

EXHIBITS

**Plainfield Renewable Energy LLC
Noise Assessment Study**

Prepared by

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Noise

Introduction

A noise assessment study has been performed for this project. The assessment consisted of two parts: background noise measurements in the vicinity of the proposed project, and a noise modeling study. The background noise measurements were taken on July 26, 2006, in order to establish current noise levels in the area. The noise modeling study was performed by modeling a combination of vendor supplied and derived noise data for the major noise producing equipment, and by determining projected noise levels in the surrounding community.

The proposed project is located in an Industrial Zone. The site is bordered by Norwich Road (Route 12) to the East; Millbrook Road to the South; a large distribution facility and RR tracks to the West; and a cemetery to the North. There are five (5) residences within 800 feet to 1,000 feet of the site.

General Information on Noise

Noise is defined as unwanted sound resulting from vibrations in the air. Excessive noise can cause annoyance and adverse health effects. Annoyance can include sleep disturbance and speech interference. It can also distract attention and make activities more difficult to perform (EPA, 1978).

The range of pressures that cause the vibrations that create noise is large. Noise is therefore measured on a logarithmic scale, expressed in decibels (dB). Noise is typically measured on the A-weighted scale (dBA). The A-weighting scale was developed and has been shown to provide a good correlation with the human response to sound and is the most widely used descriptor for community noise assessments. (Harris, 1991).

With regards to noise, Section 6.32.6(n) of the Town of Plainfield refers to the State of Ct. Noise Regulations (RCSA Sec. 22a-69-1 to 22a-69-7). Therefore, the State of Ct. Noise Regulations are applicable to the proposed project. The project is designed to

achieve compliance with these standards.

Noise Standards

The State of Ct. has enacted regulations which limit the amount of noise which may be transferred from one property to another. As background, it should be pointed out that both this report and the State of Ct. Noise Regulations utilize the dBA scale. This scale is used because it closely represents the response characteristic of the human ear to loudness. In pertinent part, the Regulations provide as follows:

Definitions -

- "daytime means 7:00 a.m. to 10:00 p.m. local time."

(Sec. 22a-69-1.1(h)).

- "nighttime means 10:00 p.m. to 7:00 a.m. local time."

(Sec. 22a-69-1.1(n)).

- "background noise means noise which exists at a point as a result of the combination of many distant sources, individually indistinguishable. In statistical terms, it is the level which is exceeded 90% of the time in which the measurement is taken."

(Sec. 22a-69-1.2(c)).

Exclusions -

- "The unamplified sounding of the human voice."

(Sec. 22a-69-1.7(b)).

- "Back-up alarms required by OSHA or other State or Federal safety regulations."

(Sec. 22a-69-1.7(h)).

Noise Zones -

- An Emitter in a Class "C" Noise Zone (Industrial), shall not emit noise exceeding 70 dBA when measured at another Industrial Zone, day or night.

- The Class "C" Industrial Emitter shall not exceed 61 dBA, during the daytime, at a residential receptor's property (Class "A"); or 51 dBA during the nighttime, at a residential receptor's property (Class "A"). A Class "C" Emitter (Industrial) shall not

exceed a noise level of 66 dBA when measured at a Class "B" Noise Zone (Commercial areas), day or night. (Sec. 22a-69-3.5(a)).

The proposed project is an industrial use in an industrially zoned area, Class "C" under the noise standard. The nearest noise sensitive areas are Class "A" lands of residential use approximately 800 feet to 1,000 feet from the proposed site. These residences are on Norwich Road (Route 12), and on Millbrook Road.

Noise Monitoring Methodology

Background noise measurements were taken between 3:00 p.m. and 8:00 p.m. on July 26, 2006 at a total of five (5) locations. The program consisted of 10-20 minute measurement periods at each location, and rotating between locations over the time period listed. A Quest precision Type 1 sound level meter was used with a windscreen. The meter meets ANSI S1.4-1983 requirements. The meter was calibrated at 124 dB, 1KHz with a Quest calibrator. The windscreen reduces wind generated noise during monitoring.

The weather conditions consisted of mostly clear skies with light winds, estimated to be 5 miles per hour during the day and evening. Temperatures ranged between 80-85 degrees F. Contributing noise sources in the area included motor vehicle traffic on Route 395, and on Route 12.

The five (5) background measurement locations are shown on Figure 1, and listed on TABLE 1. A summary of the overall dBA measured data are provided in TABLE 1.

The data was based on manufacturer's noise data and on previous experience. A review of the data in TABLE 1 reveals that noise levels from the proposed project are expected to be in compliance with the Ct. Noise Regulations at all locations, including those bordering residential zones.

The modeling analysis was conservative in nature and the calculated noise levels are anticipated to be the "worst case" levels. It was based on a standard metal turbine building, commonly referred to as a Butler building. This building type has a noise attenuation of 20 dBA. The acoustical treatment of the outdoor fan is estimated to have a noise reduction of 10 dBA.

Discrete Tone Noises

The outdoor noise sources at the facility have the potential to generate discrete tone noises as defined in the Ct. Noise Regulations. These sources can generate a specific "pitch" of sound which can be audible above the remaining broadband sound generated by the source. If a source generates a discrete tone noise as defined in the Ct. Noise Regulations, the allowable overall level of noise is reduced by 5 dBA.

It is not possible to model the potential for discrete tone noise, since this would require 1/3 octave band data, which were not available (and typically are not available) from any of the equipment vendors. Therefore, the facility design will include a specification to all equipment vendors and construction contractors that, in addition to discrete tones noises meeting the noise levels which were incorporated into this analysis, these discrete tone noises must be controlled, either through physical controls on the source, or through the use of the previously listed acoustical enclosures.

Noise Control Measures

The noise modeling revealed that noise control measures may have to be considered in order to achieve compliance with the Ct. Noise Regulations, and to minimize potential noise impacts at the bordering residential areas. These measures included the following:

- An acoustically treated turbine building.
- Acoustical treatment for the fans.

Conclusions

Background noise levels were taken in order to establish the existing noise levels in the area. The data results demonstrated that existing levels are below the standard. The overall noise environment is affected by vehicular traffic.

The State of Ct. has standards that limit noise from this type of facility. Specifically, noise generated by the facility may not exceed 51 dBA at night, or 61 dBA during the day, at any residential area; 66 dBA, day or night, at any commercial area; and 70 dBA, day or night, at any Industrial area.

The modeling results revealed that the proposed facility, with noise control measures incorporated, will be in compliance with the Ct. Noise Regulations.

TABLE 1

Existing Background Levels and Projected Noise Levels To The Receptor Points Shown On Figure 1. All Levels Are In The dBA scale.

	Existing Bkgnd Level	Ct. Noise Reg. Standard Day / Nite	Projected dBA
Residential receptor 1	50	61 / 51	46
Industrial receptor 2	55	70	50
Residential receptor 3	50	61 / 51	40
Residential receptor 4	50	61 / 51	38
Residential receptor 5	50	61 / 51	37

Estimated Distance (feet) and Direction From The Proposed Facility To The Noise Measurement Locations.

Receptor 1 = 800 feet to the East of the proposed facility.

Receptor 2 = 500 feet to the East of the proposed facility.

Receptor 3 = 900 feet to the East of the proposed facility.

Receptor 4 = 1,000 feet to the South of the proposed facility.

Receptor 5 = 1,200 feet to the Southwest of the proposed facility.

