CRF2SO24.L87
- CRF2SO24.L88
- CRF2SO24.L89

$SO_2$ Annual
- CRF2SOAN.L85
- CRF2SOAN.L86
- CRF2SOAN.L87
- CRF2SOAN.L88
- CRF2SOAN.L89

Toxics 8-hour
- CRF2TX08.L85
- CRF2TX08.L86
- CRF2TX08.L87
- CRF2TX08.L88
- CRF2TX08.L89

Toxics 24-hour
- CRF2TX24.L85
- CRF2TX24.L86
- CRF2TX24.L87
- CRF2TX24.L88
- CRF2TX24.L89

Toxics Annual
- CRF2TXAN.L85
- CRF2TXAN.L86
- CRF2TXAN.L87
- CRF2TXAN.L88

- CRF2TXAN.L89

**4.2 Off-season**

CO 1-hour/8-hour
- ORF2CO.L85
- ORF2CO.L86
- ORF2CO.L87
- ORF2CO.L88
- ORF2CO.L89

PM10 24-hour
- ORF2PM24.L85
- ORF2PM24.L86
- ORF2PM24.L87
- ORF2PM24.L88
- ORF2PM24.L89

$SO_2$ 3-hour
- ORF2SO03.L85
- ORF2SO03.L86
- ORF2SO03.L87
- ORF2SO03.L88
- ORF2SO03.L89

$SO_2$ 24-hour
- ORF2SO24.L85
- ORF2SO24.L86
- ORF2SO24.L87
- ORF2SO24.L88
- ORF2SO24.L89

Toxics 8-hour
- ORF2TX08.L85
- ORF2TX08.L86
- ORF2TX08.L87
- ORF2TX08.L88
- ORF2TX08.L89

Toxics 24-hour
- ORF2TX24.L85
- ORF2TX24.L86
- ORF2TX24.L87
- ORF2TX24.L88
- ORF2TX24.L89

## 5.0 VOC/Ozone Impact Analysis Runs

As discussed in Section 6.9.6, modeling was conducted to define the impact of VOC emissions during the off-season (the high ozone season) for the years 1985-1989, and the output files are as follows:

- ORF2VOC.L85
- ORF2VOC.L86
- ORF2VOC.L87
- ORF2VOC.L88
- ORF2VOC.L89

# ATTACHMENT M

**GEP Stack Height Calculation Output**

# GEP Table
# ICF Kaiser Engineers

**Input Data**

| | |
|---|---|
| Date: | 6-8-1993 |
| Model: | ISCST2 |
| Wake Area Section Option: | Maximum of all directions within sector. |
| Wake Area Shape Option: | Building edge moved 2L upwind & 5L downwind. |
| Combine Structures: | Combine buildings and tanks within one "L" crosswind and 5.00 "L" upwind-downwind of each other. |
| Number of Buildings: | 27 |
| Number of Tanks: | 6 |
| Number of Stacks: | 16 |
| Plant Rotation Angle: | .000° |

**Building No. 1**
**Name: cblr**
**Height: 75.00 (FT)**

| Corner | East (FT) | North (FT) |
|---|---|---|
| 1 | 45.00 | -13.00 |
| 2 | 111.00 | -13.00 |
| 3 | 111.00 | -91.00 |
| 4 | 45.00 | -91.00 |
| 5 | 45.00 | -13.00 |

**Building No. 2**
**Name: ablr**
**Height: 66.00 (FT)**

| Corner | East (FT) | North (FT) |
|---|---|---|
| 1 | 177.00 | 15.00 |
| 2 | 292.00 | 15.00 |
| 3 | 292.00 | -88.00 |
| 4 | 177.00 | -88.00 |
| 5 | 177.00 | 15.00 |

| Building No. 3<br>Name: bblr<br>Height: 56.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 45.00 | -13.00 |
| 2 | 111.00 | -13.00 |
| 3 | 111.00 | 23.00 |
| 4 | 177.00 | 23.00 |
| 5 | 177.00 | 15.00 |
| 6 | 292.00 | 15.00 |
| 7 | 292.00 | -88.00 |
| 8 | 177.00 | -88.00 |
| 9 | 177.00 | -95.00 |
| 10 | 111.00 | -95.00 |
| 11 | 111.00 | -91.00 |
| 12 | 45.00 | -91.00 |
| 13 | 45.00 | 13.00 |

| Building No. 4<br>Name: dblr<br>Height: 51.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -23.00 | -13.00 |
| 2 | 111.00 | -13.00 |
| 3 | 111.00 | 23.00 |
| 4 | 177.00 | 23.00 |
| 5 | 177.00 | 15.00 |
| 6 | 292.00 | 15.00 |
| 7 | 292.00 | -88.00 |
| 8 | 177.00 | -88.00 |
| 9 | 177.00 | -95.00 |

| Building No. 4<br>Name: dblr<br>Height: 51.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 10 | 111.00 | -95.00 |
| 11 | 111.00 | -91.00 |
| 12 | -23.00 | -91.00 |
| 13 | -23.00 | -13.00 |

| Building No. 5<br>Name: hse<br>Height: 34.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -23.00 | -13.00 |
| 2 | 111.00 | -13.00 |
| 3 | 111.00 | 23.00 |
| 4 | 177.00 | 23.00 |
| 5 | 177.00 | 15.00 |
| 6 | 292.00 | 15.00 |
| 7 | 292.00 | -23.00 |
| 8 | 411.00 | -23.00 |
| 9 | 411.00 | -79.00 |
| 10 | 372.00 | -79.00 |
| 11 | 372.00 | -88.00 |
| 12 | 333.00 | -88.00 |
| 13 | 333.00 | -69.00 |
| 14 | 292.00 | -69.00 |
| 15 | 292.00 | -88.00 |
| 16 | 177.00 | -88.00 |
| 17 | 177.00 | -95.00 |
| 18 | 111.00 | -95.00 |

| Building No. 5<br>Name: hse<br>Height: 34.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 19 | 111.00 | -91.00 |
| 20 | -23.00 | -91.00 |
| 21 | -23.00 | -13.00 |

| Building No. 6<br>Name: aplt<br>Height: 51.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -8.00 | 153.00 |
| 2 | 45.00 | 153.00 |
| 3 | 45.00 | 98.00 |
| 4 | -8.00 | 98.00 |
| 5 | -8.00 | 153.00 |

| Building No. 7<br>Name: bplt<br>Height: 34.83 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -8.00 | 153.00 |
| 2 | 45.00 | 153.00 |
| 3 | 45.00 | 40.00 |
| 4 | -8.00 | 40.00 |
| 5 | -8.00 | 153.00 |

| Building No. 8<br>Name: cplt<br>Height: 22.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -8.00 | 153.00 |
| 2 | 45.00 | 153.00 |
| 3 | 45.00 | -91.00 |
| 4 | -23.00 | 91.00 |
| 5 | -23.00 | 40.00 |
| 6 | -8.00 | 40.00 |
| 7 | -8.00 | 153.00 |

| Building No. 9<br>Name: carpenter<br>Height: 24.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 74.00 | 159.00 |
| 2 | 138.00 | 159.00 |
| 3 | 138.00 | 103.00 |
| 4 | 74.00 | 103.00 |
| 5 | 74.00 | 159.00 |

| Building No. 10<br>Name: office<br>Height: 15.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 427.00 | 23.00 |
| 2 | 486.00 | 23.00 |
| 3 | 486.00 | -57.00 |
| 4 | 427.00 | -57.00 |
| 5 | 427.00 | 23.00 |

| Building No. 11<br>Name: whse<br>Height: 46.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -605.00 | 212.00 |
| 2 | -78.00 | 212.00 |
| 3 | -78.00 | 107.00 |
| 4 | -605.00 | 107.00 |
| 5 | -605.00 | 212.00 |

| Buildin No. 12<br>Name: ship<br>Height: 24.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -605.00 | 212.00 |
| 2 | -78.00 | 212.00 |
| 3 | -78.00 | 107.00 |
| 4 | -180.00 | 107.00 |
| 5 | -180.00 | 74.00 |
| 6 | -342.00 | 74.00 |
| 7 | -342.00 | 107.00 |
| 8 | -605.00 | 107.00 |
| 9 | -605.00 | 212.00 |

| Building No. 13<br>Name: unkn<br>Height: 21.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -176.00 | -4.00 |
| 2 | -126.00 | -4.00 |
| 3 | -126.00 | -45.00 |
| 4 | -176.00 | -45.00 |
| 5 | -176.00 | -4.00 |

| Building No. 14<br>Name: locomotive<br>Height: 20.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -61.00 | -351.00 |
| 2 | 49.00 | -351.00 |
| 3 | 49.00 | -394.00 |
| 4 | -61.00 | -394.00 |
| 5 | -61.00 | -351.00 |

| Building No. 15<br>Name: shop<br>Height: 39.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -164.00 | -276.00 |
| 2 | 20.00 | -276.00 |
| 3 | 20.00 | -235.00 |
| 4 | 145.00 | -235.00 |
| 5 | 145.00 | -341.00 |
| 6 | -164.00 | -341.00 |
| 7 | -164.00 | -276.00 |

| Building No. 16<br>Name: m-17<br>Height: 37.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | -20.00 | -119.00 |
| 2 | 133.00 | -119.00 |
| 3 | 133.00 | -176.00 |
| 4 | 83.00 | -176.00 |
| 5 | 83.00 | -190.00 |
| 6 | -20.00 | -190.00 |
| 7 | -20.00 | -119.00 |

| Building No. 17<br>Name: emill<br>Height: 90.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 303.00 | -176.00 |
| 2 | 458.00 | -176.00 |
| 3 | 458.00 | -357.00 |
| 4 | 393.00 | -357.0 |
| 5 | 393.00 | -335.00 |
| 6 | 389.00 | -335.00 |
| 7 | 389.00 | -313.00 |
| 8 | 303.00 | -313.00 |
| 9 | 303.00 | -176.00 |

| Building No. 18<br>Name: fmill<br>Height: 85.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 315.00 | -198.00 |
| 2 | 458.00 | -198.00 |
| 3 | 458.00 | -219.00 |
| 4 | 315.00 | -219.00 |
| 5 | 315.00 | -198.00 |

| Building No. 19<br>Name: amill<br>Height: 66.75 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 155.00 | -194.00 |
| 2 | 236.00 | -194.00 |
| 3 | 236.00 | -372.00 |
| 4 | 155.00 | -372.00 |
| 5 | 155.00 | -194.00 |

