DRAFT

ADDENDUM

RESPONSE TO U.S. NRC REQUEST FOR ADDITIONAL INFORMATION TEMPORARY THORIUM STORAGE STRUCTURE FINAL DESIGN REPORT DATED OCTOBER 29, 1996

U.S. NRC COMMENT LETTER
DATED DECEMBER 5, 1996

Prepared for

MOLYCORP, INC.
WASHINGTON, PENNSYLVANIA

January 15, 1997

ICF KAISER

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TABLE OF CONTENTS

Attachments

1.0 AIR QUALITY MODELING

Potential concentrations of radionuclides in air as a result of soil movement activities at the York and Washington facilities were estimated using dust emission and air dispersion models. Potential dust emissions were estimated using models from the U.S. Environmental Protection Agency's (EPA) AP-42 (EPA, 1995). Air dispersion modeling was conducted using the Industrial Source Couple 3 Short-Term (ISCST3) model. The following sections briefly describe these models, why they were chosen, and the details of the analyses for this project. ISCST3 was used to estimate air concentrations at various receptor locations.

1.1 AP-42 MODELING

Three activities related to soil disturbance were evaluated for potential dust emissions: (1) Loading of dump trucks at the York facility; (2) dumping of soil at the Washington facility; and (3) grading of soil at the Washington facility. The following sections describe the modeling of these activities.

1.1.1 Truck Loading at York

Potential dust emissions from loading of dump trucks at the York facility were evaluated using the AP-42 (Section 13.2.4.3)emission factor equation for loading of aggregate onto storage piles via batch drop operation (batch drop equation). The following equation was used:

$$E = k\,(0.0032)\,\frac{(U/5)^{1.3}}{(M/2)^{1.4}}$$

where:

E	=	emission factor (lb dust/ton aggregate handled)
k	=	particle size multiplier (dimensionless)
U	=	mean wind speed [miles per hour (mph)]
M	=	material moisture content (%)

A particle size multiplier (k) of 0.11 was used because the issue of interest is radiation doses due to inhalation and this value of k presents particles with aerodynamic diameters of less than 2.5 μm. The input parameters and resulting emissions estimates are presented in Table 1 in Attachment 1. The estimated dust emission factor is 2.4×10^{-5} lb/ton. This was converted to units of lb/hr based on the following assumptions:

14	cubic yards (CY) soil/truck load
110	lb cubic ft (ft^3) of soil
27	ft^3/CY
2,000	lb/ton
1	truck load/hr

This conversions results in an emission factor of 5.1×10^{-4} lb/hr.

1.1.2 Truck Dumping at Washington

Potential dust emissions from dumping soil at the Washington facility were evaluated using the same AP-42 batch drop equation as we used above for loading the truck. The input parameters and resulting emissions estimates are presented in Attachment 5 of the December 19 document in the table entitled "Estimated Air Emissions from Dumping and Spreading of Soil." See Response to Comment 5 in the December 19 document entitled "Response to U.S. NRC Request for Additional Information" (December 19 document) for a discussion of AP-42 emission modeling results for truck dumping at Washington.

1.1.3 Grading at Washington

Potential dust emissions from grading soil at the Washington facility ware evaluated using the AP-42 (Section 11.9.2) emission factor equation for grading operations. this emission factor equation was derived based on observations at Western U.S. surface coal mining operations. The following equation was used:

$$E = 0.031 * 0.040 * S^{2.5}$$

where:

E = emission factor [lb dust/vehicle mile travelled (VMT)]
S = mean vehicle speed (mph)

The estimated emission factor in units of lb/VMT was converted into units of lb/hr based on the following assumptions:

24 feet per pass with grader
16 passes/truck load
1 truck load/hour

The input parameters and resulting emissions estimates are presented in Attachment 5 of the December 19 Document in the table entitled "Estimated Air Emissions from Dumping and Spreading of Soil." See Response to Comment 5 in the December 19 document for a discussion of AP-42 emission modelling results for truck dumping at Washington.

1.2 ISCST3 MODELING DESCRIPTION

The ISC3 model is a steady-state Gaussian plume model which can be used to asses pollutant concentrations from a wide variety of sources associated with an industrial source complex. This model can account for the following: settling and dry deposition of particles; downwash; area, line and volume sources; plume rise as a function of downwind distance; separation of point sources; and limed terrain adjustment. It operates in both long-term (ISCLT3) and short-term (ISCST3) modes (the latter was used here).

ISCST3 is appropriate for the following applications:

- industrial source complexes;

- rural or urban areas;
- flat or rolling terrain;
- transport distances less than 50 kilometers;
- 1-hour to annual averaging times; and
- continuous toxic air emissions.

ISCST3 was chosen because it allows for sources that vary with time. Concentrations were calculated for one-hour averaging times. The elevation of the sources and receptors was accounted for, as was their height above ground.

1.2.1 ISCST3 Modelling for York

Meteorological data from two sources were used. Surface data from the Capital City Airport in Harrisburg were combined with upper air data from the Greater Pittsburgh International Airport for input into the model. These stations were chosen as they were the closest representative stations for which data were available. (Atlantic City is a closer upper-air station, but is in a maritime climate. Pittsburgh is more representative of York.)

It was assumed that emission rates, though developed for time periods less than an hour (see Table 1 for characteristics of activities), occur for an entire hour, as ISCST3 does not allow for time increments of less than an hour. It was further assumed that the time required to load a truck was less than one hour (30 minutes), and no more than one truck was loaded per hour.

There were seven sectors at the York facility that contained soil concentrations greater than 10 pCi/g. Five of the sectors were roughly circular and approximately fifty feet in diameter. Two of the sectors were larger and were subdivided. One sector near the center of the northern edge was broken into two sectors, and the large sector that dominates the eastern half of the facility was broken into nine smaller sectors. These sectors are depicted in Figure 1 in Attachment 1.

Emissions from truck loading in these sectors were modeled by using area sources, one in the center of each of the 16 sectors, that represented the bed of the truck carrying the soil. That is, each sector was modeled with an area source of two meters by three meters, with a release height of two meters, placed at the center of the sector.

Receptors were placed around the work areas (sectors) and on the fence-line. Specifically, eight receptors were modeled within each work area. Two receptors (one at a 2 meter flagpole height and one at a 3 meter flagpole height) were modeled at four locations placed 10 meters northeast, northwest, southwest, and southeast of the source. Four of the eight receptors were modelled at two meter flagpole heights to represent potential workers standing on the ground surface. The remaining four receptors in each work area were modeled at three meter heights to represent potential workers who would be operating equipment (i.e., trucks or backhoes). There were 36 fence-line receptors, placed at ten degree intervals around the facility. Attachment 2 contains the ISCST3 input parameters and a summary table of the air modelling output and Attachment 3 disks containing the model input and output.