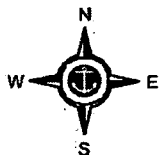
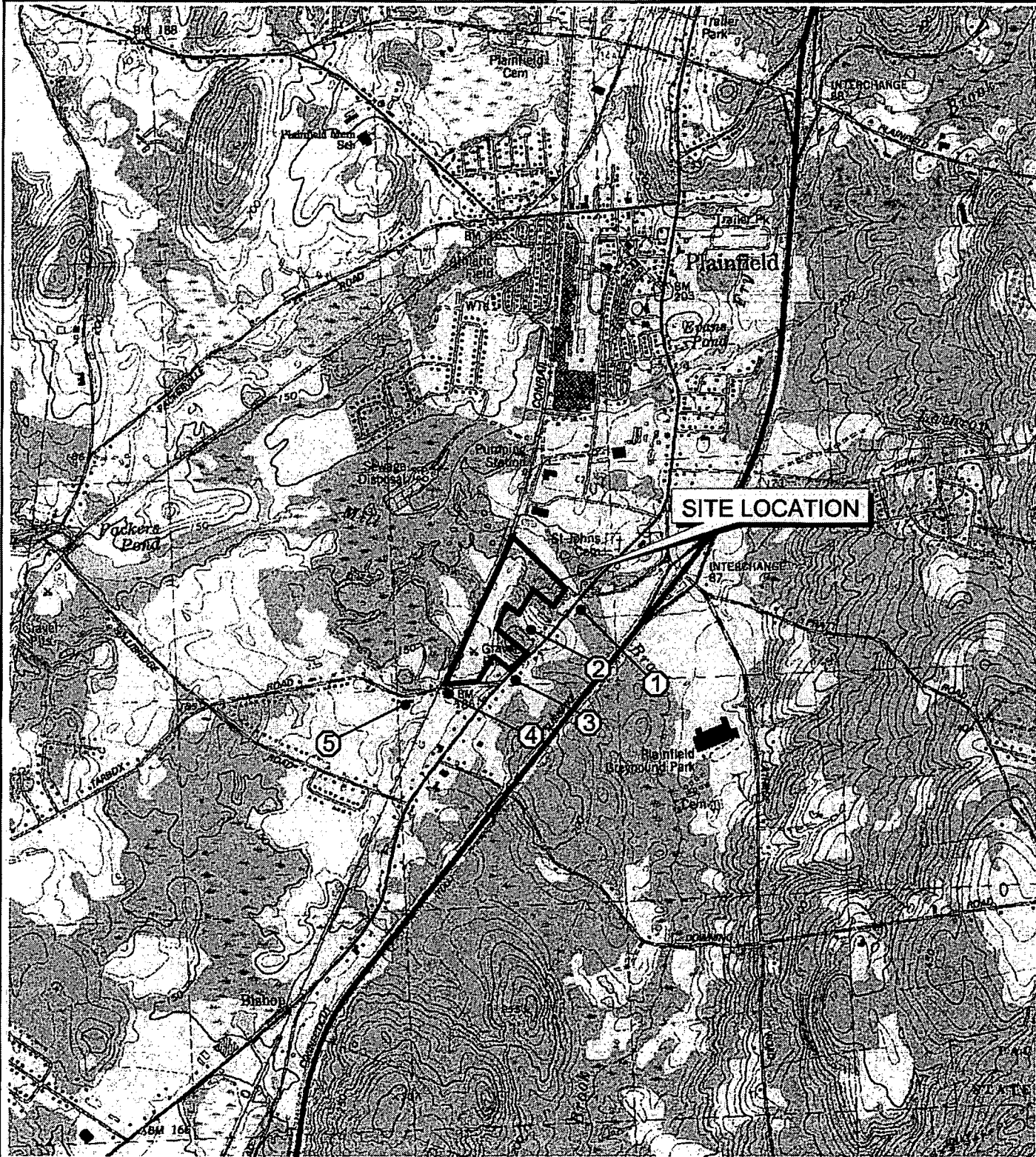
HMB ACOUSTICS, LLC

PLAINFIELD RENEWABLE
ENERGY, LLC
MILL BROOK ROAD
PLAINFIELD, CONNECTICUT

SITE

PROJECT
952-01

DATE
AUG. 2006



2000 0 2000 Feet



USGS TOPO QUAD #58
PLAINFIELD, CT
41 39' 50"N 71 55' 28"W



B



M.I. HOLZMAN & ASSOCIATES, LLC

Environmental Engineering ■ Impact Assessment ■ Compliance Services

COOLING TOWER IMPACTS ANALYSIS

PLAINFIELD RENEWABLE ENERGY PROJECT

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TABLE OF CONTENTS

Table Of Contents	i
1.0 Introduction	2
2.0 Input Parameters	2
3.0 Cooling Tower Plume Dimension Statistics	5
4.0 Plume Fogging	5
5.0 Rime Icing	5
6.0 Salt Deposition	6
7.0 Plume Shadowing	6
8.0 Summary and Conclusions	7

Tables

Table 1 - Input parameters for the SACTI model	2
Table 2 - Representative Wind Directions Used in SACTI Modeling	3
Table 3 - Wind Direction Equivalences for the 16 Wind Directions Used in SACTI	4

Figures

Figure 1 - Total Hours of Fog for 5 years	8
Figure 2 - Total Hours of Rime Ice for 5 years	9
Figure 3 - Annual Average Salt Deposition Over 5 years	10
Figure 4 - Total Hours of Shadowing for 5 years	11
Figure 5 - Annual Average Energy Loss Due to Shadowing in MJ/m ²	12

Appendices

A SACTI Model Results Summary Tables	
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1.0 INTRODUCTION

The Plainfield Renewable Energy (PRE) Project will employ a mechanical draft evaporative cooling tower to remove waste heat from the steam condenser cooling water at the proposed biomass power plant. Mechanical draft cooling towers can produce some adverse environmental effects due to the liquid water plume coming directly from the tower (known as “drift”), as well as from the secondary liquid water formation caused by the condensation of water vapor (“fogging”). These adverse effects include: local shading of the sun due to a visible plume, fogging at ground level and ice build-up, and deposition of dissolved salt particles.

A detailed modeling analysis of cooling tower impacts was performed to evaluate the potential for these impacts from operation of the PRE Project using the Seasonal/Annual Cooling Tower Impact (SACTI) model (Version 09-01-86). The SACTI model was funded by the Electric Power Research Institute (EPRI). It is based on studies conducted by Argonne National Laboratory that evaluated the theory and performance of over 30 cooling tower plume and drift models. The SACTI model was used for this analysis because it is a validated cooling tower plume and drift model that has been widely used in preparing environmental assessments of cooling towers for regulatory purposes.

The SACTI model was used to evaluate the following types of annual cooling tower impacts:

1. The frequency of occurrence of cooling tower plume heights, plume lengths, and plume radii;
2. The frequency of occurrence and spatial distribution of ground-level fogging and rime ice deposition;
3. The spatial distribution and rate of salt deposition; and
4. The frequency and extent of plume shadowing effects.

2.0 INPUT PARAMETERS

The SACTI model uses cooling tower design and operational data along with hourly meteorological data to predict the probable impact of cooling tower plumes. The input to SACTI is summarized in Table 1.