| Building No. 20<br>Name: imill<br>Height: 66.67 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 303.00 | -176.00 |
| 2 | 458.00 | -176.00 |
| 3 | 458.00 | -170.00 |
| 4 | 514.00 | -170.00 |
| 5 | 514.00 | -223.00 |
| 6 | 458.00 | -223.00 |
| 7 | 458.00 | -357.00 |

| Building No. 20<br>Name: imill<br>Height: 66.67 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 8 | 393.00 | -357.00 |
| 9 | 393.00 | -335.00 |
| 10 | 389.00 | -355.00 |
| 11 | 389.00 | -313.00 |
| 12 | 303.00 | -313.00 |
| 13 | 303.00 | -176.00 |

| Building No. 21<br>Name: bmill<br>Height: 51.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 155.00 | -194.00 |
| 2 | 236.00 | -194.00 |
| 3 | 236.00 | -129.00 |
| 4 | 303.00 | -129.00 |
| 5 | 303.00 | -176.00 |
| 6 | 458.00 | -176.00 |
| 7 | 458.00 | -170.00 |
| 8 | 514.00 | -170.00 |
| 9 | 514.00 | -223.00 |
| 10 | 458.00 | -223.00 |
| 11 | 548.00 | -357.00 |
| 12 | 393.00 | -357.00 |
| 13 | 393.00 | -335.00 |
| 14 | 389.00 | -335.00 |
| 15 | 389.00 | -313.00 |
| 16 | 303.00 | -313.00 |

| Building No. 21<br>Name: bmill<br>Height: 51.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 17 | 303.00 | -372.00 |
| 18 | 155.00 | -372.00 |
| 19 | 155.00 | -194.00 |

| Building No. 22<br>Name: gmill<br>Height: 43.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 155.00 | -194.00 |
| 2 | 236.00 | -194.00 |
| 3 | 236.00 | -129.00 |
| 4 | 303.00 | -129.00 |
| 5 | 303.00 | -176.00 |
| 6 | 458.00 | -176.00 |
| 7 | 458.00 | -170.00 |
| 8 | 514.00 | -170.00 |
| 9 | 514.00 | -223.00 |
| 10 | 458.00 | -223.00 |
| 11 | 458.00 | -357.00 |
| 12 | 393.00 | -357.00 |
| 13 | 393.00 | -366.00 |
| 14 | 303.00 | -366.00 |
| 15 | 303.00 | -372.00 |
| 16 | 155.00 | -372.00 |
| 17 | 155.00 | -194.00 |

| Building No. 23<br>Name: hmill<br>Height: 35.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 155.00 | -194.00 |
| 2 | 236.00 | -194.00 |
| 3 | 236.00 | -129.00 |
| 4 | 303.00 | -129.00 |
| 5 | 303.00 | -176.00 |
| 6 | 405.00 | -176.00 |
| 7 | 405.00 | -129.00 |
| 8 | 458.00 | -129.00 |
| 9 | 458.00 | -170.00 |
| 10 | 514.00 | 170.00 |
| 11 | 514.00 | 223.00 |
| 12 | 458.00 | 223.00 |
| 13 | 458.00 | 376.00 |
| 14 | 399.00 | 376.00 |
| 15 | 399.00 | 357.00 |
| 16 | 393.00 | 357.00 |
| 17 | 393.00 | 366.00 |
| 18 | 303.00 | 366.00 |
| 19 | 303.00 | 372.00 |
| 20 | 155.00 | 372.00 |
| 21 | 155.00 | 194.00 |

| Building No. 24<br>Name: dmill<br>Height: 34.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 155.00 | 194.00 |
| 2 | 236.00 | 194.00 |
| 3 | 236.00 | 129.00 |
| 4 | 303.00 | 129.00 |
| 5 | 303.00 | 176.00 |
| 6 | 458.00 | 176.00 |
| 7 | 458.00 | 170.00 |
| 8 | 514.00 | 170.00 |
| 9 | 514.00 | 223.00 |
| 10 | 458.00 | 223.00 |
| 11 | 458.00 | 376.00 |
| 12 | 399.00 | 376.00 |
| 13 | 399.00 | 357.00 |
| 14 | 393.00 | 357.00 |
| 15 | 393.00 | 366.00 |
| 16 | 303.00 | 366.00 |
| 17 | 303.00 | 372.00 |
| 18 | 155.00 | 372.00 |
| 19 | 155.00 | 194.00 |

| Building No. 25<br>Name: emill<br>Height: 24.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 155.00 | -194.00 |
| 2 | 236.00 | -194.00 |
| 3 | 236.00 | -129.00 |

| Building No. 25<br>Name: emill<br>Height: 24.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 4 | 458.00 | -129.00 |
| 5 | 458.00 | -170.00 |
| 6 | 514.00 | -170.00 |
| 7 | 514.00 | -223.00 |
| 8 | 458.00 | -223.00 |
| 9 | 458.00 | -376.00 |
| 10 | 399.00 | -376.00 |
| 11 | 399.00 | -357.00 |
| 12 | 393.00 | -357.00 |
| 13 | 393.00 | -366.00 |
| 14 | 303.00 | -366.00 |
| 15 | 303.00 | -372.00 |
| 16 | 155.00 | -372.00 |
| 17 | 155.00 | -194.00 |

| Building No. 26<br>Name: pwr-mill<br>Height: 56.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 333.00 | -88.00 |
| 2 | 405.00 | -88.00 |
| 3 | 405.00 | -129.00 |
| 4 | 333.00 | -129.00 |
| 5 | 333.00 | -88.00 |

| Building No. 27<br>Name: cane dump<br>Height: 24.00 (FT) | | |
|---|---|---|
| **Corner** | **East (FT)** | **North (FT)** |
| 1 | 274.00 | 432.00 |
| 2 | 378.00 | 432.00 |
| 3 | 378.00 | 479.00 |
| 4 | 274.00 | 479.00 |
| 5 | 274.00 | 432.00 |

| Tank Parameters | | | | | |
|---|---|---|---|---|---|
| **Tank No.** | **Tank Name** | **Height (FT)** | **Diameter (FT)** | **Center Location** | |
| | | | | **East (FT)** | **Norht (FT)** |
| 1 | w condens | 30.00 | 53.00 | 221.00 | 128.00 |
| 2 | e condens | 30.00 | 53.00 | 358.00 | 128.00 |
| 3 | fuel oil | 30.00 | 52.00 | -139.00 | -163.00 |
| 4 | w molasses | 30.00 | 106.00 | -444.00 | -199.00 |
| 5 | c molasses | 32.00 | 91.00 | -348.00 | -260.00 |
| 6 | e molasses | 30.00 | 106.00 | -236.00 | -282.00 |

| Stack Parameters | | | |
|---|---|---|---|
| **Stack No.** | **Height (FT)** | **Location** | |
| | | **East (FT)** | **North (FT)** |
| 1 | 75.00 | 273.00 | .00 |
| 2 | 75.80 | 233.00 | .00 |
| 3 | 90.00 | 183.00 | 25.00 |
| 4 | 150.00 | 77.00 | .00 |
| 5 | 68.50 | 155.00 | 25.00 |
| 6 | 68.50 | 117.00 | 25.00 |