Table 1 presents the results of the ISCST3 modeling run in terms of the modeled dilution factors, [i.e., the estimated air concentration (in units of $\mu g/m^3$) per unit emission rate (in units of lb/hr)]. The dilution factors listed in Table 1 represent the average and maximum estimated at the worker and fenceline receptors locations discussed above. The input parameters and resulting output for all receptor locations are presented in Attachments 2 and 3. These dilution factors are then multiplied by the emissions factors discussed above for truck loading at the York facility (5.1×10^{-4} lb/hr) to yield estimated average and maximum dust concentrations (in units of $\mu g/m^3$). The resulting dust concentrations are then multiplied by the average concentration of radionuclides in soil at the York facility [27 picoCuriesi/gram (pCi/g)], and converted to units of μCi/milliliter (μCi/ml). Table 1 presented the resulting estimated radionuclide concentrations in air in the work area and at the fenceline.

1.2.2 ISCST3 Modelling for Washington

See Response to Comment 5 in the December 19 document for a discussion of ISCST3 modelling for Washington. Attachment 2 contains hard copies of the ISCST3 input and output and Attachment 3 disks with the model input and output.

Section 2

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2.0 COMPREHENSIVE RADIOLOGICAL DOSE ASSESSMENT

The estimated on-site and fenceline air concentrations of radionuclides for activities at the York facility (Table 1) were evaluated to determine if monitoring of potential emissions is required. A dose assessment was performed in accordance with 10 CFR Part 20. In addition, the dose calculations for York were integrated with the dose calculations presented previously (ICF Kaiser, 1996) for the Washington facility, as one of the potential receptors (the truck driver) is potentially exposed at both locations. Therefore, this addendum represents a compilation of the dose assessment calculations for the entire project.

A governing assumption in this dose assessment is that thorium-232 in soil at York is in equilibrium with its daughters.

2.1 EXPOSURE ASSESSMENT

Potential exposure to radionuclides in soil being transferred from York to Washington could occur at three steps in the project: (1) during excavation and loading of soil into trucks at York; (2) during transport of soil from York to Washington; and (3) during dumping and grading of soil at Washington. Six potential receptors were evaluated who could be exposed to radionuclides during these activities: (1) workers involved in excavation and loading of trucks at York; (2) truck drivers transporting soil from York to Washington; (3) workers involved in grading soil at Washington; (4) hypothetical fenceline receptors at York; (5) hypothetical fenceline receptors at Washington; and (6) the nearest potential residential receptor at Washington. Potential exposure pathways to radionuclides during these activities include direct radiation, inhalation of dusts and incidental ingestion of soil. The potential exposure pathways for each receptor are listed in Table 2 in Attachment 1.

Only the excavator and grader receptors have the potential to directly contact soil. Therefore, only these receptors were evaluated for potential ingestion exposure.

The potential doses associated with the above exposure pathways are a function of the frequencies and durations of exposure, which in turn, are a function of the specific activities associated with this project. Table 3 summarizes the details of the excavation, transport and grading aspects of this project that affect the degree of potential exposure to radionuclides.

The potential dose is also a function of the concentration of radionuclides present in the exposure media -- soil and air. The average concentration of thorium in soil being transferred from York to Washington is 27 pCi/g. As indicated in Table 1, the estimated concentration of radionuclides in air at the York facility is 2.2×10^{-16} microCuries per milliliter (μCi/ml). The estimated maximum fenceline concentration is 2.0×10^{-16} μCi/ml. The corresponding estimated maximum concentrations at Washington are 9.3×10^{-15} μCi/ml on-site and 7.0×10^{-15} μCi/ml at the fenceline (see the December 12 document). At both York and Washington, dose calculations presented here are based on the maximum estimated air concentration from Table 1 of this addendum and the table entitled "Estimated Air Emissions from Dumping and Spreading Soils" in Attachment 5 of the December 19 document. In addition, it should be noted that there are no residences at the fenceline at either York or Washington. Therefore, these concentrations represent conservative estimates of potential exposures to residents. The maximum concentration calculated for the nearest resident to the Washington facility is 6.2×10^{-16} μCi/ml (see the December 19 document).

2.2 DOSE CALCULATIONS

Separate dose calculations were performed for the following scenarios: (1) direct radiation to occupational receptors; (2) inhalation of dusts by occupational receptors; (3) incidental ingestion of soil by occupational receptors; (4) inhalation of dusts by fenceline receptors; (5) direct radiation to fenceline receptors; (6) inhalation of dusts by nearest resident receptors (at Washington); and (7) direct radiation to nearest resident receptors (at Washington). The results of these dose calculations are presented in Tables 4 to 11 in Attachment 1 and summarized below.

2.2.1 Direct Radiation to Occupational Receptors

The potential direct radiation doses to occupational receptors were evaluated by comparing the estimated direct dose to the occupational limit of 500 mrem before monitoring is required. Doses were estimated using Adjusted External Dose Equivalents (EDE) for the radionuclides present in soil. Table 4 presents the EDEs (in units of mrem/yr per pCi/g) for the radionuclides of interest from the Federal Guidance Report No. 12, External Exposure to Radionuclides in Air, Water and Soil. These were adjusted to take into account the concentration of thorium in York soil (27 pCi/g) and the abundance of each radionuclide. They were further adjusted to units of mrem/hr since all of the exposure pathways evaluated in this assessment are of relatively short duration (less than 1 hour). The resulting cumulative adjusted EDE for exposure to soil from York is 0.0498 mrem/hr.

The above adjusted EDE was used to calculate potential direct gamma doses associated with exposure to soil during excavation and loading at York and dumping and grading at Washington. To assess the direct dose associated with truck transport from York to Washington, the EDE provided by Foster Wheeler Environmental Corporation (see Attachment 6 of the December 19 document) of 0.0077 mrem/hr was used.

Table 5 presents the results of the direct dose calculations. The EDEs described above (in units of mrem/hr) were multiplied by the estimated total duration of exposure (in hours) for each receptor. The following sections describe the calculations for each receptor.

Excavator. The excavator receptor is assumed to be exposed to direct radiation while excavating soil and loading the dump trucks. Each load is estimated to take 30 min (0.5 hour). An individual is estimated to load 5 trucks per day, resulting in 2.5 hours of exposure per day. An estimated 357 truck loads will be required to transfer all of the soil from York to Washington. At a rate of 5 loads/day, this will take 72 days. Thus, the cumulative duration of exposure for the excavator is 180 (72 × 2.5) hours. At an adjusted EDE 0.0498 mrem/hr, the total direct dose to the excavator is estimated to be 8.96 mrem.

Truck Driver. The truck driver receives a potential direct dose at York, on the road, and at Washington. The direct dose at York was estimated based on a frequency of exposure of 1 per day and duration of exposure of 30 minutes (0.5 hour) per load. Based on 72 days of exposure, the total duration of exposure is 36 (72 × 0.5) hours. The resulting direct dose (based on an adjusted EDE of 0.0498 mrem/hr) is 1.79 mrem. The direct dose while transporting the soil from York to Washington was estimated based on a frequency of exposure of 1 load/day, a duration of exposure of 6 hr/load, and a total of 72 loads, resulting in a cumulative duration of 432 hours. Using an EDE of 0.0077 mrem/hr, the resulting direct dose on the road is 3.33 mrem. The direct dose while dumping the soil at Washington was estimated using the same approach as at York except the duration of each event is 5 minutes (0.0833 hr). The resulting cumulative exposure duration is 6

hours, resulting in a dose (at 0.0498 mrem/hr) of 0.30 mrem. Summing the doses from the three exposure pathways, the cumulative direct radiation dose is estimated to be 5.42 mrem.