Table 1 - Input parameters for the SACTI model

Input Parameter	Value Provided by Vendor	Value in SACTI-required Units
Type	Mechanical Draft	Linear Mechanical Draft
Number of tower housings	1	1
Number of cells	2	2
Tower Height	42.84 feet	13.06 meters
Tower Width	42.67 feet	13.01 meters

Input Parameter	Value Provided by Vendor	Value in SACTI-required Units
Tower Length	96.67 feet	29.47 meters
Exit Diameter of Fans	28 feet	8.53 meters
Effective Diameter ¹	39.59 feet	12.07 meters
Maximum heat dissipation rate	240 MMBtu/hr	70.34 MW
Maximum total input air flow rate	7,605,000 lb/hr	958.21 kg/s
Design circulating water flow rate	24,000 gpm	----
Drift loss rate ²	0.001%	14.13 g/s
Salt Concentration	845 mg/L TDS	0.00085 g/g
Site Latitude	41.6628 ⁰ N	41.6628 ⁰ N
Site Longitude	71.9249 ⁰ W	71.9249 ⁰ W
Surface roughness height	Nearly barren with low growing vegetation	0.1 cm
Orientation of Tower (Angle measured East of North)	24.5 degrees	24.5 degrees

Notes:

1. The effective diameter is calculated as $D_{\text{eff}} = D \cdot (N)^{1/2}$, where D is the cell diameter and N is the number of cells.
2. The drift rate is calculated as $(\% \text{ drift})/100 \cdot \text{circulation rate} \cdot \text{density of water}$.

The default density of 2.17 g/cc of salt was used, as well as the default drift droplet sizes. Other input data required by the model is the specification of representative wind directions and a wind equivalence array. Representative wind directions are selected to account for the symmetry in the modeling. For example, if a 1x2 linear cooling tower is oriented directly along the x-axis (or East-West direction), the plume generated from the merging of the two plumes will be the same for winds coming from the east as it would be for winds coming from the west. The user can choose up to 5 wind directions and specify what wind directions will be equivalent to each other based on the symmetry. These parameters were developed following the recommendations in the SACTI model User's Manual and they are presented in Tables 2 and 3.

Table 2 - Representative Wind Directions Used in SACTI Modeling

Wind Direction ID	Wind Direction (Deg)
1	24.5
2	47
3	69.5
4	92
5	114.5

Table 3 - Wind Direction Equivalences for the 16 Wind Directions Used in SACTI

Wind Direction (Deg.)	Equivalent Wind Direction ID
0	2
22.5	1
45	2
67.5	3
90	4
112.5	5
135	4
157.5	3
180	2
202.5	1
225	2
247.5	3
270	4
292.5	5
315	4
337.5	3

The SACTI modeling analysis was performed using the same meteorological data used in the dispersion modeling analysis in support of PRE's CTDEP air permit application: five years (1970-1974) of hourly surface observations from Bradley International Airport in Windsor Locks, Connecticut and the same five years of mixing height data from Albany County Airport in Albany, New York. This is the dataset that is routinely used by the CTDEP for dispersion modeling analyses in support of permit applications. The other meteorological parameters required by SACTI include monthly clearness index and total average daily insolation values which were obtained from the data for Hartford, Connecticut that is presented in Appendix A of the SACTI User's Manual.

The SACTI model uses a polar receptor grid with the origin located at the center of the cooling tower housing. SACTI uses receptors that are located on 16 wind direction radials spaced at 22.5-degree intervals. For fogging and icing simulations, the default receptors are spaced along each radial at 100-meter intervals out to 1,600 meters. Plume shadowing impacts were modeled out to a distance of 8,000 meters with a distance between the receptors of 200 meters. Visible plume and salt deposition calculations were modeled out to a distance of 10,000 meters with a distance between the receptors of 100 m. These default downwind distances and receptor intervals were used in the modeling.

The SACTI model includes the treatment of aerodynamic downwash effects of the cooling tower housing on the cooling tower plume. SACTI also has the capability to evaluate downwash effects of additional structures using the "external plate" option; this option was not used. Additional wake structures will enhance the turbulent mixing of the plume and increases the

dilution of the cooling tower vapor plume. In order to be conservative, only the downwash effects from the cooling tower itself were considered. The SACTI model assumes flat terrain. The User's Manual gives guidelines for adjusting the results to complex terrain. Since flat terrain is expected to yield the most conservative result, no complex terrain adjustments were made to the SACTI model results.

3.0 COOLING TOWER PLUME DIMENSION STATISTICS

The SACTI modeling results are summarized in Appendix A for the total 5 years of modeled meteorology. The annual statistics for the cooling tower plume (plume height, length and radius frequencies) show that the visible plume will typically have the following dimensions: 100 meters in length; 20 to 30 m in height above the tower with about a 15 meter radius. These are considered typical dimensions since the frequency of these plume dimensions occurring summed over all wind directions is greater than 50 percent of the time. Tables A-1 through A-3 summarize the annual average plume dimensional data (average of five years). It can be seen in Table A-1, for example, that the plume length extends to 100 m for 100 percent of the time (when the 16 wind directions are summed). Therefore, the plume will typically only be visible on-site. The sections that follow will discuss the frequency and extent of icing, fogging, salt deposition and plume shadowing due to the cooling tower plume. Note that nighttime hours, hours of precipitation and low visibility were not removed from meteorological data set. During these times, visibility cannot be further reduced.

4.0 PLUME FOGGING

The total hours of fog as a function of downwind distance and direction were estimated using the SACTI model for each of the 5 years of meteorological data input. A table containing the totaled data (sum of five years) appears in Appendix A (see Table A-4). Each individual year can be viewed in the SACTI output files, which are available upon request. The maximum hours of fogging are estimated by SACTI to be 14.0 for the 5-year period (or 2.8 hours per year on average – or about 0.03 percent of the time). The predominant location of the fogging is to the south of the tower, extending to a maximum distance of approximately 1 km. The contour plot of total hours of fog for the five-year period is presented in Figure 1. Contour levels are from 1, 5, 9 and 13 hours. Two downwind maximums occur, one located 400 meters to the south within the Gravel Pit with a value of 9 hours. Another occurs approximately 600 meters downwind between the Connecticut Turnpike (Interstate 395) and Norwich Road (State Road 12) with a value of 13 hours. Since these hours are a sum over 5 years, the actual annual hours are expected to be 1.8 and 2.6 hours, respectively, for each modeled maximum. Therefore, fogging associated with the Project's cooling tower is expected to be insignificant.

5.0 RIME ICING

Total hours of rime icing as a function of downwind distance and direction were estimated using the SACTI model for each of the 5 years. A table containing the totaled data (sum of five years) appears in Appendix A (see Table A-5). Each individual year can be viewed in the SACTI

output files, which are available upon request. The maximum hours of icing are calculated by SACTI to be 0.8 hours for the entire 5-year period (0.16 hours per year on average). The contour plot of total hours of rime icing for the 5-year period is presented in Figure 2. The contour levels are from 0.1, 0.3 and 0.5 hours. The hours of icing are shown to occur parallel to Norwich Road (State Road 12), with the road experiencing between 0.1 and 0.3 hours of icing over 5 years. The predicted hours are very small and so are highly unlikely to occur. Therefore, there will be little to no concern for rime icing due to the proposed cooling tower.

6.0 SALT DEPOSITION

Average salt deposition rate as a function of downwind distance and direction were estimated using the SACTI model for each of the 5 years. A table containing the annual average data (average of five years) appears in Appendix A (see Table A-6). Each individual year can be viewed in the SACTI output files, which are available upon request. The majority of salt is deposited within 200 meters of the tower. The maximum deposition rate occurs for 1970 with a value of 675.15 kg/m²-month and occurs 100 meters north of the tower. A contour plot of the average deposition over the 5-year time period is shown in Figure 3. Norwich Road sees a salt deposition rate of 10 kg/m²-month on average. These impacts are not considered to be significant.