| Stack Parameters | | | |
|---|---|---|---|
| Stack No. | Height (FT) | Location | |
| | | East (FT) | North (FT) |
| 7 | 150.00 | .00 | .00 |
| 8 | 150.00 | 136.00 | 25.00 |
| 9 | 110.00 | 273.00 | .00 |
| 10 | 150.00 | 273.00 | .00 |
| 11 | 110.00 | 233.00 | .00 |
| 12 | 150.00 | 233.00 | .00 |
| 13 | 130.00 | 183.00 | 25.00 |
| 14 | 150.00 | 183.00 | 25.00 |
| 15 | 213.25 | .00 | .00 |
| 16 | 213.25 | 136.00 | 25.00 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 1 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 166.875 | emill | amill | 66.750. | 343.498 |
| 3 | 28.00 | 166.875 | emill | amill | 66.750 | 344.057 |
| 4 | 35.00 | 166.875 | emill | amill | 66.750 | 341.696 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 1 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 168.00 | 225.000 | emill | | 90.000 | 180.097 |
| 18 | 184.00 | 225.000 | emill | | 90.000 | 167.248 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 165.000 | ablr | imill | 66.000 | 411.886 |
| 21 | 215.00 | 165.000 | ablr | imill | 66.000 | 443.552 |
| 22 | 225.00 | 165.000 | ablr | emill | 66.000 | 461.741 |
| 23 | 233.00 | 165.000 | ablr | emill | 66.000 | 466.202 |
| 24 | 235.00 | 165.000 | ablr | emill | 66.000 | 465.900 |
| 25 | 245.00 | 165.000 | ablr | emill | 66.000 | 455.902 |
| 26 | 255.00 | 165.000 | ablr | emill | 66.000 | 432.053 |
| 27 | 265.00 | 165.000 | ablr | emill | 66.000 | 395.076 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.000 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.000 | 225.000 | emill | | 90.000 | 205.549 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 1 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 34 | 335.000 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.000 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 364.00 | 225.000 | emill | | 90.000 | 167.248 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 2 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 166.875 | emill | amill | 66.750. | 343.498 |
| 3 | 28.00 | 166.875 | emill | amill | 66.750 | 344.057 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 2 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 165.000 | ablr | imill | 66.000 | 356.460 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 165.000 | ablr | imill | 66.000 | 411.886 |
| 21 | 215.00 | 165.000 | ablr | imill | 66.000 | 443.552 |
| 22 | 223.00 | 187.500 | cblr | | 75.000 | 101.465 |
| 23 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 270.00 | 187.500 | cblr | emill | 75.000 | 344.001 |
| 28 | 275.00 | 187.500 | cblr | emill | 75.000 | 318.114 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.000 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.000 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.000 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.000 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 355.00 | 225.000 | emill | | 90.000 | 166.351 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 3 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 165.000 | ablr | imill | 66.000 | 356.460 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 187.000 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 3 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.000 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.000 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.000 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.000 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 355.00 | 166.875 | emill | amill | 66.750 | 318.930 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 4 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 4 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 187.500 | cblr | emill | 75.000 | 259.292 |
| 12 | 125.00 | 187.500 | cblr | emill | 75.000 | 201.128 |
| 13 | 135.00 | 187.500 | cblr | emill | 75.000 | 231.930 |
| 14 | 145.00 | 187.500 | cblr | emill | 75.000 | 289.555 |
| 15 | 155.00 | 187.500 | cblr | emill | 75.000 | 338.382 |
| 16 | 162.00 | 187.500 | cblr | emill | 75.000 | 366.519 |
| 17 | 165.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 18 | 175.00 | 183.821 | cblr | | 75.000 | 72.547 |
| 19 | 195.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 20 | 205.00 | 187.000 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 187.500 | cblr | emill | 75.000 | 318.114 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 4 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 29 | 285.00 | 225.000 | emill | | 90.000 | 192.316 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.000 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.000 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.000 | 187.500 | cblr | amill | 75.000 | 366.519 |
| 35 | 345.000 | 187.500 | cblr | | 75.000 | 83.939 |
| 36 | 355.00 | 183.821 | cblr | | 75.000 | 72.547 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 5 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 5 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 183.820 | cblr | | 75.000 | 72.547 |
| 19 | 195.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 20 | 205.00 | 187.000 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.000 | 225.000 | emill | | 90.000 | 206.860 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 5 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 33 | 325.000 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.000 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.000 | 166.875 | emill | amill | 66.750 | 343.405 |
| 36 | 365.00 | 183.820 | cblr | | 75.000 | 72.547 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 6 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 11 | 112.00 | 187.500 | cblr | emill | 75.000 | 213.313 |
| 12 | 115.00 | 187.500 | cblr | emill | 75.000 | 192.592 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 6 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 13 | 130.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 14 | 135.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 15 | 145.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 16 | 155.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 17 | 165.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 18 | 175.00 | 183.820 | cblr | | 75.000 | 72.547 |
| 19 | 195.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 20 | 205.00 | 187.000 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 294.00 | 225.000 | emill | | 90.000 | 191.790 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.000 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.000 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.000 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.000 | 187.500 | cblr | | 75.000 | 83.939 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 6 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 36 | 355.00 | 183.821 | cblr | | 75.000 | 72.547 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 7 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 127.500 | dblr | imill | 51.000 | 573.054 |
| 2 | 25.00 | 127.500 | dblr | bmill | 51.000 | 581.315 |
| 3 | 35.00 | 127.500 | dblr | emill | 51.000 | 591.322 |
| 4 | 36.00 | 127.500 | dblr | bmill | 51.000 | 591.335 |
| 5 | 53.00 | 187.500 | cblr | | 75.000 | 102.013 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 187.500 | cblr | emill | 75.000 | 259.292 |
| 12 | 125.00 | 187.500 | cblr | emill | 75.000 | 201.128 |
| 13 | 135.00 | 187.500 | cblr | emill | 75.000 | 231.930 |
| 14 | 145.00 | 187.500 | cblr | emill | 75.000 | 289.555 |
| 15 | 155.00 | 187.500 | cblr | emill | 75.000 | 338.382 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 7 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 16 | 162.00 | 187.500 | cblr | emill | 75.000 | 366.519 |
| 17 | 165.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 18 | 185.00 | 127.500 | dblr | imill | 51.000 | 533.259 |
| 19 | 195.00 | 127.500 | dblr | imill | 51.000 | 573.054 |
| 20 | 205.00 | 127.500 | dblr | bmill | 51.000 | 581.314 |
| 21 | 215.00 | 127.500 | dblr | emill | 51.000 | 591.322 |
| 22 | 216.00 | 127.500 | dblr | bmill | 51.000 | 591.335 |
| 23 | 233.00 | 127.500 | cblr | | 75.000 | 102.013 |
| 24 | 235.00 | 127.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 127.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 127.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 127.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 127.500 | cblr | emill | 75.000 | 318.114 |
| 29 | 294.00 | 225.000 | emill | | 90.000 | 191.790 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 335.00 | 187.500 | cblr | emill | 75.000 | 338.381 |
| 34 | 342.00 | 187.500 | cblr | emill | 75.000 | 366.519 |
| 35 | 345.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 36 | 365.00 | 127.500 | dblr | bmill | 51.000 | 553.258 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 8 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | ablr | emill | 66.000 | 361.782 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | cblr | amill | 66.000 | 334.198 |
| 16 | 158.00 | 187.500 | cblr | | 75.000 | 90.414 |
| 17 | 165.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 18 | 175.00 | 183.821 | cblr | | 75.000 | 72.547 |
| 19 | 195.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 20 | 205.00 | 187.500 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 8 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 36 | 355.00 | 183.821 | cblr | | 75.000 | 72.547 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 9 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 166.875 | emill | amill | 66.750 | 343.498 |
| 3 | 28.00 | 166.875 | emill | amill | 66.750 | 344.057 |
| 4 | 35.00 | 166.875 | emill | amill | 66.750 | 341.696 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 9 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 168.00 | 225.000 | emill | | 90.000 | 180.097 |
| 18 | 184.00 | 225.000 | emill | | 90.000 | 167.248 |
| 19 | 1945.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 165.000 | ablr | imill | 66.000 | 411.886 |
| 21 | 215.00 | 165.000 | ablr | imill | 66.000 | 443.552 |
| 22 | 225.00 | 165.000 | ablr | emill | 66.000 | 461.741 |
| 23 | 233.00 | 165.000 | ablr | emill | 66.000 | 466.202 |
| 24 | 235.00 | 165.000 | ablr | emill | 66.000 | 465.900 |
| 25 | 245.00 | 165.000 | ablr | emill | 66.000 | 455.902 |
| 26 | 255.00 | 165.000 | ablr | emill | 66.000 | 432.053 |
| 27 | 265.00 | 165.000 | ablr | emill | 66.000 | 305.076 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 9 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 364.00 | 225.000 | emill | | 90.000 | 167.248 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 10 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 166.875 | emill | amill | 66.750 | 343.498 |
| 3 | 28.00 | 166.875 | emill | amill | 66.750 | 344.057 |
| 4 | 35.00 | 166.875 | emill | amill | 66.750 | 341.696 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 10 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 168.00 | 225.000 | emill | | 90.000 | 180.097 |
| 18 | 184.00 | 225.000 | emill | | 90.000 | 167.248 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 165.000 | ablr | imill | 66.000 | 411.886 |
| 21 | 215.00 | 165.000 | ablr | imill | 66.000 | 443.552 |
| 22 | 225.00 | 165.000 | ablr | emill | 66.000 | 461.741 |
| 23 | 233.00 | 165.000 | ablr | emill | 66.000 | 466.202 |
| 24 | 235.00 | 165.000 | ablr | emill | 66.000 | 465.900 |
| 25 | 245.00 | 165.000 | ablr | emill | 66.000 | 455.902 |
| 26 | 255.00 | 165.000 | ablr | emill | 66.000 | 432.053 |
| 27 | 265.00 | 165.000 | ablr | emill | 66.000 | 395.076 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 345.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 10 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 365.00 | 225.000 | emill | | 90.000 | 167.248 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 11 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 166.875 | emill | amill | 66.750 | 343.498 |
| 3 | 28.00 | 187.500 | emill | amill | 66.750 | 344.057 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | emill | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | ablr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 11 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 165.000 | ablr | imill | 66.000 | 356.460 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 165.000 | ablr | imill | 66.000 | 411.886 |
| 21 | 215.00 | 165.000 | ablr | imill | 66.000 | 443.552 |
| 22 | 223.00 | 187.500 | cblr | | 75.000 | 101.465 |
| 23 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.000 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 270.00 | 187.500 | cblr | emill | 75.000 | 344.001 |
| 28 | 275.00 | 187.500 | cblr | emill | 75.000 | 318.114 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 11 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 355.00 | 225.000 | emill | | 90.000 | 166.351 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 12 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 166.875 | emill | amill | 66.750 | 343.498 |
| 3 | 28.00 | 166.875 | emill | amill | 66.750 | 344.057 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 12 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 165.000 | ablr | imill | 66.000 | 356.460 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 165.000 | ablr | imill | 66.000 | 411.886 |
| 21 | 215.00 | 165.000 | ablr | imill | 66.000 | 443.552 |
| 22 | 223.00 | 187.500 | cblr | | 75.000 | 101.465 |
| 23 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 270.00 | 187.500 | cblr | emill | 75.000 | 344.001 |
| 28 | 275.00 | 187.500 | cblr | emill | 75.000 | 318.114 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 355.00 | 225.00 | emill | | 90.000 | 166.351 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 13 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | | 75.000 | 351.156 |
| 10 | 95.00 | 165.000 | cblr | emill | 66.000 | 361.782 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | emill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 165.000 | ablr | imill | 66.000 | 356.460 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 187.500 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 13 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 33.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 355.00 | 166.875 | emill | amill | 66.750 | 318.930 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 14 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 166.875 | emill | amill | 66.750 | 334.863 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 14 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 11 | 105.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.000 | ablr | amill | 66.000 | 406.018 |
| 13 | 125.00 | 165.000 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.000 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.000 | ablr | amill | 66.000 | 334.198 |
| 16 | 165.00 | 165.000 | ablr | imill | 66.000 | 304.293 |
| 17 | 175.00 | 165.000 | ablr | imill | 66.000 | 328.571 |
| 18 | 185.00 | 165.000 | ablr | imill | 66.000 | 356.460 |
| 19 | 195.00 | 165.000 | ablr | imill | 66.000 | 387.115 |
| 20 | 205.00 | 187.500 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 01.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 14 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 225.000 | emill | | 90.000 | 185.177 |
| 36 | 355.00 | 166.875 | emill | amill | 66.750 | 318.930 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 15 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 127.500 | dblr | imill | 51.000 | 573.054 |
| 2 | 25.00 | 127.500 | dblr | bmill | 51.000 | 581.315 |
| 3 | 35.00 | 127.500 | dblr | emill | 51.000 | 591.322 |
| 4 | 36.00 | 127.500 | dblr | bmill | 51.000 | 591.335 |
| 5 | 53.00 | 187.500 | cblr | | 75.000 | 102.013 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |

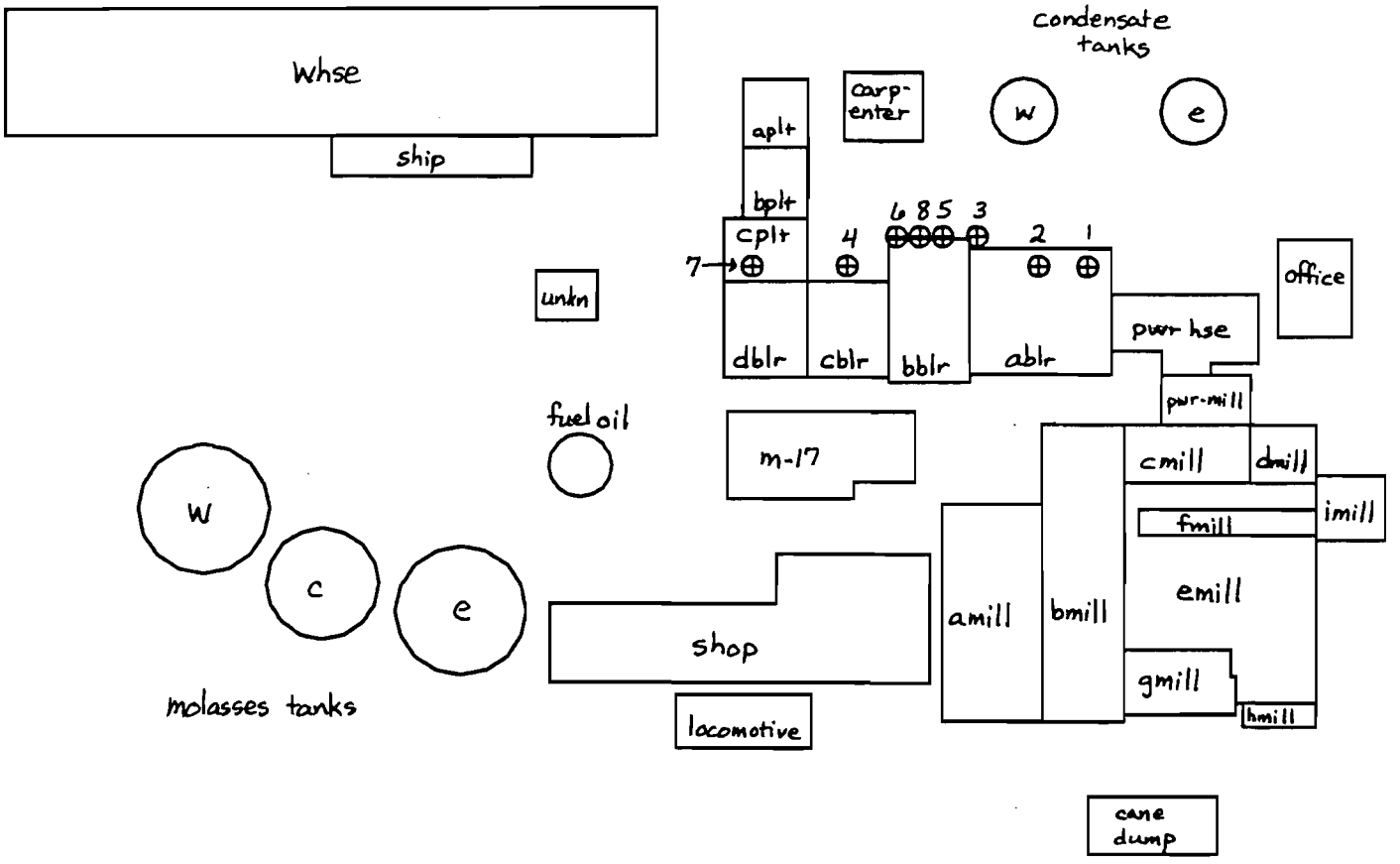
| GEP Table<br>ICF Kaiser International<br>STACK ID 15 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 187.500 | cblr | emill | 75.000 | 318.113 |
| 11 | 105.00 | 187.500 | cblr | emill | 75.000 | 259.292 |
| 12 | 125.00 | 187.500 | cblr | emill | 75.000 | 201.128 |
| 13 | 135.00 | 187.500 | cblr | emill | 75.000 | 231.930 |
| 14 | 145.00 | 187.500 | cblr | emill | 75.000 | 289.555 |
| 15 | 155.00 | 187.500 | cblr | emill | 75.000 | 338.382 |
| 16 | 162.00 | 187.500 | cblr | emill | 75.000 | 366.519 |
| 17 | 165.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 18 | 185.00 | 127.500 | dblr | imill | 51.000 | 553.259 |
| 19 | 195.00 | 127.500 | dblr | imill | 51.000 | 573.054 |
| 20 | 205.00 | 127.500 | dblr | bmill | 51.000 | 581.314 |
| 21 | 215.00 | 127.500 | dblr | emill | 51.000 | 591.322 |
| 22 | 216.00 | 127.500 | dblr | bmill | 51.000 | 591.335 |
| 23 | 233.00 | 187.500 | cblr | | 75.000 | 102.013 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 187.500 | emill | emill | 75.000 | 318.114 |
| 29 | 294.00 | 225.000 | emill | | 90.000 | 191.790 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 15 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 33 | 335.00 | 187.500 | cblr | emill | 75.000 | 338.381 |
| 34 | 342.00 | 187.500 | cblr | emill | 75.000 | 366.519 |
| 35 | 345.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 36 | 365.00 | 127.500 | dblr | bmill | 51.000 | 553.258 |

| GEP Table<br>ICF Kaiser International<br><br>STACK ID 16 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 1 | 15.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 2 | 25.00 | 187.500 | cblr | | 75.000 | 92.781 |
| 3 | 35.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 4 | 45.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 5 | 50.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 6 | 55.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 7 | 65.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 8 | 75.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 9 | 89.00 | 187.500 | cblr | emill | 75.000 | 351.156 |
| 10 | 95.00 | 165.00 | ablr | emill | 66.000 | 361.782 |
| 11 | 105.00 | 165.00 | ablr | emill | 66.000 | 333.184 |
| 12 | 118.00 | 165.00 | ablr | amill | 66.000 | 406.018 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 16 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 13 | 125.00 | 165.00 | ablr | amill | 66.000 | 395.592 |
| 14 | 135.00 | 165.00 | ablr | amill | 66.000 | 370.524 |
| 15 | 145.00 | 165.00 | ablr | amill | 66.000 | 334.198 |
| 16 | 158.00 | 187.500 | cblr | | 75.000 | 90.414 |
| 17 | 165.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 18 | 175.00 | 187.500 | cblr | | 75.000 | 72.547 |
| 19 | 195.00 | 187.500 | cblr | | 75.000 | 83.939 |
| 20 | 205.00 | 187.500 | cblr | | 75.000 | 92.780 |
| 21 | 215.00 | 187.500 | cblr | | 75.000 | 98.803 |
| 22 | 225.00 | 187.500 | cblr | | 75.000 | 101.823 |
| 23 | 230.00 | 187.500 | cblr | | 75.000 | 102.175 |
| 24 | 235.00 | 187.500 | cblr | | 75.000 | 101.750 |
| 25 | 245.00 | 187.500 | cblr | | 75.000 | 98.585 |
| 26 | 255.00 | 187.500 | cblr | | 75.000 | 92.424 |
| 27 | 269.00 | 187.500 | cblr | emill | 75.000 | 351.157 |
| 28 | 275.00 | 165.000 | ablr | emill | 66.000 | 361.782 |
| 29 | 285.00 | 165.000 | ablr | emill | 66.000 | 333.184 |
| 30 | 305.00 | 225.000 | emill | | 90.000 | 201.128 |
| 31 | 315.00 | 225.000 | emill | | 90.000 | 206.475 |
| 32 | 319.00 | 225.000 | emill | | 90.000 | 206.860 |
| 33 | 325.00 | 225.000 | emill | | 90.000 | 205.549 |
| 34 | 335.00 | 225.000 | emill | | 90.000 | 198.377 |
| 35 | 345.00 | 187.500 | cblr | | 75.000 | 83.939 |

| GEP Table<br>ICF Kaiser International<br>STACK ID 16 | | | | | | |
|---|---|---|---|---|---|---|
| Sector No. | Critical Flow Vector (deg) | GEP Stack Height (FT) | Controlling Structures | | | |
| | | | Name-1 | Name-2 | Height (FT) | Projected Width (FT) |
| 36 | 355.00 | 183.821 | cblr | | 75.000 | 72.547 |