Grader Driver. Using the same approach as was used for the excavator, except for the duration of exposure per load (12 minutes versus 30 minutes), the total exposure duration is 72 hours. At an adjusted EDE of 0.0498 mrem/hr, the resulting direct dose is estimated to be 3.59 mrem.

2.2.2 Inhalation by Occupational Receptors

Potential inhalation doses to occupational receptors were evaluated by comparing the estimated radionuclide concentrations in air at York and Washington to Derived Air Concentrations (DACs) from Table 1, Column 3 of 10 CFR 20 Appendix B. Table 6 in Attachment 1 presents the DAC values for the radionuclides of interest as well as the estimated on-site concentration at both York and Washington. An Effective DAC was derived for each location by dividing the estimated on-site total radionuclide concentration by the DAC for each radionuclide and then summing the ratios. The Effective DAC values for York and Washington are 0.000496 and 0.021, respectively.

Potential inhalation doses were then evaluated by multiplying the Effective DAC values by the estimated total duration (in hours) of exposure for each occupational receptor potentially exposed via inhalation. The total duration of exposure for each receptor is the same as was calculated above for direct doses. These calculations are presented in Table 7 in Attachment 1. The resulting doses are expressed in DAC-hr. The cumulative inhalation doses for the three receptors are 0.09 DAC-hr for the excavator, 0.14 DAC-hr for the truck driver, and 1.51 DAC-hr for the grader.

2.2.3 Ingestion by Occupational Receptors

Potential soil ingestion doses were evaluated by comparing an estimate of the amount of radioactivity ingested from York soil to the Allowable Limit on Intake (ALI) for ingestion from Table 1, Column 1 of 10 CFR 20 Appendix B. These ALIs for the radionuclides of interest are presented in Table 8.

The calculation of the amount of soil ingested by the occupational receptors is presented in Table 9 in Attachment 1. Exposure duration was estimated to be 72 days as described previously for direct dose. The estimated soil ingestion rate for these workers is 200 mg/day. However, for each worker, only a fraction of the total day is spent in activities associated with soil from York. For the excavation worker, this fraction is estimated to be 0.3125 based on an estimated total duration of 2.5 hr/day (calculated as described above for direct dose) relative to an 8-hour work day. The corresponding fraction for the grader is 0.125 based on a total exposure duration of 1 hr/day. The resulting soil ingestion rates are 62.5 mg/day for the excavator and 25 mg/day for the grader. The total intake of soil for each worker is, therefore, 4.5 grams (g) and 1.8 g, respectively. At a concentration of 27 pCi/g, the total radionuclide intake is 121.5 pCi for the excavator and 48.6 pCi for the grader. Table 8 presents a comparison of the ingestion ALIs for the radionuclides of interest to these estimated intakes. As indicated estimated intake is a small fraction of the ALI.

2.2.4 Inhalation by Hypothetical Fenceline Receptors

Potential inhalation doses to hypothetical fenceline receptors were evaluated by comparing estimated fenceline concentrations to effluent boundary limits from Table 2, Column 1 of 10 CFR 20 Appendix B. The effluent concentration limits for the radionuclides of interest are presented in Table 8. These effluent limits were then compared to the estimated fenceline air concentrations of total radionuclides at York and Washington, which are also presented in Table 8. The ratio of the estimated

concentration at each location to the effluent limit was calculated. However, because the limit is for an annual exposure and these activities are expected to take place for a relatively short period of time, the comparison was adjusted to account for the less than annual exposure duration (2.5 hr/day × 72 days = 180 hours for York, and 1 hr/day × 72 days = 72 hours for Washington). The resulting ratios were summed.

At York, the estimated fenceline concentration is less than 1 percent of the effluent concentrations (0.0017 times). At Washington, the estimated fenceline concentration of total radionuclides is 1.64 percent of the effluent concentration limits.

2.2.5 Direct Radiation to Hypothetical Fenceline Receptors

Molycorp performed Microshield calculations on a slab of soil to determine the dose rate at the fenceline at Washington (see Table 7 of Attachment C of the February 8, 1996 letter from B.K. Dankmyer, Molycorp, to L.S.Person, NRC). Using a distance of approximately 80 feet to the nearest fence, the annual dose rate was a small fraction of 50 mrem. Note that this assessment was conducted to a point on Molycorp property and thus not accessible to the public. The dose rate at the nearest unrestricted area, as required in 10 CFR 20.1301, would be even lower.

2.2.6 Inhalation by Nearest Resident Receptors

Potential inhalation doses to the nearest resident receptor to the Washington facility were evaluated using the same approach as was used for the fenceline receptors. The results of these calculations are presented in Table 10. As indicated, the estimated air concentration is well below (0.00145 times) the effluent concentration limits.

Potential inhalation doses to the nearest resident receptor at the York facility have not been performed. Based on the estimated fenceline concentrations at York, and the observation that the nearest off-site concentration at Washington was an order of magnitude lower than the highest fenceline concentration at Washington, a similar relationship was expected at York. Thus, off-site modeling is not necessary.

2.2.7 Direct Radiation to Nearest Resident Receptors

Molycorp previously performed Microshield calculations on a slab of soil at Washington to estimate doses at the fenceline and at off-site locations (see Table 7 of Attachment C of the February 8, 1996 letter from B.K. Dankmyer to L.S. Person, NRC). Based on the results of that assessment, the annual dose to the nearest resident, located approximately 680 feet from the proposed Temporary Structure, would be a small fraction of 50 mrem.

2.2.8 Minimizing Exposures

Attachment 4 provides Molycorp's radiation protection policy. Prior to implementing the work, a project-specific Health and Safety Plan will be developed. As discussed in response to Comment 7 in the December 19 document, Molycorp anticipates the use of dust control measures to further reduce the potential for airborne radionuclides. During field activities, a PDM-3 Miniram (or equivalent) will be used to monitor dust conditions. Monitoring of dust will also be conducted at the fixed monitoring locations illustrated in Figure 2 in Attachment 1. Engineering controls, such as misting will be implemented as needed to maintain airborne dust concentrations within acceptable levels. In addition, access to the work area will be strictly controlled.

Section 3

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3.0 CONCLUSIONS

A compilation of the dose calculations and a comparison to applicable limits is presented in Table 11. The comparison indicates that estimated doses to the worker and fenceline receptors are well within acceptable limits. The calculated dose for the nearest residential receptor at Washington is also within acceptable limits. As expected, the dose to the residential receptor is less than at the fenceline.