7.0 PLUME SHADOWING

The SACTI model predicts plume shadowing in terms of both hours of plume shadowing, as well as energy loss (MJ/m²). The total number of hours of plume shadowing over the 5-year period is shown in Table A-7 of Appendix A as a function of radial direction and downwind distance. The maximum potential impact of plume shadowing over the 5 year period was 202.3 hours and occurred in 1972 and approximately 200 meters west-south-west from the tower (also see Appendix A for individual years). The maximum impacts are seen within a 200 meter radius of the cooling tower. Norwich Road (State Road 12) experiences between 100 and 200 hours of plume shadowing in the vicinity of the proposed site location over the 5 years modeled. This represents an annual percentage of between 0.3 and 0.5 % of the time. The maximum impacts further downwind are 60 hours over 5 years (or 12 hours per year on average) and occur approximately 2 km to the south of the tower in the vicinity of the Connecticut Turnpike. These impacts are considered minimal. A contour plot of the total hours of plume shadowing is shown in Figure 4. Contour levels are 50, 60, 100, 300 and 600 hours. Figure 5 shows the contour levels of energy loss (annual average of 5 years). Contour levels are 1, 2, 3, 4, 5 and 10 MJ/m². Tabular results from SACTI are presented in Table A-8 (annual average). A similar southern impact pattern given by hours of plume shadowing is also observed for energy loss. Plume shadowing is not expected to be significant for the proposed cooling tower.

8.0 SUMMARY AND CONCLUSIONS

The Plainfield Renewable Energy Project cooling tower was evaluated for adverse environmental impacts using the SACTI model. Based on this analysis, no adverse off-site environmental effects are expected.

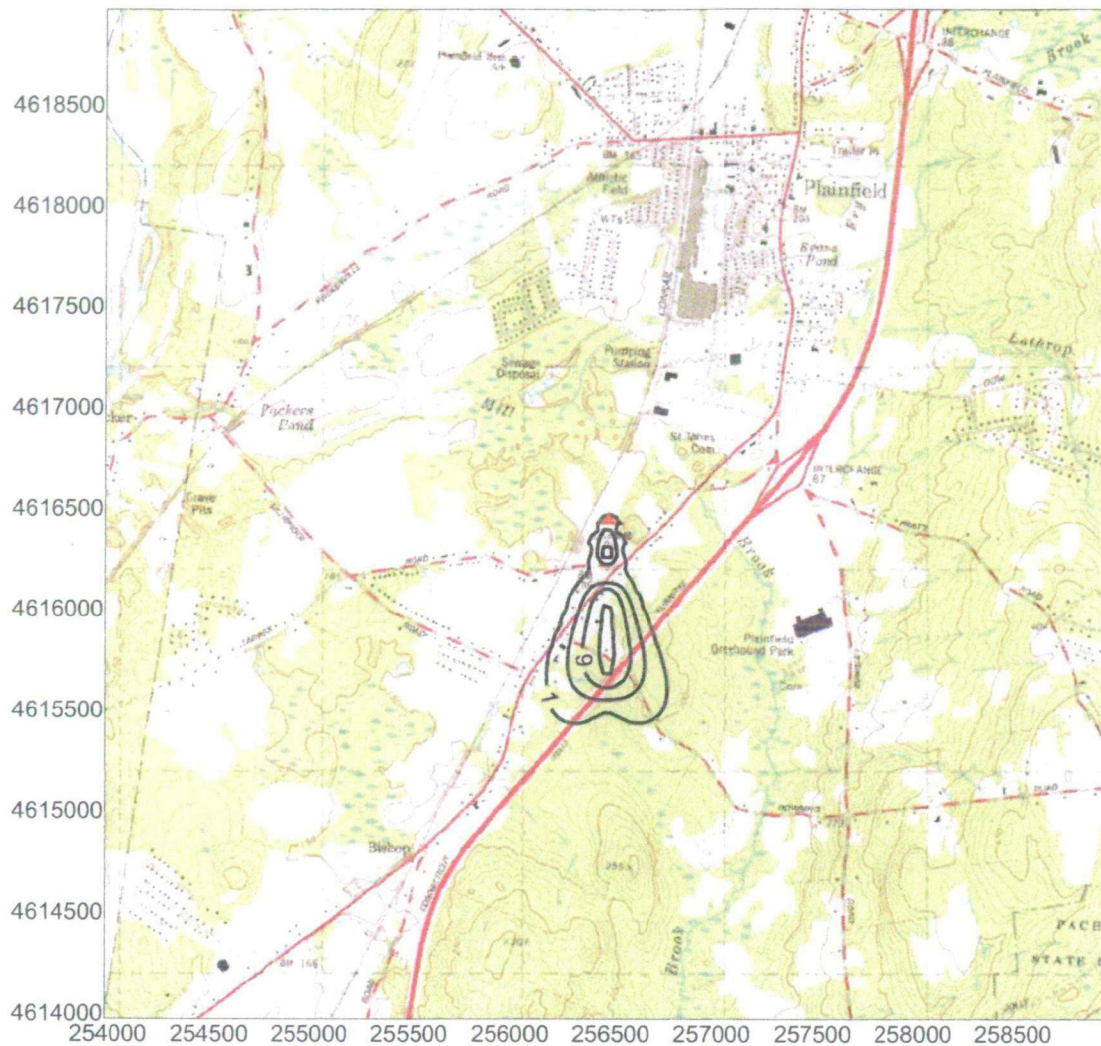


Figure 1 - Total Hours of Fog for 5 years

(Contours are 1, 5, 9 and 13 hours)