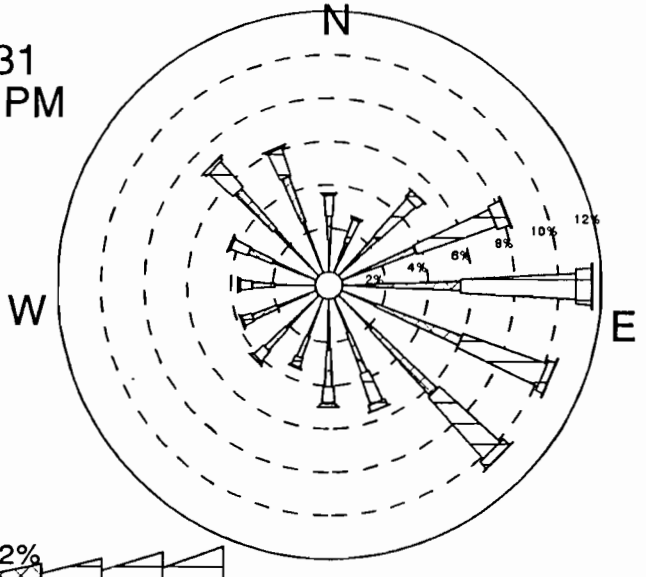

0 200.0 FT

Scale

# ATTACHMENT N

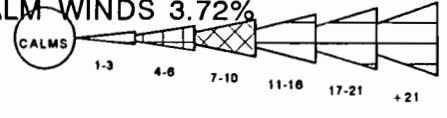
**Wind Roses**

Jan - Dec ; 1984 - 1989
January 1
December 31
Midnight-11 PM

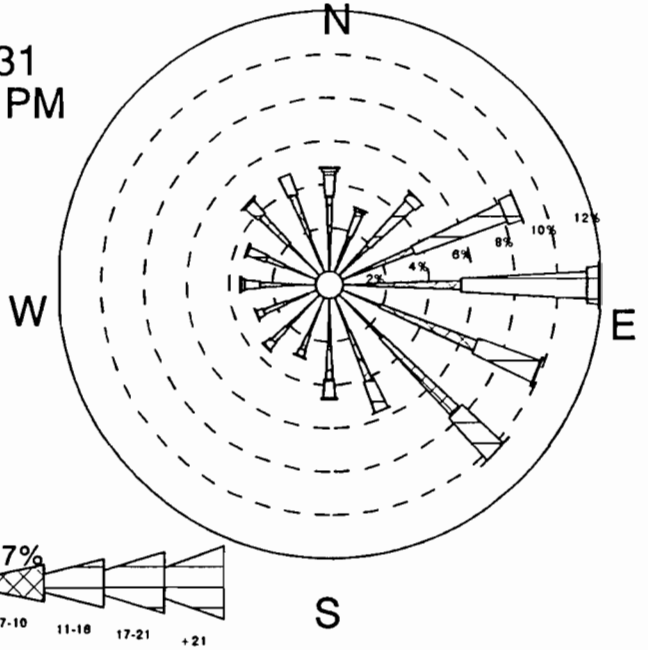



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 3.72%

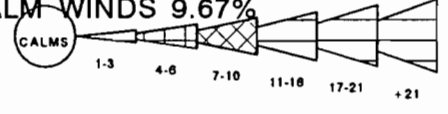


Jan. - Dec., 1984
January 1
December 31
Midnight-11 PM

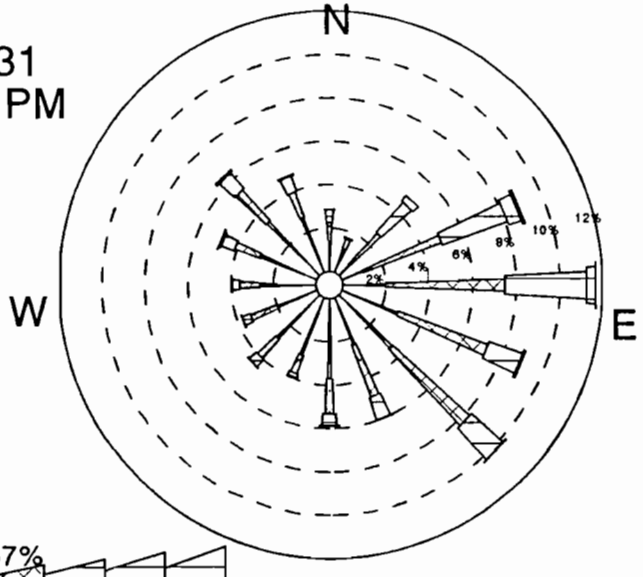



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 9.67%

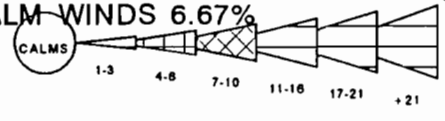


Jan - Dec ; 1985
January 1
December 31
Midnight-11 PM

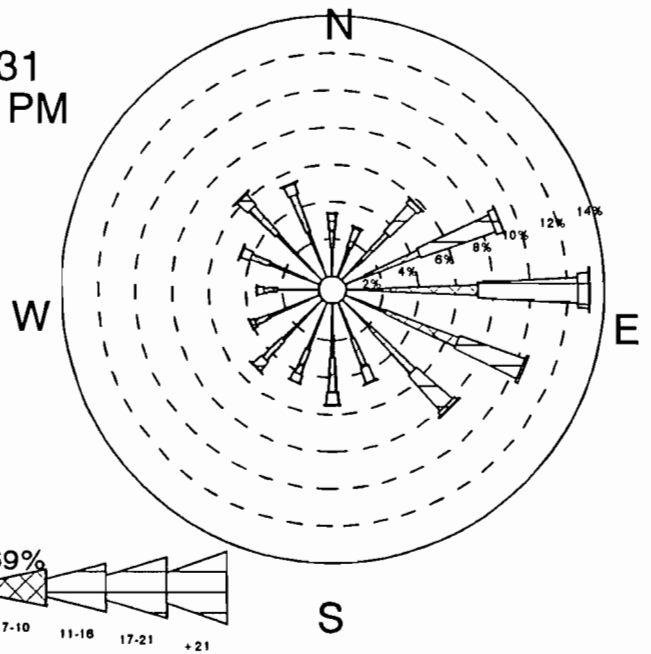



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 6.67%

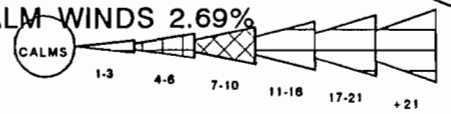


Jan - Dec ; 1986
January 1
December 31
Midnight-11 PM

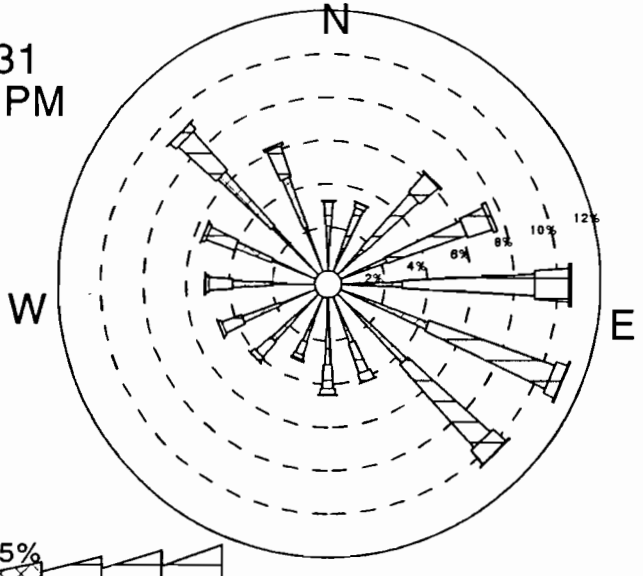



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 2.69%

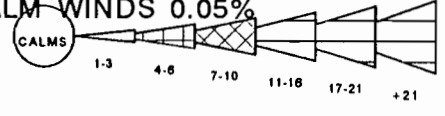


Jan - Dec ; 1987
January 1
December 31
Midnight-11 PM

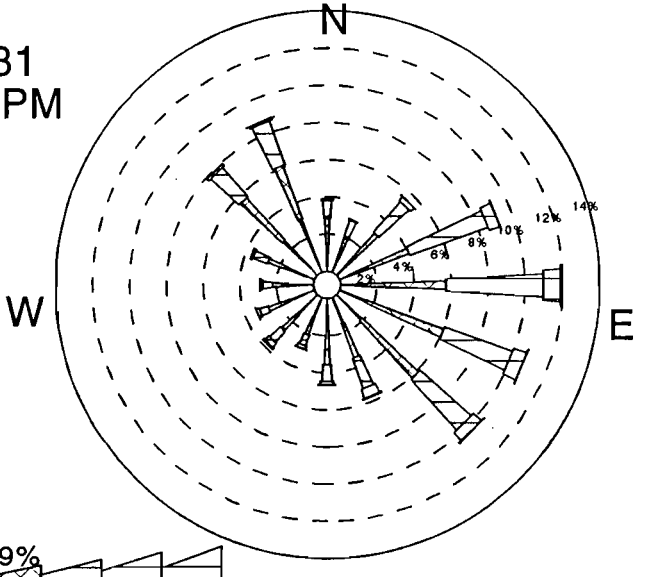



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 0.05%

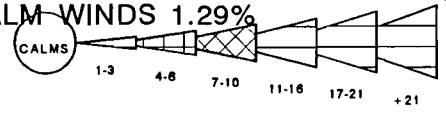


Jan - Dec ; 1988
January 1
December 31
Midnight-11 PM

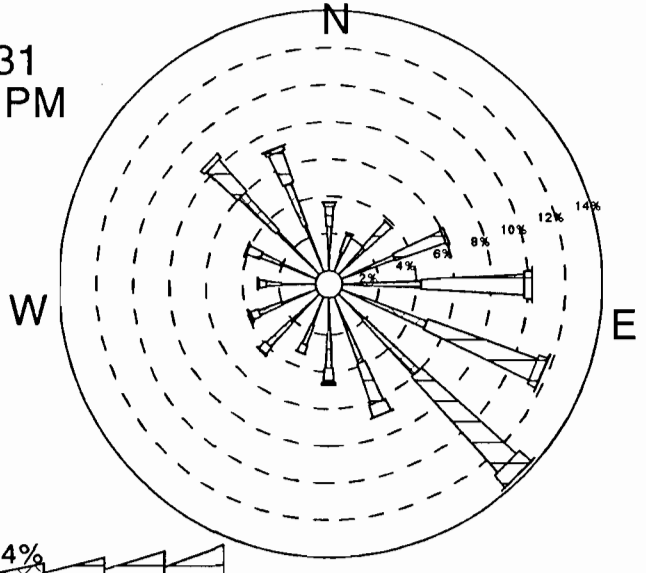



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 1.29%

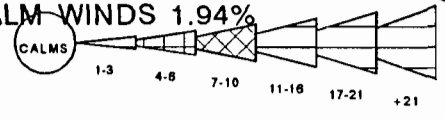


Jan - Dec ; 1989
January 1
December 31
Midnight-11 PM

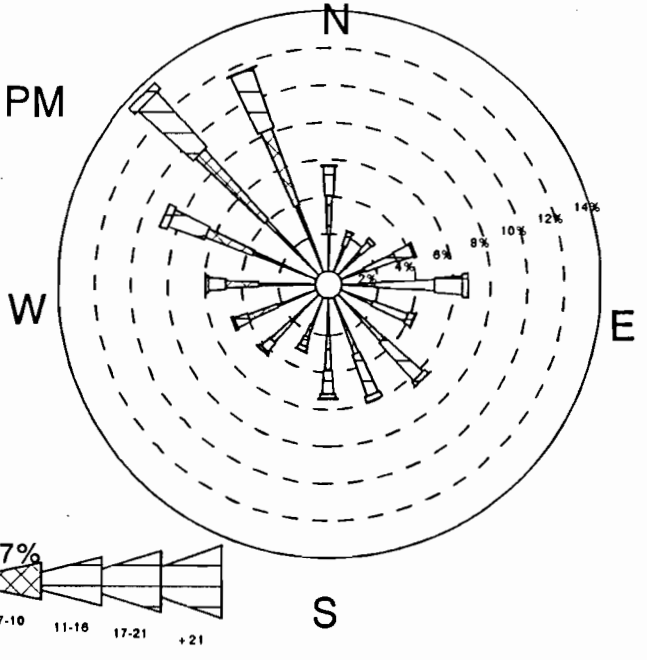



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 1.94%



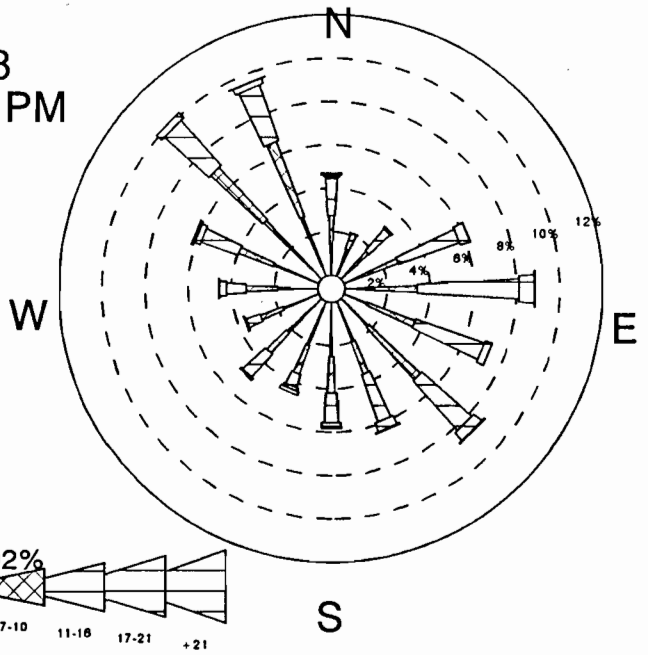
January, 1984 - 1989
January 1
January 31
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 3.47%