ATTACHMENT 1

RADIOLOGICAL ASSESSMENTS
TABLES 1 THROUGH 11
AND FIGURES 1 AND 2

TABLE 1
ESTIMATED AIR EMISSIONS FROM SOIL LOADING AT YORK

Model Inputs

Soil

M	14	material moisture content (%)
s	20	material silt content (%)
d	110	density of material (lb/ft^3)
CS	27	radionuclide concentration of soil (pCi/g)
Y	14	soil volume (yd^3)

Meteorology

U	5.2	Jun/Jul/Aug mean wind speed (mph)

Estimated emission rates

Truck loading

(from AP-42, 13.2.4.3, batch drop operations)

k	0.11	particle size multiplier (dimensionless)
E	2.4E-05	E=k*(0.0032)*(U/5)$^{1.3}$/(M/2)$^{1.4}$ (lb/ton)
er	5.1E-04	average hourly emission rate (lb/hr)
		(assume emissions are spread over hour)

Model Results

Truck loading

from ISCST3

df		*Modeled dilution factors ($\mu g/m^3$)/(lb/hr)*
	12,913.37	Average worker (2 m flagpole)
	16,461.81	Max worker (2 m flagpole)
	3,942.96	Average worker (3 m flagpole)
	4,993.59	Max worker (3 m flagpole)
	14,820.74	Max fenceline (2 m flagpole)
C		*Modeled air concentration ($\mu g/m^3$) * C=df*er*
	6.5	Average worker (2 m flagpole)
	8.3	Max worker (2 m flagpole)
	2.0	Average worker (3 m flagpole)
	2.5	Max worker (3 m flagpole)
	7.5	Max fenceline (2 m flagpole)
CR		*Radionuclide air concentration (μCi/ml) CR=C*CS/(1e6*1e6*1e6)*
	1.8E-16	Average worker (2 m flagpole)
	2.2E-16	Max worker (2 m flagpole)
	5.4E-17	Average worker (3 m flagpole)
	6.8E-17	Max worker (3 m flagpole)
	2.0E-16	Max fenceline (2 m flagpole)

TOTAL RADIONUCLIDE AIR CONCENTRATION (μCi/ml)	
1.8E-16	Average worker (2 m flagpole)
2.2E-16	Max worker (2 m flagpole)
5.4E-17	Average worker (3 m flagpole)
6.8E-17	Max worker (3 m flagpole)
2.0E-16	Max fenceline (2 m flagpole)

TABLE 2

POTENTIAL EXPOSURE PATHWAYSFOR EACH RECEPTOR

Location	Receptor	Potential Exposure Pathways
York	Excavator	Direct Radiation Inhalation of Dusts Incidental Ingestion of Soil
	Truck Driver	Direct Radiation Inhalation of Dusts
	Fenceline Receptor	Direct Radiation Inhalation of Dusts
On Road	Truck Driver	Direct Radiation
Washington	Grader	Direct Radiation Inhalation of Dusts Incidental Ingestion of Soil
	Truck Driver	Direct Radiation Inhalation of Dusts
	Fenceline Receptor	Direct Radiation Inhalation of Dusts
	Nearest Residential Receptor	Direct Radiation Inhalation of Du

TABLE 3

SUMMARY OF PARAMETERS USED TO ESTIMATE POTENTIAL EXPOSURE

Parameter	Value
Volume of soil to be transferred from York to Washington	5,000 CY
Volume of soil per truck	14 CY
Number of truck loads - total	357 loads
Number of truck loads per day Frequency of excavation and truck loading at York Frequency of truck dumping and grading at Washington	5 loads/day
Number of truck drivers	5 drivers
Frequency of individual truck driver	1 load/day
Duration of excavation and truck loading at York	30 min/load
Duration of dumping at Washington	5 min/load
Duration of grading at Washington	12 min/load
Duration of truck transport from York to Washington	6 hours/load

CY = cubic yards

TABLE 4
ADJUSTED EXTERNAL DOSE EQUIVALENTS

Radionuclide	Abundance (# occurances per decay)	Effective Dose Equivalent		
		(mrem/yr) per (pCi/g)	(mrem/yr)	(mrem/hr)
Th−232	1	5.21E−04	0.00E+00	0.00E+00
Ra−228	1	0.00E+00	0.00E+00	0.00E+00
Ac−228	1	5.98E+00	0.00E+00	0.00E+00
Th−228	1	7.94E−03	0.00E+00	0.00E+00
Ra−224	1	5.12E−03	0.00E+00	0.00E+00
Rn−220	1	2.30E−03	0.00E+00	0.00E+00
Po−216	1	1.04E−04	0.00E+00	0.00E+00
Pb−212	1	7.04E−01	0.00E+00	0.00E+00
At−216	1	4.52E−03	0.00E+00	0.00E+00
Bi−212	1	1.17E+00	0.00E+00	0.00E+00
Po−212	0.64	0.00E+00	0.00E+00	0.00E+00
Tl−208	0.36	2.30E+01	0.00E+00	0.00E+00
Total				0.00E+00

Source: Federal Guidance Report No. 12, External Exposure to Radionuclides in Air, Water, and Soil
Soil Concentration: 27 pCi/g

TABLE 5
DIRECT RADIATION DOSE CALCULATIONS – OCCUPATIONAL RECEPTORS

Activity	Receptor	Concentration	Exposure					Adjusted EDE	Dose
			Frequency	Duration					
			(events/day)	(hr/event)	(hr/day)	(days)	(hr)	(mrem/hr)	(mrem)
York, PA									
Excavation &	Excavator	27 pCi/g	5	0.5	2.5	72	180	0	0.00
Truck Loading	Truck Driver	27 pCi/g	1	0.5	0.5	72	36	0	0.00
On Road									
Transport	Truck Driver	27 pCi/g	1	6	6	72	432	0.0077	3.33
Washington, PA									
Dumping &	Truck Driver	27 pCi/g	1	0.0833333	0.0833333	72	6	0	0.00
Grading	Grader	27 pCi/g	5	0.2	1	72	72	0	0.00
Cumulative Dose	Excavator								0.00
	Truckdriver								3.33
	Grader								0.00

TABLE 6
OCCUPATIONAL LIMITS:
DAC VALUES AND EFFECTIVE DAC
FOR Th-232 AND PROGENY

Radionuclide	DAC	Effective DAC	
		York	Washington
		RN Air Concentration (μCi/ml) =	
	(μCi/ml)	2.20E-16	9.30E-15
Th-232	5.00E-13	4.40E-04	1.86E-02
Ra-228	5.00E-10	4.40E-07	1.86E-05
Ac-228	4.00E-09	5.50E-08	2.33E-06
Th-228	4.00E-12	5.50E-05	2.33E-03
Ra-224	7.00E-10	3.14E-07	1.33E-05
Rn-220	9.00E-09	2.44E-08	1.03E-06
Total		4.96E-04	2.10E-02

DAC = Derived Air Concentration
Source: 10 CFR 20, Appendix B, Table 1, Column 3
RN = radionuclide
Effective DAC = RN Air Concentration / DAC

TABLE 7
INHALATION DOSE CALCULATIONS – OCCUPATIONAL RECEPTORS

Activity	Receptor	Concentration	Exposure					Dose	
			Frequency	Duration				Effective	DAC–hr
			(events/day)	(hr/event)	(hr/day)	(days)	(hr)	DAC	
York, PA									
Excavation &	Excavator	2.2E–16 μCi/ml	5	0.5	2.5	72	180	0.0005	0.09
Truck Loading	Truck Driver	2.2E–16 μCi/ml	1	0.5	0.5	72	36	0.0005	0.02
On Road									
Transport	Truck Driver	N/A	1	6	6	72	432	N/A	N/A
Washington, PA									
Dumping &	Truck Driver	9.3E–15 μCi/ml	1	0.0833333	0.0833333	72	6	0.021	0.13
Grading	Grader	9.3E–15 μCi/ml	5	0.2	1	72	72	0.021	1.51
Cumulative Dose	Excavator								0.09
	Truckdriver								0.14
	Grader								1.51