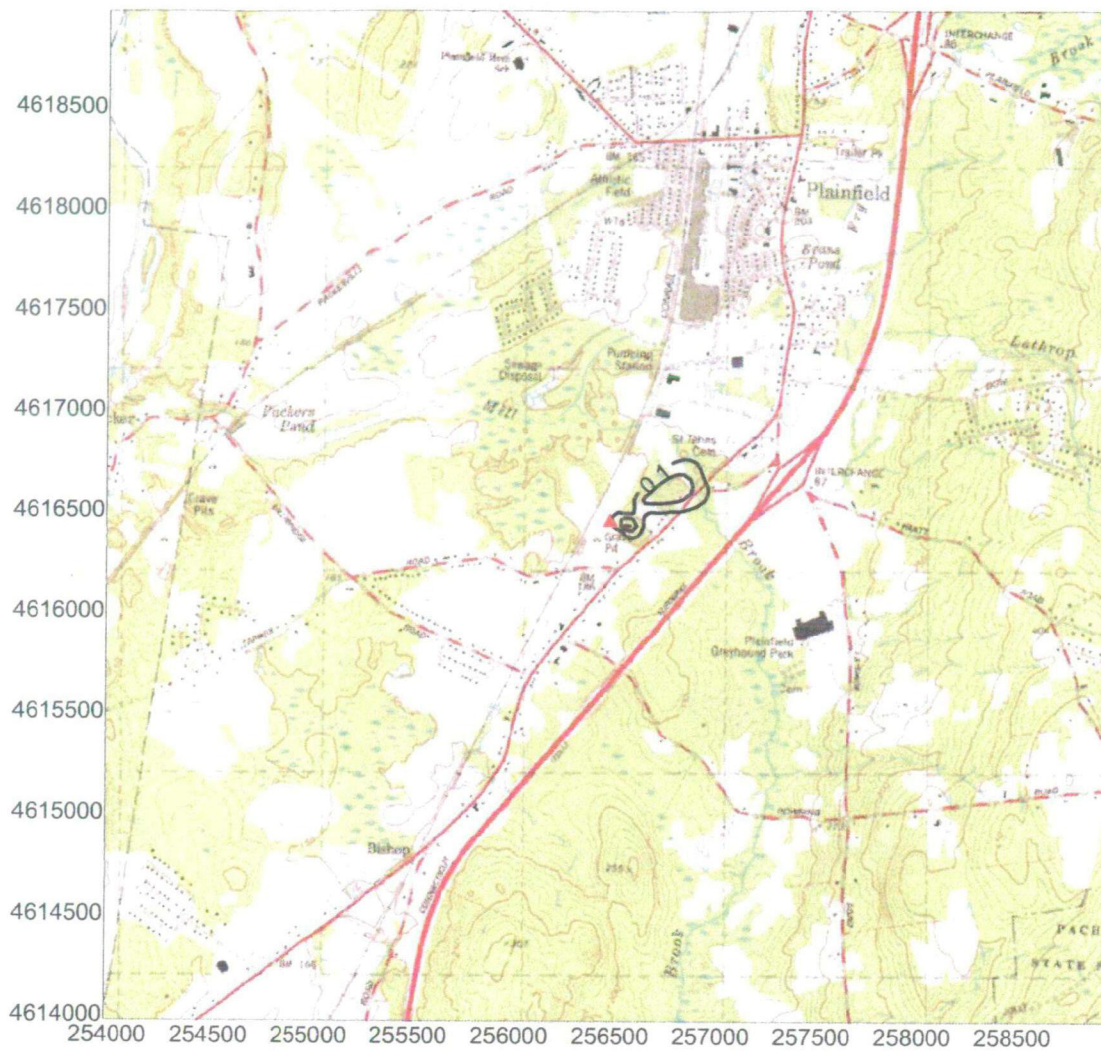


Figure 2 - Total Hours of Rime Ice for 5 years
(Contours are from 0.1, 0.3 and 0.5 hours)

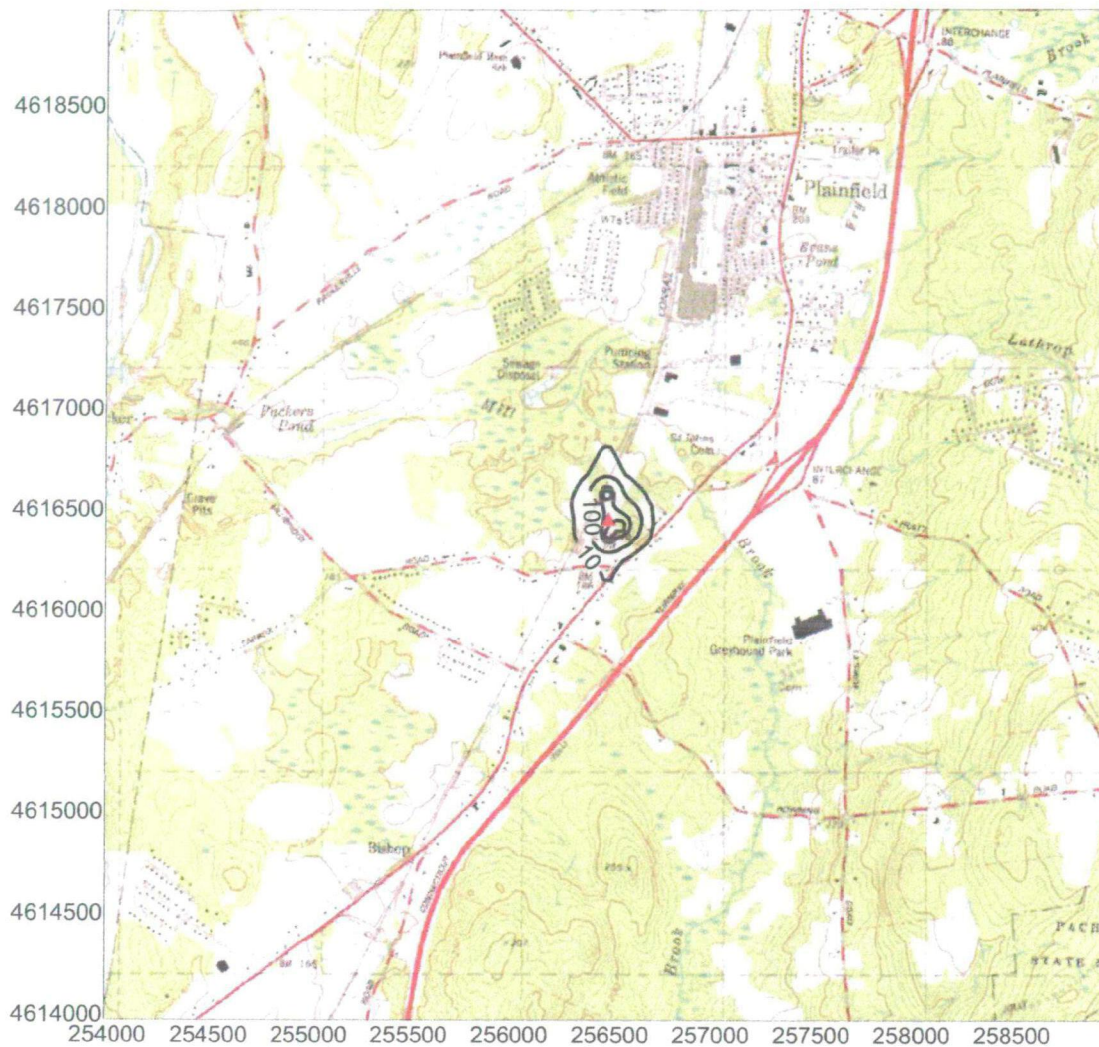


Figure 3 - Annual Average Salt Deposition Over 5 years

(Contours are from 10, 100, 300 and 400 kg/m²-month)