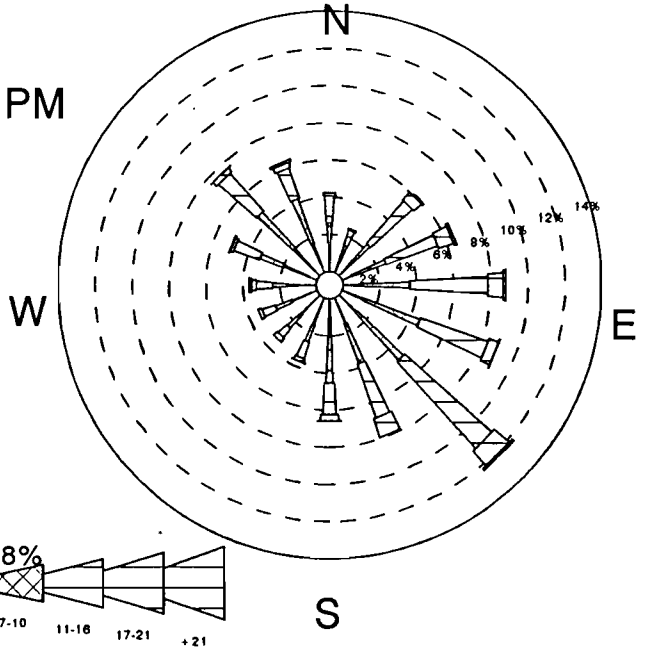
February, 1984 - 1989
February 1
February 28
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 2.92%

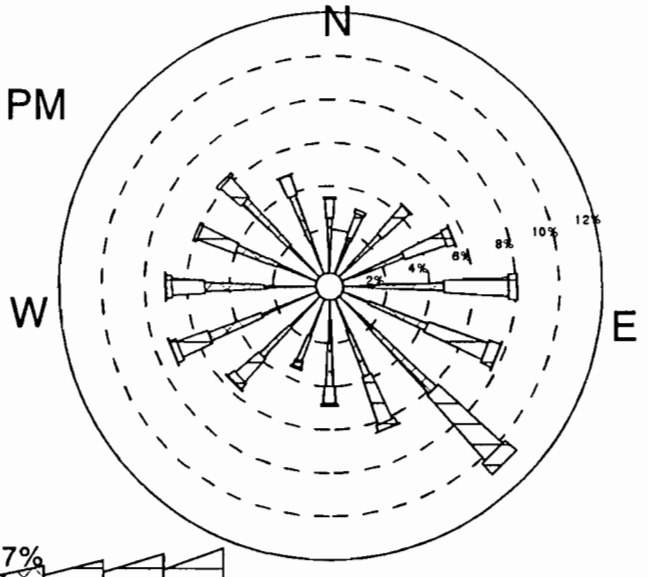
March, 1984 - 1989
March 1
March 31
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

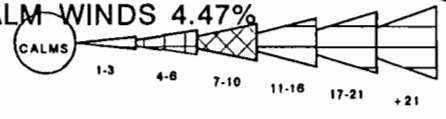
CALM WINDS 2.98%

April, 1984 - 1989
April 1
April 30
Midnight-11 PM

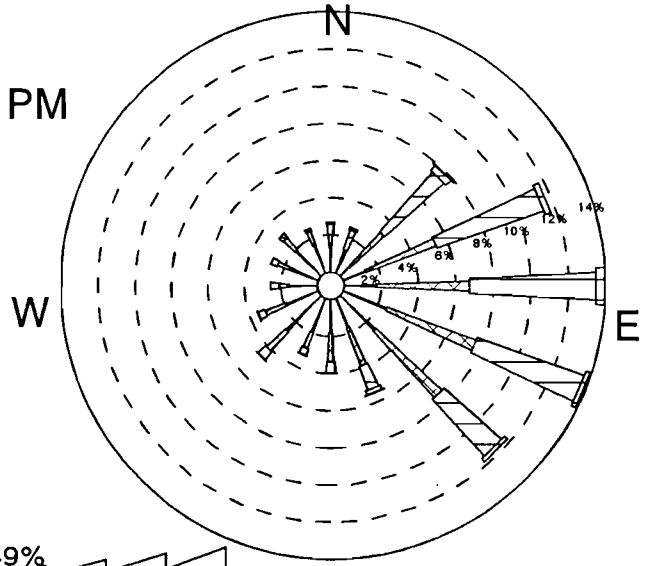



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 4.47%

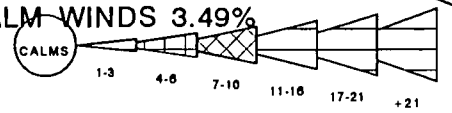


May, 1984 - 1989
May 1
May 31
Midnight-11 PM

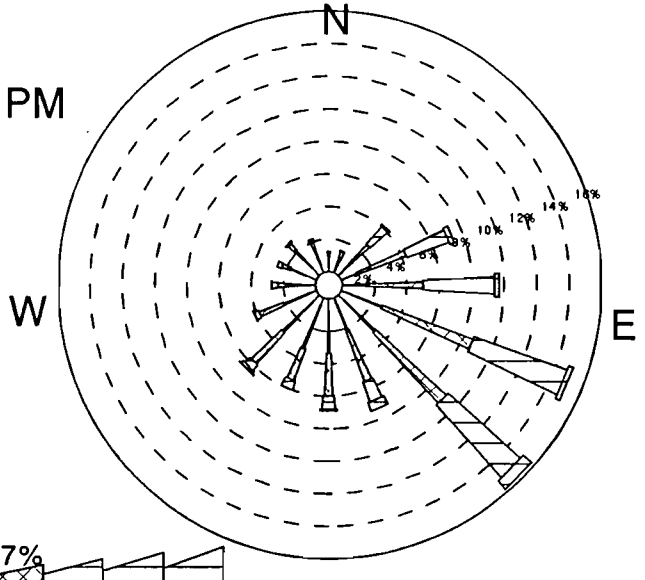



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 3.49%

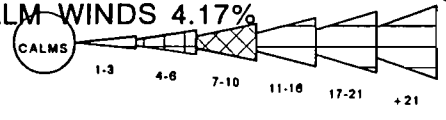


June, 1984 - 1989
June 1
June 30
Midnight-11 PM

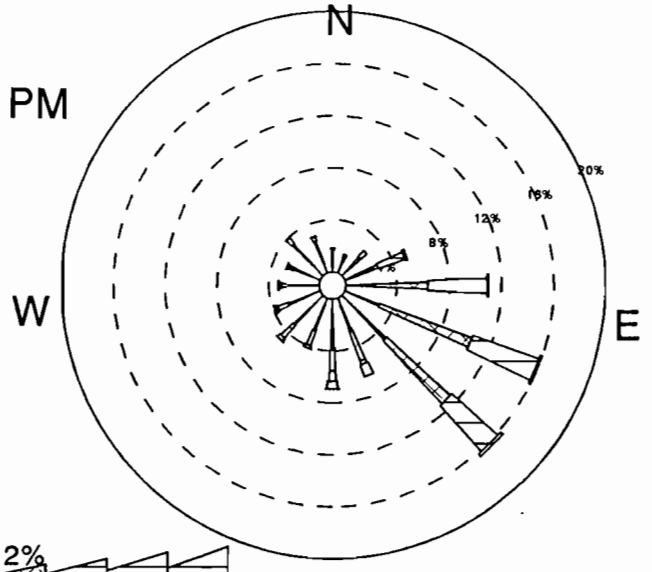



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 4.17%

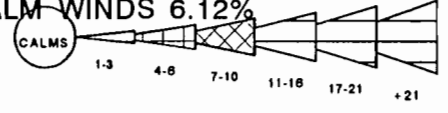


July, 1984 - 1989
July 1
July 31
Midnight-11 PM

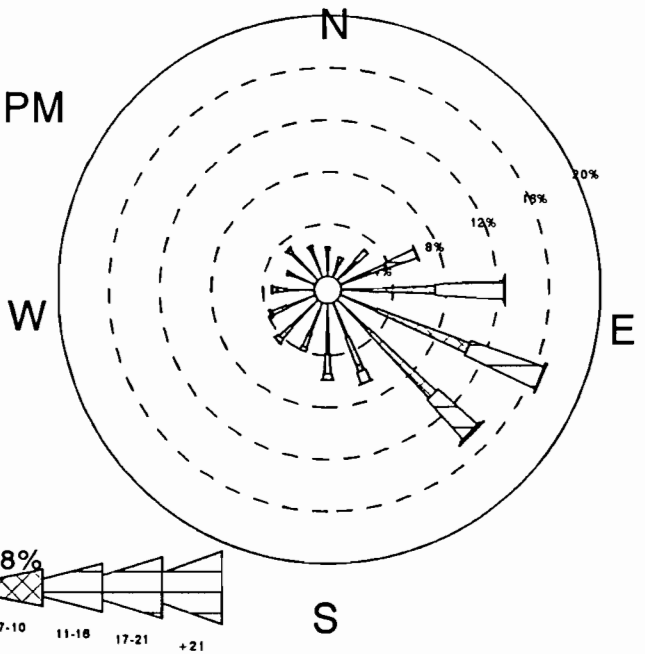



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 6.12%



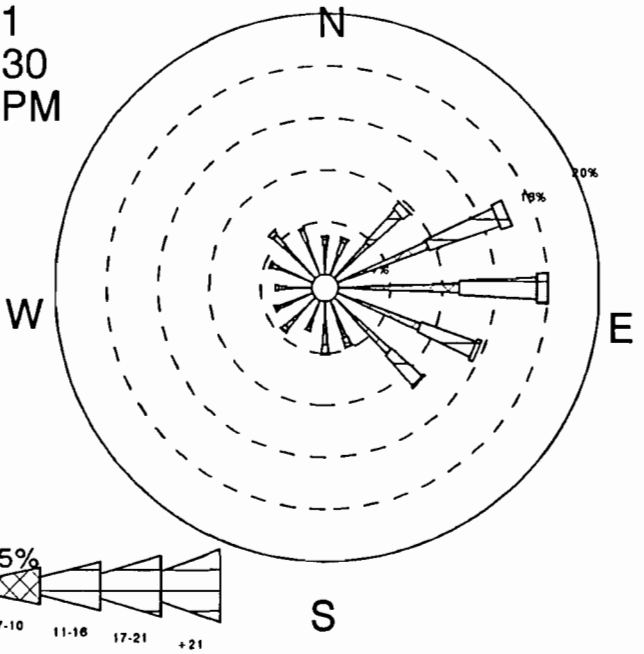
August, 1984 - 1989
August 1
August 31
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 6.18%