N/A = Not Applicable

TABLE 8
ORAL INGESTION ALIs

Radionuclide	Oral Ingestion ALI		Ratio of Intake to ALI	
	(μCi)	(pCi)	Excavator	Grader
Th-232	7.00E-01	7.00E+05	1.74E-04	6.94E-05
Ra-228	2.00E+00	2.00E+06	6.08E-05	2.43E-05
Ac-228	2.00E+03	2.00E+09	6.08E-08	2.43E-08
Th-228	6.00E+00	6.00E+06	2.03E-05	8.10E-06
Ra-224	8.00E+00	8.00E+06	1.52E-05	6.08E-06
Rn-220	NA	NA	NA	NA
Total			2.70E-04	1.08E-04

Source: 10 CFR 20, Appendix B, Table 1, Column 1
ALI = Allowable Limit on Intake
NA = not available

Intake:

Excavator	121.5 pCi
Grader	48.6 pCi

TABLE 9
INCIDENTAL INGESTION DOSE CALCULATIONS – OCCUPATIONAL RECEPTORS

Activity	Receptor	Concentration	Exposure				Soil Ingestion			Dose
			Frequency	Duration			Rate	Fraction	Total	
			(events/day)	(hr/event)	(hr/day)	(days)	(mg/day)	(– –)	(g)	(pCi)
York, PA										
Excavation &	Excavator	27 pCi/g	5	0.5	2.5	72	200	0.3125	4.5	121.5
Truck Loading	Truck Driver	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
On Road										
Transport	Truck Driver	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Washington, PA										
Dumping	Truck Driver	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grading	Grader	27 pCi/g	5	1	1	72	200	0.125	1.8	48.6
Cumulative Dose	Excavator									121.5
	Truckdriver									N/A
	Grader									48.6

N/A = Not Applicable

TABLE 10
BOUNDARY LIMITS:
EFFLUENT CRITERIA, FENCE LINE AND
ANNUAL AVERAGE CONCENTRATIONS

Radionuclide	Effluent Concentration	Annual Average Concentration	
		York	Washington
		RN Air Concentration (μCi/ml) =	
	(μCi/ml)	2.00E−16	7.00E−15
Th−232	4.00E−15	1.03E−03	1.44E−02
Ra−228	2.00E−12	2.05E−06	2.88E−05
Ac−228	2.00E−11	2.05E−07	2.88E−06
Th−228	3.00E−14	1.37E−04	1.92E−03
Ra−224	2.00E−12	2.05E−06	2.88E−05
Rn−220	3.00E−11	1.37E−07	1.92E−06
Total		1.17E−03	1.64E−02

Source: 10 CFR 20, Appendix B, Table 2, Column 1
RN = radionuclide
Annual Average Concentration =
(Total RN Concentration / Effluent Concentration) * (Hours Operation / 8760 hr/yr)

Hours of Operation:

York	180 hr
Washington	72 hr

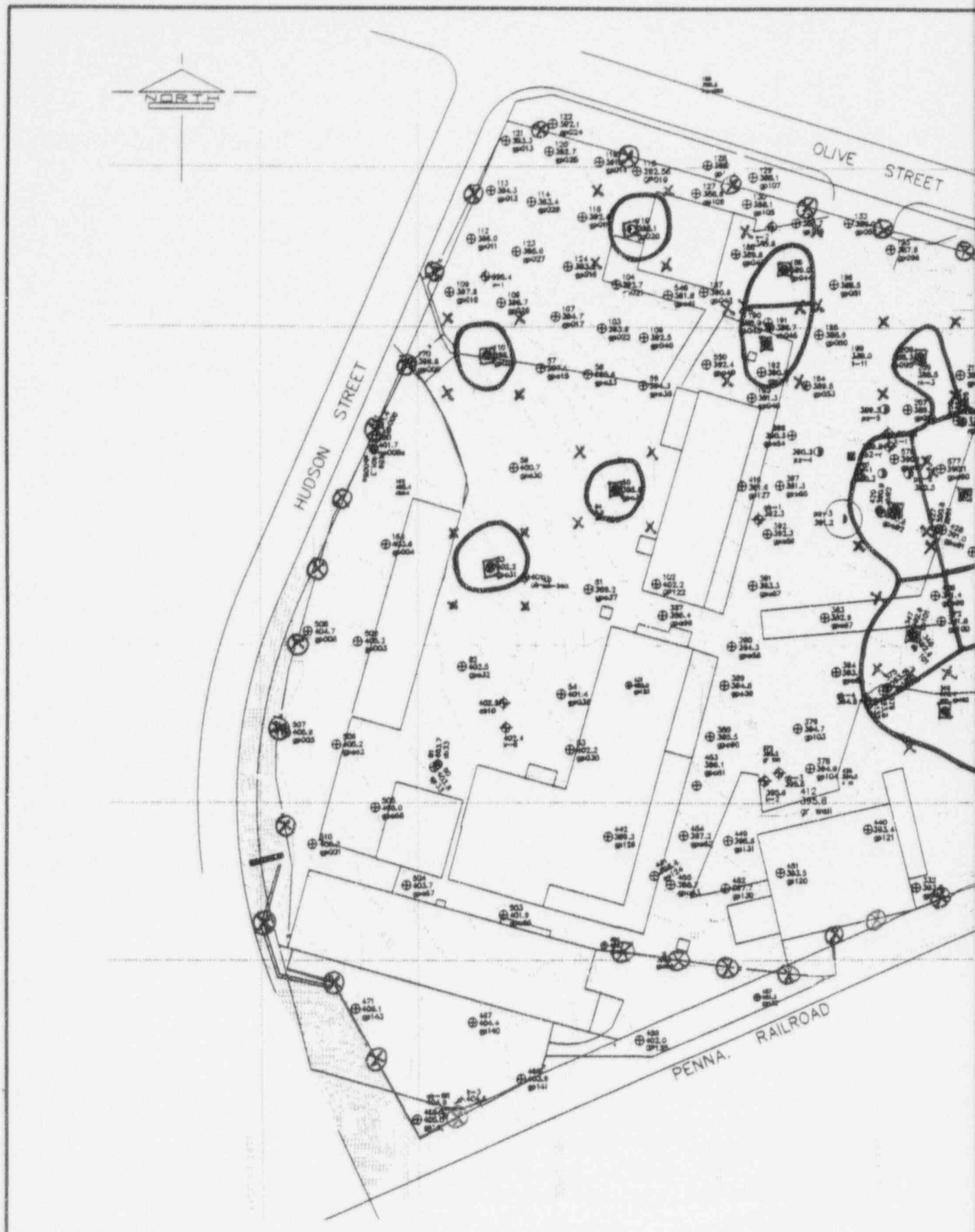
TABLE 11

SUMMARY DOSE ASSESSMENT

Receptor	Exposure	Dose Estimate	Dose Limit or Fraction of Limit
Excavator	Direct Radiation Inhalation of Dusts Incidental Ingestion of Soil	8.96 mrem 0.09 DAC-hr 121.5 pCi	500 mrem 12 DAC-hr 0.00027 × ALI
Truck Driver	Direct Radiation Inhalation of Dusts	5.42 mrem 0.14 DAC-hr	500 mrem 12 DAC-hr
Grader	Direct Radiation Inhalation of Dusts Incidental Ingestion of Soil	3.59 mrem 1.51 DAC-hr 48.6 pCi	500 mrem 12 DAC-hr 0.000108 × ALI
Fenceline Receptor			
York	Direct Radiation Inhalation of Dusts	< < 50 mrem/yr --	50 mrem/yr 0.00117 × Effluent Limit
Washington	Direct Radiation Inhalation of Dusts	< < 50 mrem/yr --	50 mrem/yr 0.0164 × Effluent Limit
Nearest Resident Receptor			
York	Not Evaluated	--	--
Washington	Direct Radiation Inhalation of dusts	< < 50 mrem/yr	50 mrem/yr 0.00145 × Effluent Limit

ALI = Allowable Limit on Intake

< < 50 mrem/yr = The dose is a very small fraction of the acceptable limit (i.e., the dose is insignificant).



REFERENCE:

BASE MAP MODIFIED FROM
FOSTER WHEELER ENVIRONMENTAL
SERVICES, DRAWING 940.

BOUNDARY
OF THORIUM-232 +
RADIUM-226 CONCENTRATIONS
IN SOILS GREATER THAN
10 pCi/g

LEGEND:

- MONITORING WELL
- PIEZOMETER
- GAMMA POINT
- PUMPING WELL
- SOIL BORING
- Source
- Worker receptor
- Fence-line receptor