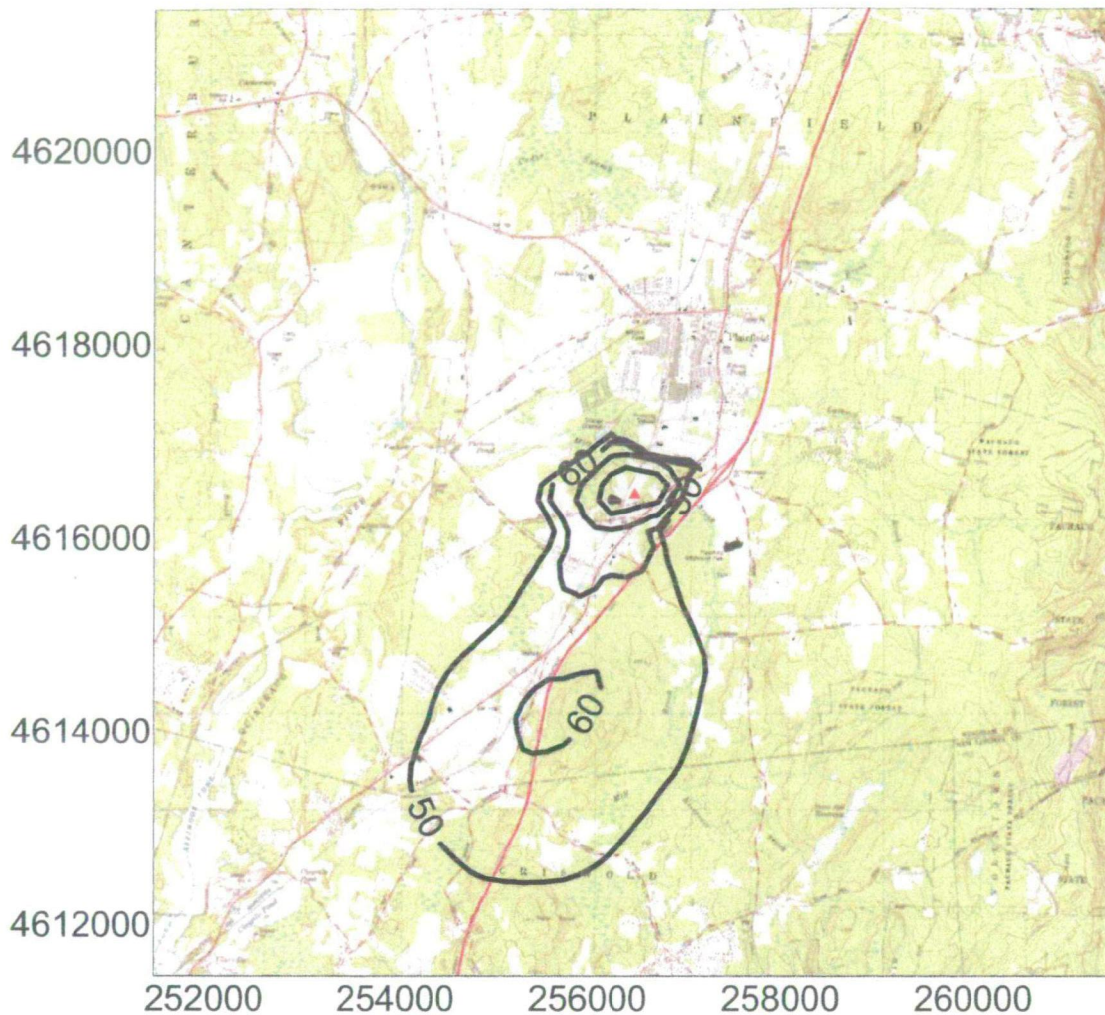


Figure 4 - Total Hours of Shadowing for 5 years
(Contours are 50, 60, 100, 300 and 600 hours)

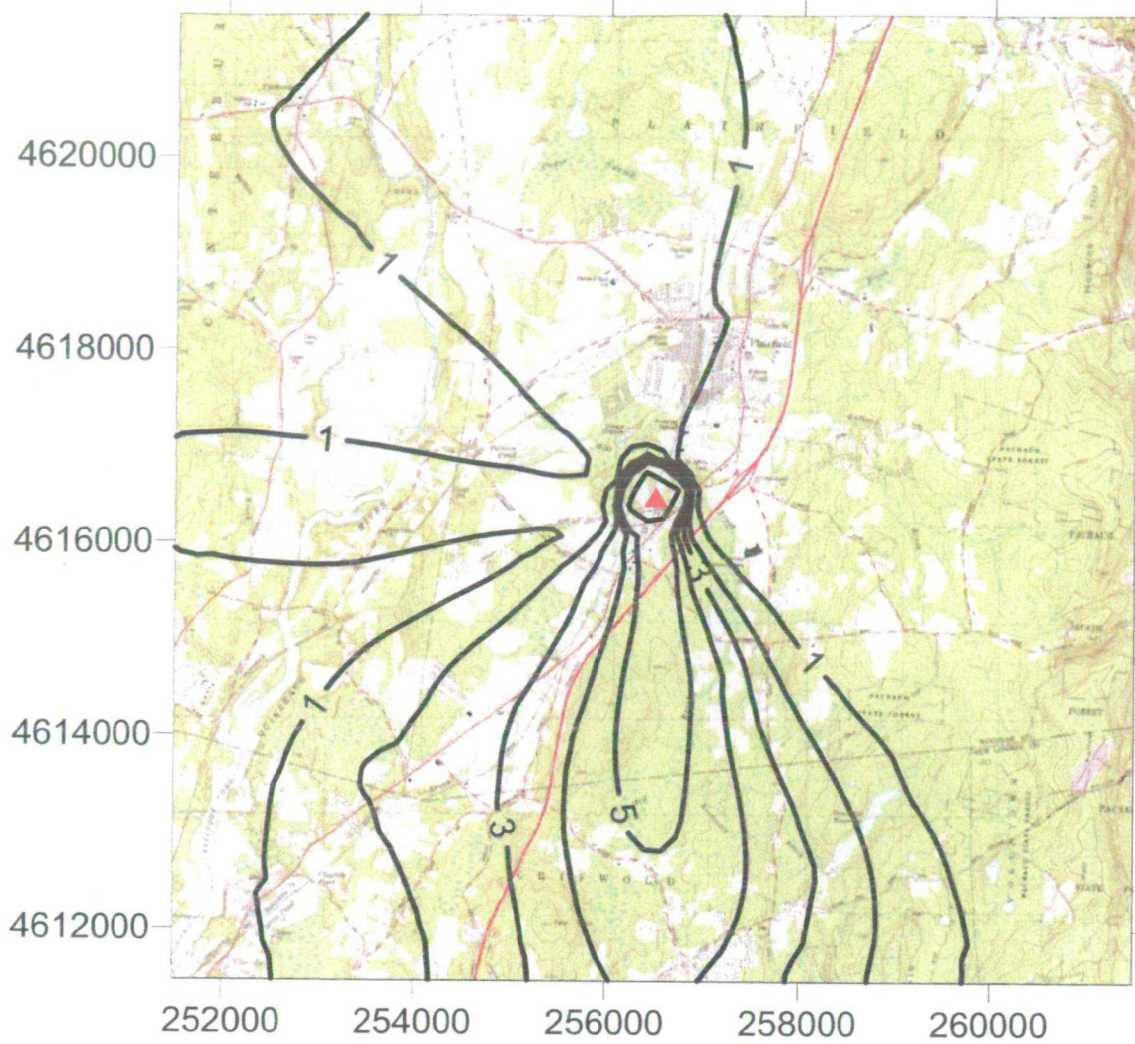


Figure 5 - Annual Average Energy Loss Due to Shadowing in MJ/m²

(Contours are 1, 2, 3, 4, 5 and 10 MJ/m²)

Appendix A

SACTI Model Results Summary Tables

Table A-1. Plume Length Frequency (%) (Average of 5 years: 1970 - 1974)

[illegible]

Table A-2. Plume Length Frequency (%) (Average of 5 years: 1970 - 1974)