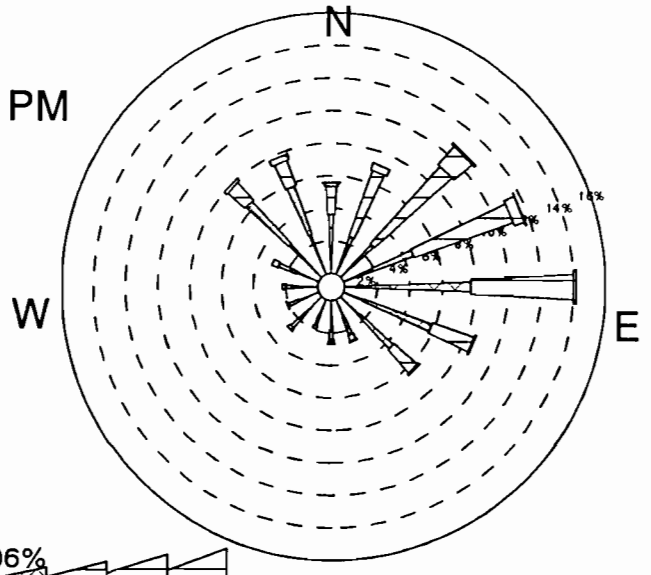
September, 1984 - 1989
September 1
September 30
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

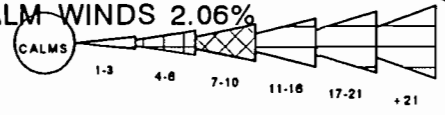
CALM WINDS 2.85%

October, 1984 - 1989
October 1
October 31
Midnight-11 PM

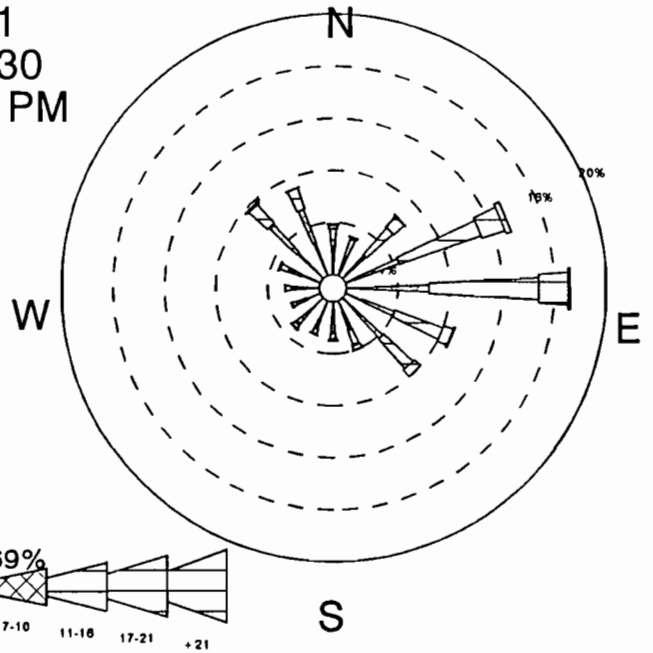



NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 2.06%



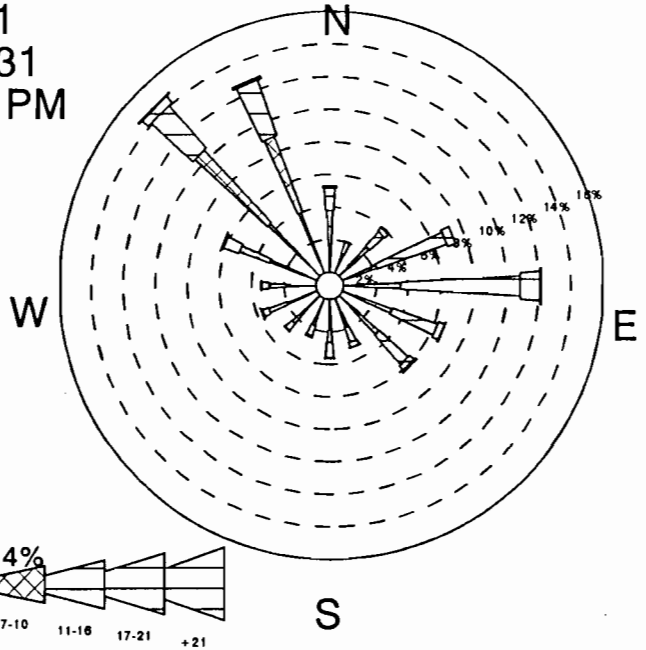
November, 1984 - 1989
November 1
November 30
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

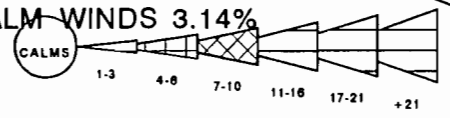
CALM WINDS 2.69%

December, 1984 - 198
December 1
December 31
Midnight-11 PM




NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 3.14%



# ATTACHMENT O

**Diskettes of Dispersion Modeling Input Files**

# Directions for Input/Output Diskettes[1]

1. Create a directory on the hard drive for both Input and Output

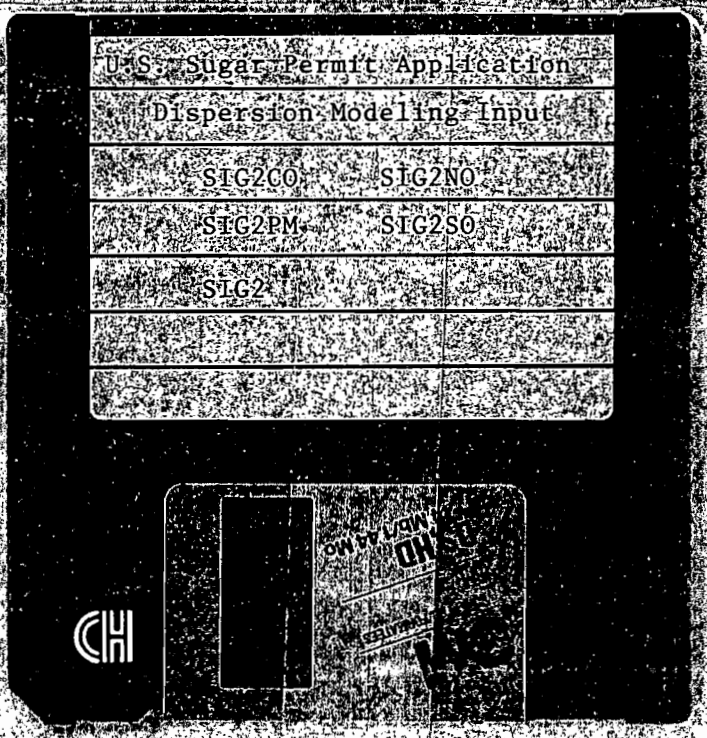
   C:\MKDIR "INPUT" (press enter)
   C:\MKDIR "OUTPUT" (press enter)

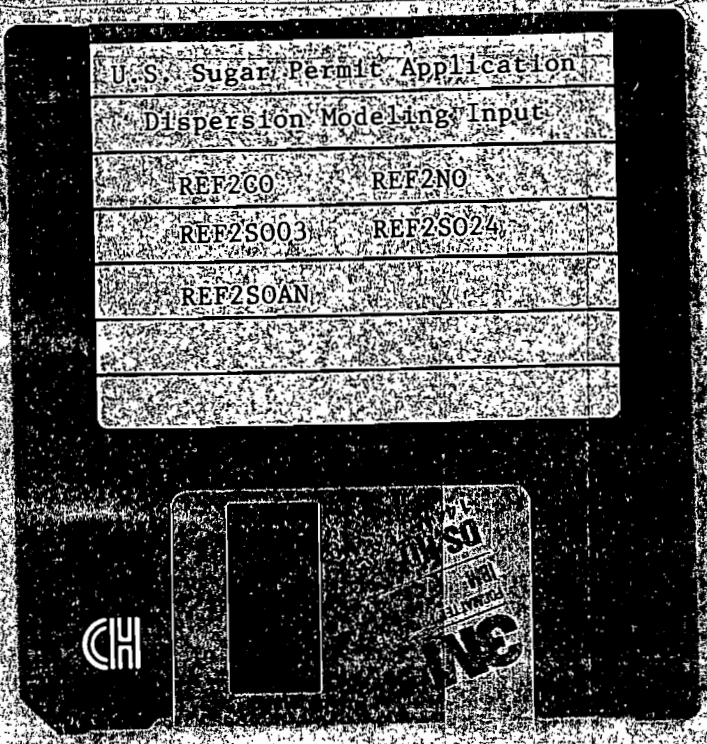
2. Load diskette files you wish to use into either the Input or Output directory. At the directory prompt type the file name and press enter.