SCALE IN FEET

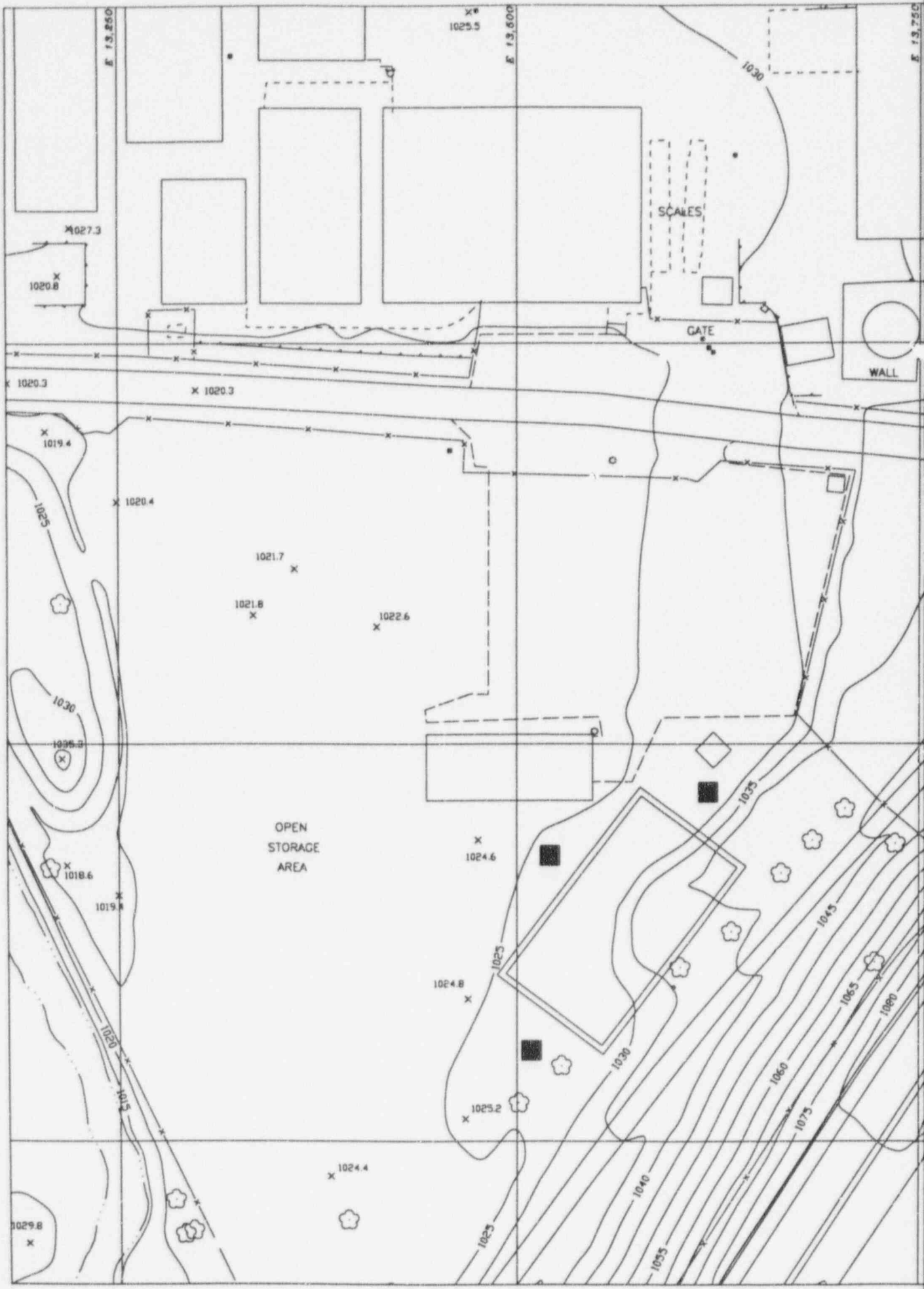
FIGURE 1

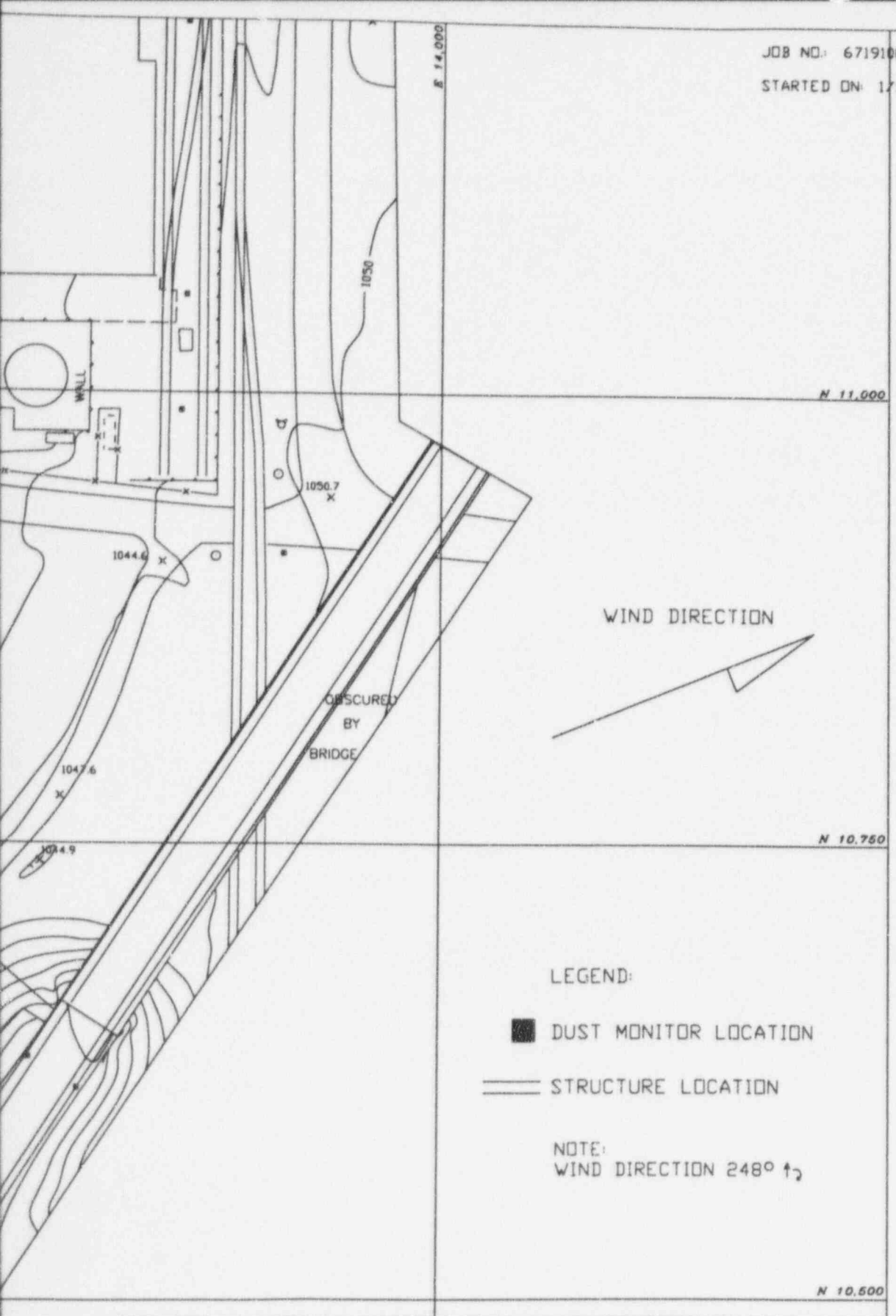
SOURCE AND RECEPTOR LOCATION
AT YORK, PA. FACILITY

ICF KAISER ENGINEERS
PITTSBURGH, PA

DATE: 1/14/97 | DR.: B. SNYDER
SCALE: N.T.S. | FILE NAME: 17103B24

9701230101-01


E 13,850
E 13,600
E 13,750
1025.5
1030
SCALES
1027.3
1020.8
GATE
WALL
1020.3
1020.3
1019.4
1020.4
1025
1021.7
1021.8
1022.6
1030
1035.8
OPEN
STORAGE
AREA
1024.6
1018.6
1019.8
1035
1045
1025
1024.8
1065
1080
1020
1015
1030
1060
1025.2
1075
1024.4
1040
1029.8
1025
1095



JOB NO.: 6719100200 PLOT SCALE: 1=80

STARTED ON: 1/15/97 REVISED: 0/00/00

N

WIND DIRECTION

LEGEND:

■ DUST MONITOR LOCATION

STRUCTURE LOCATION

NOTE:
WIND DIRECTION 248°

FIGURE 2

MOLYCORP, INC. WASHINGTON, PA	DUST MONITOR LOCATIONS
ICF KAISER ENGINEERS PITTSBURGH, PA	DATE: 1/15/97 DR.: M. WILLIAMS SCALE: 1"=80' DWG. NO. 00153001

9701230101-02

ATTACHMENT 2

ISCST3 INPUT AND OUTPUT

WASHINGTON ISCST3 INPUT AND OUTPUT

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 1 Source(s); 1 Source Group(s); and 26 Receptor(s)

**The Model Assumes A Pollutant Type of: PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

m for Missing Hours
b for Both Calm and Miss. Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: DUMP84.DTA ; **Output Print File: DUMP84.LST

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
DUMP	0	0.94061E-02	0.0	0.0	315.5	0.00	3.66	3.66	0.00	0.00	SEASHR

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DUMP ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = DUMP ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	315.5,	2.0);	(-24.0,	-10.0,	315.5,	2.0);
(-14.0,	2.0,	315.5,	2.0);	(-5.0,	14.0,	315.5,	2.0);
(4.0,	26.0,	315.5,	2.0);	(-14.0,	-18.0,	315.5,	2.0);
(5.0,	-6.0,	315.5,	2.0);	(5.0,	6.0,	315.5,	2.0);
(23.0,	18.0,	315.5,	2.0);	(-4.0,	-26.0,	315.5,	2.0);
(6.0,	-13.0,	315.5,	2.0);	(15.0,	-1.0,	315.5,	2.0);
(24.0,	10.0,	315.5,	2.0);	(122.0,	170.0,	317.9,	2.0);
(13.0,	-65.0,	324.6,	2.0);	(36.0,	-29.0,	326.1,	2.0);
(64.0,	6.0,	327.7,	2.0);	(33.0,	39.0,	313.9,	2.0);
(44.0,	86.0,	315.2,	2.0);	(5.0,	85.0,	312.4,	2.0);
(-30.0,	86.0,	311.8,	2.0);	(-78.0,	-61.0,	311.2,	2.0);
(-25.0,	-40.0,	312.7,	2.0);	(-96.0,	-42.0,	308.5,	2.0);
(-96.0,	34.0,	311.2,	2.0);	(-96.0,	110.0,	310.9,	2.0);

**MODELOPTs: CONC   RURAL ELEV   FLGPOL DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: LPITT84.BIN FORMAT: UNFORM
SURFACE STATION NO.: 94823 UPPER AIR STATION NO.: 94823
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 1984 YEAR: 1984