Table A-2: Plume Length Frequency (%) (Average of 5 years: 1970-1974)																
Height Above the Tower (m)	WIND FROM										ALL					
	N		S		E		W		NNW		NW		NNW		ALL	
	NNE	SSW	ENE	WSW	ESE	WNW	ENE	WSW	SSE	NNW	ESE	WNW	ENE	WSW	SSE	SUM
10	15.276	4.91	3.02	1.658	1.356	2.996	6.266	16.122	4.478	3.568	4.498	6.522	8.428	10.632	8.466	100
20	15.132	4.89	2.996	1.566	1.26	2.722	5.688	15.308	4.402	3.452	4.01	5.42	7.182	9.084	7.984	92.796
30	13.218	4.042	2.284	1.042	0.78	0.928	3.934	10.394	2.522	2.09	3.782	4.268	5.028	7.056	6.336	67.302
40	11.582	3.264	1.794	0.72	0.5	0.414	2.718	7.23	1.776	1.538	2.026	2.314	1.618	4.36	5.028	48.09
50	9.83	2.624	1.35	0.492	0.266	0.154	1.864	5.176	1.294	1.108	1.402	1.13	0.266	2.148	3.76	33.55
60	7.686	1.864	0.952	0.246	0.12	0.096	1.344	3.452	0.854	0.694	0.65	0.392	0.142	0.69	1.922	21.044
70	5.112	1.19	0.552	0.106	0.082	0.096	0.532	2.222	0.512	0.378	0.33	0.216	0.142	0.37	0.972	13.026
80	3.08	0.696	0.314	0.076	0.06	0.05	0.284	1.416	0.272	0.172	0.244	0.106	0.06	0.174	0.514	6.632
90	2.71	0.602	0.274	0.04	0.05	0.05	0.134	1.154	0.196	0.128	0.154	0.106	0.06	0.174	0.482	5.522
100	2.15	0.494	0.198	0.034	0.05	0.05	0.034	0.918	0.158	0.098	0.136	0.106	0.06	0.174	0.4794	4.794
110	1.806	0.408	0.172	0.034	0.038	0.05	0.26	0.802	0.118	0.08	0.136	0.106	0.06	0.088	0.492	4.696
120	1.806	0.408	0.172	0.034	0.024	0.05	0.26	0.802	0.118	0.08	0.136	0.106	0.06	0.088	0.492	4.696
130	1.806	0.408	0.172	0.034	0.024	0.05	0.26	0.802	0.118	0.08	0.136	0.106	0.06	0.088	0.492	4.696
140	1.806	0.408	0.172	0.034	0.024	0.05	0.26	0.802	0.118	0.08	0.136	0.106	0.06	0.088	0.492	4.696
150	1.806	0.408	0.172	0.034	0.024	0.05	0.26	0.802	0.118	0.08	0.136	0.106	0.06	0.088	0.492	4.696
160	1.806	0.408	0.172	0.034	0.024	0.05	0.26	0.802	0.118	0.08	0.136	0.106	0.06	0.088	0.492	4.696
170	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
180	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
190	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
200	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
210	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
220	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
230	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
240	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
250	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
260	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
270	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
280	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
290	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
300	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
310	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
320	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
330	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
340	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
350	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
360	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
370	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
380	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
390	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
400	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
410	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
420	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
430	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
440	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
450	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
460	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
470	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
480	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
490	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
500	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
510	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
520	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
530	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
540	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
550	1.542	0.35	0.138	0.024	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
560	1.542	0.35	0.138	0.022	0.024	0.05	0.092	0.688	0.104	0.062	0.102	0.062	0.06	0.088	0.428	4.03
570	1.246	0.292	0.12	0.022	0.024	0.05	0.092	0.578	0.09	0.058	0.094	0.062	0.06	0.088	0.32	3.852
580	1.246	0.292	0.12	0.022	0.024	0.05	0.092	0.578	0.09	0.058	0.094	0.062	0.06	0.088	0.32	3.356
590	0.952	0.292	0.084	0.022	0.024	0.05	0.092	0.448	0.09	0.056	0.094	0.062	0.06	0.088	0.32	2.892

Table A-3. Plume Radius Frequency (%) (Average of 5 years: 1970 - 1974)

Height Above the Tower (m)	WIND FROM										ALL SUM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	PLUME HEADED					DOWNWIND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW		WSW	W	WNW	NW	SE	NW	NNW	SSE	SE	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E	ENE	E

Table A-4. Total Hours of Plume Fog (Sum of 5 years: 1970 - 1974)

Distance from the Tower (m)	*****WIND FROM*****																*****PLUME HEADED*****																*****				*****			
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	ENE	E	ESE	NW	NNW	NNW	N	NNE	SSW	SW	WSW	ENE	E	ESE	NW	NNW	NNW	SE	SSE	SSE	SSE	ALL						
	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	NW	NNW	NNW	NNW	N	NNE	SSW	SW	WSW	ENE	E	ESE	NW	NNW	NNW	SE	SSE	SSE	SSE	SUM						
100	11.9	0.8	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4	0.3	0	0	0	0	0	0	0	15.2						
200	13.5	0.2	0.5	0	0	0	0	0	0.8	0	0	0	0.4	0.2	0	0	0	0	0	0	0	0	0.5	0	0	1	0	0	0	0	0	0	0	16.6						
300	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0.5	0	0	0.7	0	0	0	0	0	0	0	1.2						
400	13.6	1	0.5	0	0	0	0	0	0.1	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0.5	0	0	0.2	0	0	0	0	0	0	0	16						
500	14	1	0.5	0	0	0	0	0	0.5	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	16.1						
600	14	1	0.5	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16						
700	14	1	0.5	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16						
800	13.5	0.7	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.7						
900	6.6	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.8						
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						

Table A-5. Total Hours of Rime Ice (Sum of 5 years: 1970 - 1974)

[illegible]

Table A-6. Annual Average Salt Deposition (kg/km2-month) (Average of 5 years: 1970 - 1974)