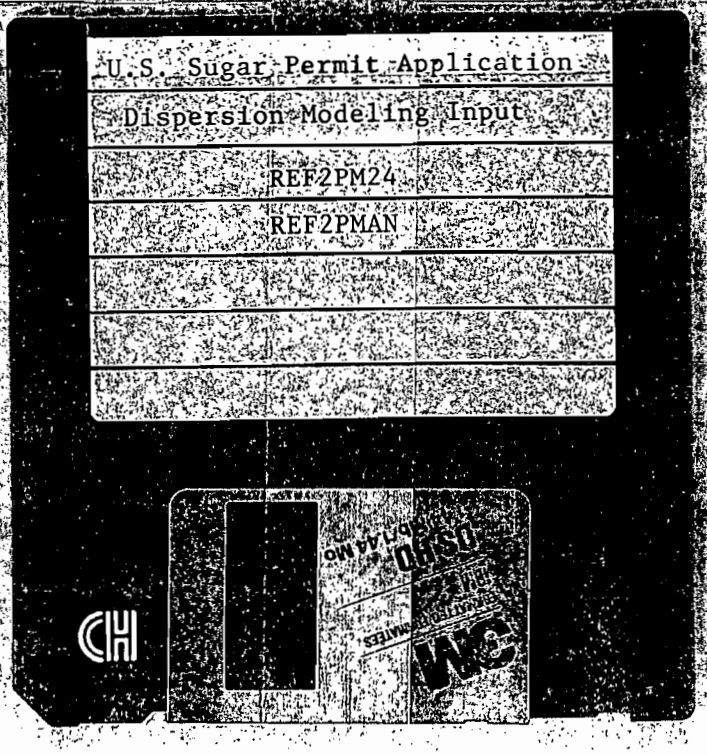
   C:\INPUT\>"File Name" (press enter)

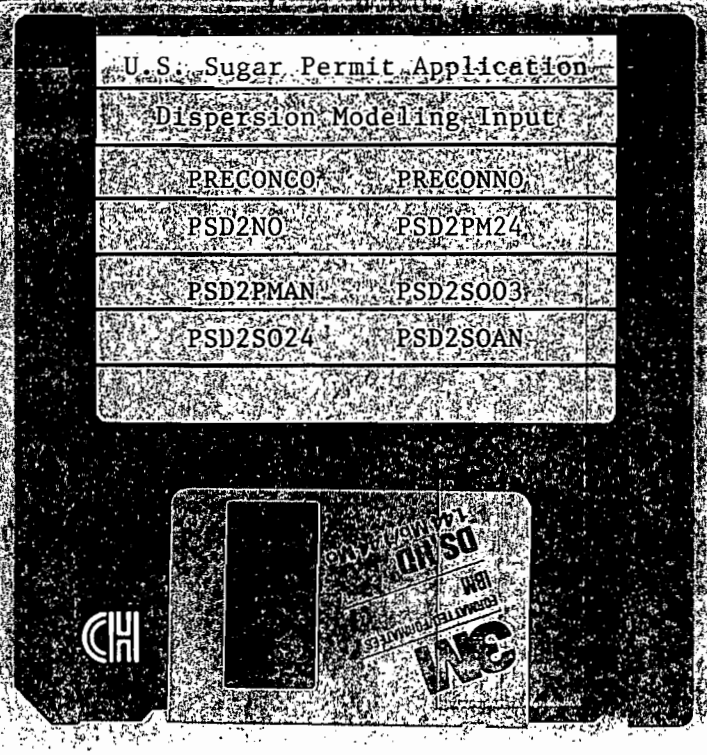
3. These files are self extracting, once you press enter the files will begin to decompress. Make sure you have enough room on your hard drive. If at any point you wish to terminate the process press Ctrl + C.

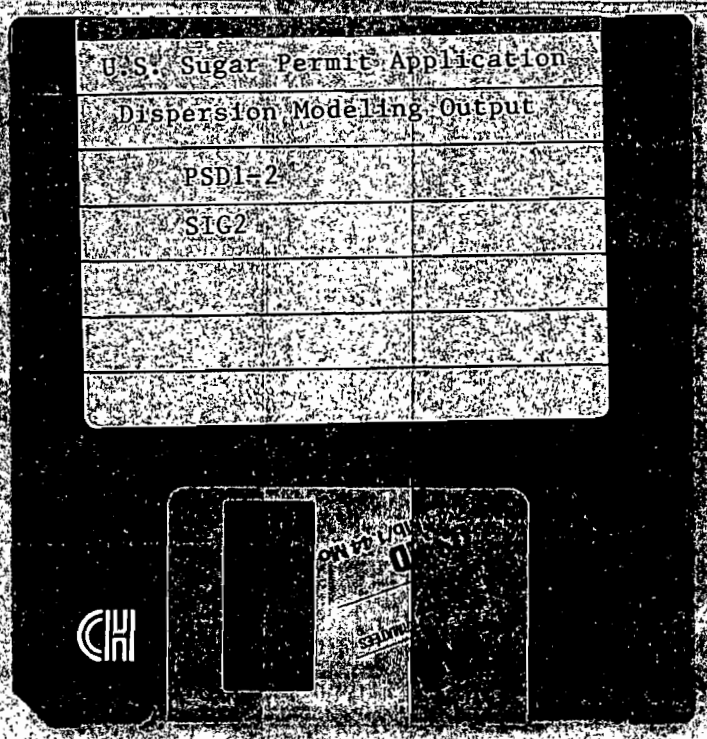
[1] These diskettes are formatted for MS-DOS computers.

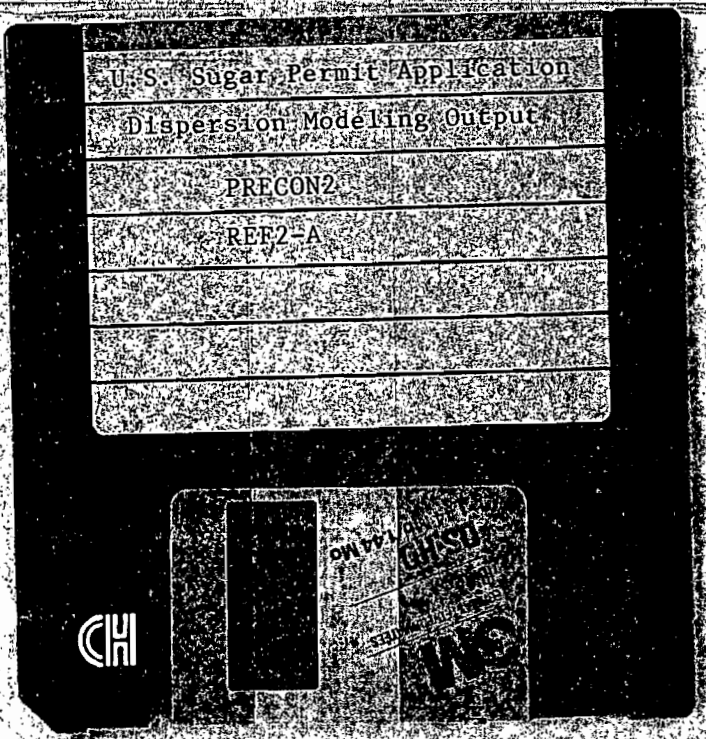

U.S. Sugar Permit Application
Dispersion Modeling Input
SIG2CO SIG2NO
SIG2PM SIG2SO
SIG2

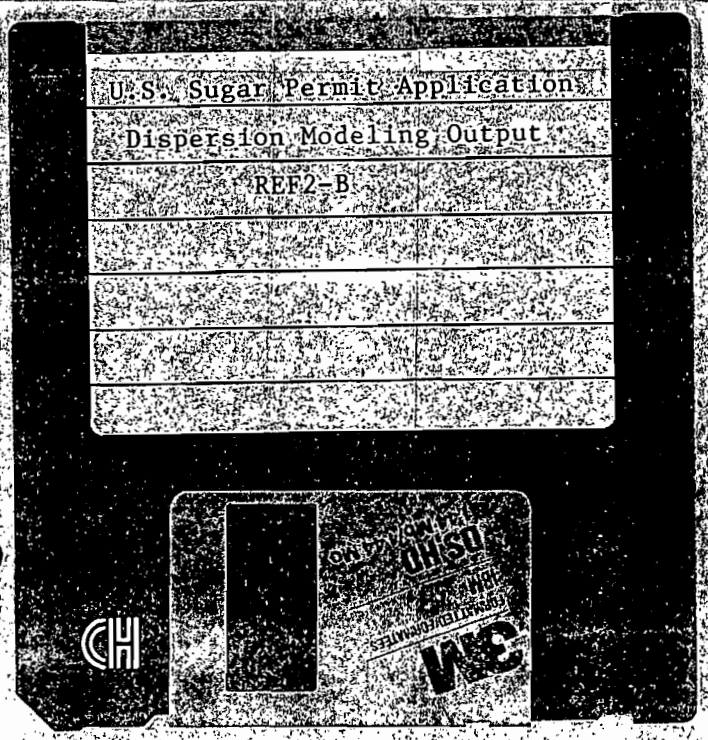

U.S. Sugar Permit Application
Dispersion Modeling Input
REF2CO REF2NO
REF2SO03 REF2SO24
REF2SOAN

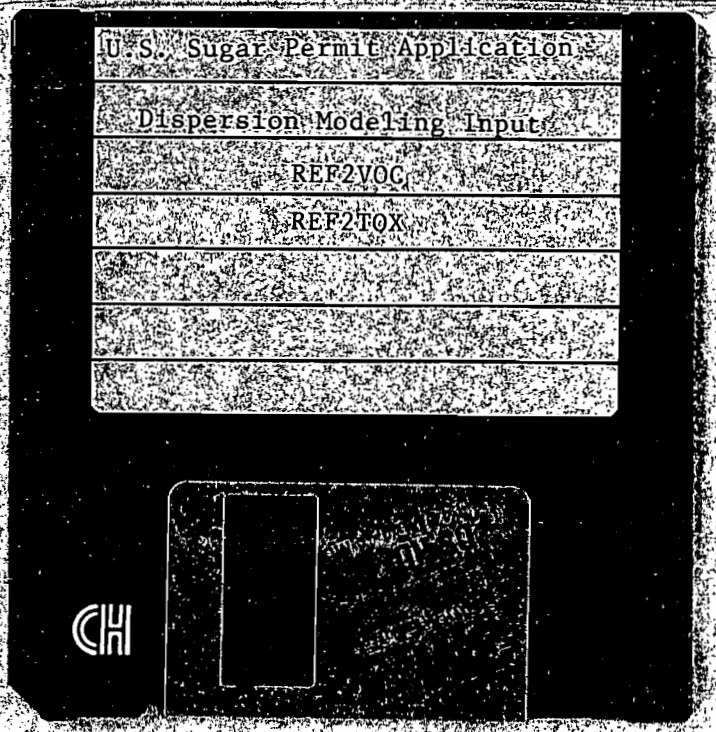

U.S. Sugar Permit Application
Dispersion Modeling Input
REF2PM24
REF2PMAN


U.S. Sugar Permit Application
Dispersion Modeling Input
PRECONCO PRECONNO
PSD2NO PSD2PM24
PSD2PMAN PSD2SO03
PSD2SO24 PSD2SOAN


U.S. Sugar Permit Application
Dispersion Modeling Output
PSD1-2
SIG2


U.S. Sugar Permit Application
Dispersion Modeling Output
PRECON2
REF2-A


U.S. Sugar Permit Application
Dispersion Modeling Output
REF2-B


U.S. Sugar Permit Application
Dispersion Modeling Input
REF2VOC
REF2TOX