Distance from the Tower (m)	WIND FROM																ALL			
	N				S				E				W				NW			
	S	SSW	NNE	SW	ENE	W	E	ENE	SE	SE	SE	SE	WSW	SW	ENE	W	W	W	W	W
100	5.58E+02	2.02E+02	1.12E+02	1.07E+01	6.84E+01	5.84E+01	8.60E+01	1.28E+02	2.52E+02	6.25E+02	1.96E+02	1.43E+02	1.92E+02	2.83E+02	4.07E+02	4.53E+02	3.38E+02	2.56E+02	3.38E+02	2.56E+02
200	5.49E+01	1.79E+01	1.07E+01	1.07E+01	5.81E+00	4.26E+00	6.48E+00	9.52E+00	2.27E+01	6.18E+01	1.73E+01	1.34E+01	1.63E+01	2.13E+01	3.12E+01	3.45E+01	3.04E+01	2.24E+01	3.04E+01	2.24E+01
300	1.41E+01	4.81E+00	2.72E+00	1.51E+00	7.50E+00	1.21E+00	1.82E+00	2.76E+00	5.69E+00	1.82E+00	4.37E+00	3.30E+00	4.28E+00	6.24E+00	8.34E+00	1.03E+01	7.89E+00	5.93E+00	7.89E+00	5.93E+00
400	7.08E+00	2.59E+00	1.39E+00	7.50E+00	1.51E+00	6.68E+01	6.68E+01	1.51E+00	2.83E+00	7.80E+00	2.33E+00	1.71E+00	1.99E+00	3.23E+00	5.45E+00	5.45E+00	3.23E+00	2.93E+00	3.23E+00	2.93E+00
500	5.36E+00	1.93E+00	9.90E+01	3.78E+01	5.48E+01	4.04E+01	4.18E+01	9.40E+01	2.05E+00	5.36E+00	1.55E+00	1.14E+00	1.42E+00	1.98E+00	2.08E+00	3.40E+00	2.93E+00	2.03E+00	2.93E+00	2.03E+00
600	3.83E+00	1.46E+00	6.90E+01	2.72E+01	3.78E+01	2.44E+01	2.44E+01	5.68E+01	1.41E+00	3.78E+01	1.16E+00	7.48E+01	9.70E+01	1.16E+00	1.39E+00	1.99E+00	2.08E+00	1.37E+00	1.39E+00	1.37E+00
700	2.99E+00	1.19E+00	5.44E+01	2.04E+01	2.72E+01	1.82E+01	2.14E+01	4.20E+01	1.00E+00	2.99E+00	8.78E+01	5.04E+01	6.82E+01	8.52E+01	1.07E+00	1.48E+00	1.52E+00	1.03E+00	1.48E+00	1.03E+00
800	2.28E+00	8.52E+01	4.24E+01	1.36E+01	2.04E+01	1.36E+01	2.10E+01	3.30E+01	7.44E+01	2.14E+00	5.78E+01	4.38E+01	5.66E+01	7.24E+01	1.17E+00	1.28E+00	1.13E+00	8.08E+01	1.28E+00	8.08E+01
900	2.17E+00	4.90E+01	3.98E+01	2.44E+01	2.44E+01	1.46E+01	2.30E+01	3.76E+01	8.88E+01	2.05E+00	3.50E+01	4.18E+01	5.66E+01	6.88E+01	6.72E+01	1.23E+00	1.21E+00	6.68E+01	1.23E+00	6.68E+01
1000	1.98E+00	2.20E+01	3.72E+01	2.04E+01	2.04E+01	1.26E+01	1.28E+01	2.82E+01	8.16E+01	1.75E+00	1.40E+01	3.72E+01	5.28E+01	3.86E+01	2.74E+01	7.44E+01	6.96E+01	3.86E+01	7.44E+01	6.96E+01
1100	1.27E+00	1.46E+01	2.14E+01	1.14E+01	1.14E+01	7.80E+02	5.40E+02	1.92E+01	4.44E+01	9.54E+01	5.20E+02	1.14E+01	2.90E+01	3.86E+01	1.52E+01	3.00E+01	3.24E+01	1.80E+01	3.00E+01	1.80E+01
1200	6.18E+01	8.80E+02	1.08E+01	6.00E+02	6.00E+02	3.80E+02	2.80E+02	7.80E+02	2.08E+01	4.54E+01	5.20E+02	1.14E+01	2.90E+01	3.86E+01	1.52E+01	3.00E+01	3.24E+01	1.80E+01	3.00E+01	1.80E+01
1300	2.68E+01	5.00E+02	5.00E+02	3.20E+02	3.20E+02	2.00E+02	2.00E+02	4.80E+02	1.08E+01	2.14E+01	3.80E+02	5.40E+02	7.80E+02	8.80E+02	5.00E+02	1.08E+01	1.26E+01	7.00E+02	1.08E+01	7.00E+02
1400	2.04E+01	4.80E+02	4.80E+02	2.40E+02	2.40E+02	1.20E+02	1.20E+02	3.00E+02	7.60E+02	1.42E+01	2.20E+02	3.80E+02	5.60E+02	6.80E+02	4.00E+02	9.20E+02	1.10E+01	6.00E+02	9.20E+02	6.00E+02
1500	1.84E+01	4.60E+02	3.60E+02	2.00E+02	2.00E+02	1.00E+02	1.00E+02	2.20E+02	6.20E+02	1.08E+01	2.20E+02	3.00E+02	4.40E+02	4.40E+02	3.40E+02	6.00E+02	6.20E+02	3.20E+02	6.00E+02	3.20E+02
1600	1.46E+01	3.40E+02	2.80E+02	1.80E+02	1.80E+02	8.00E+03	6.00E+03	2.00E+02	4.60E+02	7.20E+02	1.40E+02	2.20E+02	3.40E+02	4.40E+02	2.60E+02	5.40E+02	4.20E+02	2.40E+02	5.40E+02	2.40E+02
1700	8.00E+02	1.40E+02	1.80E+02	1.40E+02	1.40E+02	8.00E+03	6.00E+03	2.00E+02	3.00E+02	5.40E+02	1.20E+02	1.60E+02	2.20E+02	3.80E+02	2.60E+02	4.60E+02	3.40E+02	2.00E+02	4.60E+02	2.00E+02
1800	4.80E+02	1.00E+02	1.20E+02	8.00E+03	8.00E+03	8.00E+03	6.00E+03	1.60E+02	3.00E+02	4.00E+02	1.00E+02	1.00E+02	1.80E+02	2.80E+02	1.60E+02	2.80E+02	2.60E+02	1.80E+02	2.80E+02	1.80E+02
1900	3.60E+02	1.00E+02	6.00E+03	8.00E+03	8.00E+03	8.00E+03	6.00E+03	1.40E+02	2.80E+02	3.00E+02	1.00E+02	8.00E+03	1.20E+02	2.40E+02	1.60E+02	2.40E+02	2.40E+02	1.00E+02	2.40E+02	1.00E+02
2000	3.00E+02	1.00E+02	4.00E+03	6.00E+03	6.00E+03	6.00E+03	6.00E+03	2.00E+03	1.40E+02	2.40E+02	1.00E+02	2.00E+03	1.00E+02	2.00E+03	1.00E+02	2.40E+02	2.00E+03	1.00E+02	2.40E+02	1.00E+02
2100	2.60E+02	1.00E+02	2.00E+03	2.00E+03	2.00E+03	2.00E+03	2.00E+03	1.00E+02	1.40E+02	2.40E+02	1.00E+02	2.00E+03	1.00E+02	2.00E+03	1.00E+02	2.40E+02	2.00E+03	1.00E+02	2.40E+02	1.00E+02
2200	2.40E+02	1.00E+02	0.00E+00	0.00E+00	0.00E+00	2.00E+03	2.00E+03	8.00E+03	1.00E+02	2.00E+02	1.00E+02	0.00E+00	1.00E+02	1.20E+02	1.00E+02	2.40E+02	1.80E+02	1.00E+02	2.40E+02	1.00E+02
2300	2.40E+02	1.00E+02	0.00E+00	0.00E+00	0.00E+00	2.00E+03	2.00E+03	8.00E+03	1.00E+02	2.00E+02	1.00E+02	0.00E+00	1.00E+02	1.20E+02	1.00E+02	2.40E+02	1.80E+02	1.00E+02	2.40E+02	1.00E+02
2400	2.40E+02	1.00E+02	0.00E+00	0.00E+00	0.00E+00	2.00E+03	2.00E+03	8.00E+03	1.00E+02	2.00E+02	1.00E+02	0.00E+00	1.00E+02	1.20E+02	1.00E+02	2.40E+02	1.80E+02	1.00E+02	2.40E+02	1.00E+02
2500	2.00E+02	8.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+02	8.00E+03	0.00E+00	8.00E+03	1.00E+02	6.00E+03	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02
2600	1.80E+02	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+02	6.00E+03	0.00E+00	8.00E+03	1.00E+02	6.00E+03	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02
2700	1.80E+02	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+02	6.00E+03	0.00E+00	8.00E+03	1.00E+02	6.00E+03	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02
2800	1.40E+02	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+02	6.00E+03	0.00E+00	8.00E+03	1.00E+02	6.00E+03	1.00E+02	1.00E+02	1.00E+02	1.00E+02	1.00E+02
2900	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3000	8.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3100	6.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3200	6.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3300	6.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3400	6.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3500	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3600	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3700	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3800	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3900	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4000	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4100	4.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4200	2.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4300	2.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.00E+03	0.00E+00	0.00E+00	0.00E+00	0						