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
84	1	1	1	51.0	3.09	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	2	58.0	1.54	267.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	3	54.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	4	23.0	1.54	268.1	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	5	343.0	1.54	267.0	6	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	6	342.0	2.06	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	7	15.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	8	353.0	2.06	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	9	347.0	2.57	268.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	10	351.0	2.57	269.8	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	11	14.0	2.57	270.9	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	12	346.0	3.09	271.5	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	13	343.0	2.06	272.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	14	339.0	3.60	273.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	15	42.0	3.09	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	16	14.0	3.60	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	17	351.0	2.57	273.7	5	618.6	619.6	0.0000	0.0	0.0000	0	0.00
84	1	1	18	327.0	2.57	272.0	5	596.4	651.4	0.0000	0.0	0.0000	0	0.00
84	1	1	19	324.0	2.57	272.0	5	574.3	683.1	0.0000	0.0	0.0000	0	0.00
84	1	1	20	317.0	3.60	273.1	4	552.1	552.1	0.0000	0.0	0.0000	0	0.00
84	1	1	21	340.0	2.57	272.6	5	529.9	746.7	0.0000	0.0	0.0000	0	0.00
84	1	1	22	342.0	2.57	272.0	5	507.7	778.5	0.0000	0.0	0.0000	0	0.00
84	1	1	23	330.0	2.57	272.0	5	485.6	810.2	0.0000	0.0	0.0000	0	0.00
84	1	1	24	20.0	2.06	271.5	5	463.4	842.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DUMP ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	74.06870	(84070813)	-24.00	-10.00	2407.07788	(84080413)
-14.00	2.00	2042.54333	(84073016)	-5.00	14.00	2331.48438	(84082609)
4.00	26.00	2269.79736	(84080108)	-14.00	-18.00	1796.57446	(84081112)
5.00	-6.00	2017.30518	(84072514)	5.00	6.00	685.81097	(84071412)
23.00	18.00	1915.23694	(84071210)	-4.00	-26.00	1016.50311	(84072810)
6.00	-13.00	1598.25000	(84072110)	15.00	-1.00	2245.09058	(84061217)
24.00	10.00	1547.66858	(84080117)	122.00	170.00	134.27243	(84080211)
13.00	-65.00	1073.63501	(84081308)	36.00	-29.00	738.87115	(84081812)
64.00	6.00	535.00934	(84071208)	33.00	79.00	1312.96899	(84080817)
44.00	86.00	673.12122	(84080508)	5.00	85.00	823.81158	(84080108)
-30.00	86.00	432.68271	(84071408)	-78.00	-61.00	213.68674	(84081210)
-25.00	-40.00	1032.21960	(84081112)	-96.00	-42.00	457.16296	(84080413)
-96.00	34.00	352.05203	(84081310)	-96.00	110.00	196.88170	(84071009)

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS	2407.07788	ON 84080413:	AT (-24.00, -10.00, 315.47, 2.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 858 Informational Message(s)

A Total of 858 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST3 Finishes Successfully ***
****

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 1 Source(s); 1 Source Group(s); and 26 Receptor(s)

**The Model Assumes A Pollutant Type of: PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: DUMP84T.DTA ; **Output Print File: DUMP84T.LST

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
DUMP	0	0.94061E-02	0.0	0.0	315.5	0.00	3.66	3.66	0.00	0.00	SEASHR

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DUMP ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = DUMP ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	315.5,	3.0);	(-24.0,	-10.0,	315.5,	3.0);
(-14.0,	2.0,	315.5,	3.0);	(-5.0,	14.0,	315.5,	3.0);
(4.0,	26.0,	315.5,	3.0);	(-14.0,	-18.0,	315.5,	3.0);
(5.0,	-6.0,	315.5,	3.0);	(5.0,	6.0,	315.5,	3.0);
(23.0,	18.0,	315.5,	3.0);	(-4.0,	-26.0,	315.5,	3.0);
(6.0,	-13.0,	315.5,	3.0);	(15.0,	-1.0,	315.5,	3.0);
(24.0,	10.0,	315.5,	3.0);	(122.0,	170.0,	317.9,	2.0);
(13.0,	-65.0,	324.6,	2.0);	(36.0,	-29.0,	326.1,	2.0);
(64.0,	6.0,	327.7,	2.0);	(33.0,	39.0,	313.9,	2.0);
(44.0,	86.0,	315.2,	2.0);	(5.0,	85.0,	312.4,	2.0);
(-30.0,	80.0,	311.8,	2.0);	(-78.0,	-61.0,	311.2,	2.0);
(-25.0,	-40.0,	312.7,	2.0);	(-96.0,	-42.0,	308.5,	2.0);
(-96.0,	34.0,	311.2,	2.0);	(-96.0,	110.0,	310.9,	2.0);

**MODELOPTs: CONC   RURAL ELEV   FLGPOL DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: LPITT84.BIN FORMAT: UNFORM
SURFACE STATION NO.: 94823 UPPER AIR STATION NO.: 94823
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 1984 YEAR: 1984

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
84	1	1	1	51.0	3.09	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	2	58.0	1.54	267.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	3	54.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	4	23.0	1.54	268.1	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	5	343.0	1.54	267.0	6	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	6	342.0	2.06	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	7	15.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	8	353.0	2.06	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	9	347.0	2.57	268.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	10	351.0	2.57	269.8	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	11	14.0	2.57	270.9	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	12	346.0	3.09	271.5	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	13	343.0	2.06	272.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	14	339.0	3.60	273.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	15	42.0	3.09	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	16	14.0	3.60	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	17	351.0	2.57	273.7	5	618.6	619.6	0.0000	0.0	0.0000	0	0.00
84	1	1	18	327.0	2.57	272.0	5	596.4	651.4	0.0000	0.0	0.0000	0	0.00
84	1	1	19	324.0	2.57	272.0	5	574.3	683.1	0.0000	0.0	0.0000	0	0.00
84	1	1	20	317.0	3.60	273.1	4	552.1	552.1	0.0000	0.0	0.0000	0	0.00
84	1	1	21	340.0	2.57	272.6	5	529.9	746.7	0.0000	0.0	0.0000	0	0.00
84	1	1	22	342.0	2.57	272.0	5	507.7	778.5	0.0000	0.0	0.0000	0	0.00
84	1	1	23	330.0	2.57	272.0	5	485.6	810.2	0.0000	0.0	0.0000	0	0.00
84	1	1	24	20.0	2.06	271.5	5	463.4	842.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DUMP ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	0.64562	(84070813)	-24.00	-10.00	1113.20166	(84073009)
-14.00	2.00	1013.32172	(84073016)	-5.00	14.00	933.23969	(84070911)
4.00	26.00	1136.68201	(84060408)	-14.00	-18.00	930.06598	(84072509)
5.00	-6.00	518.42657	(84072514)	5.00	6.00	51.02738	(84071412)
23.00	18.00	878.85864	(84073115)	-4.00	-26.00	804.20477	(84072810)
6.00	-13.00	913.47070	(84072514)	15.00	-1.00	873.55188	(84061217)
24.00	10.00	719.27087	(84071914)	122.00	170.00	134.27243	(84080211)
13.00	-65.00	1073.63501	(84081308)	36.00	-29.00	738.87115	(84081812)
64.00	6.00	535.00934	(84071208)	33.00	39.00	1312.96899	(84080817)
44.00	86.00	673.12122	(84080508)	5.00	85.00	823.81158	(84080108)
-30.00	86.00	432.68271	(84071408)	-78.00	-61.00	213.68674	(84081210)
-25.00	-40.00	1032.21960	(84081112)	-96.00	-42.00	457.16296	(84080413)
-96.00	34.00	352.05203	(84081310)	-96.00	110.00	196.88170	(84071009)

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS	1312.96899	ON 84080817:	AT (33.00, 39.00, 313.94, 2.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 858 Informational Message(s)

A Total of 858 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST3 Finishes Successfully ***
****

```
**BEE-Line Software: Standard ISCST3 data input file
**                   Date: 12/15/95  Time: 14:32
NO ECHO


 BEE-Line ISCST3 "BEEST" Version 3.0

 Input File - GRADR84.DTA
Output File - GRADR84.LST
   Met File - LPITT84.BIN


************************************
*** SETUP Finishes Successfully ***
************************************


 *** ISCST3 - VERSION 95250 ***     *** Molycorp - Washington, PA                                                    ***        12/15/96
                                   *** PM emissions from grader spreading, 1984 met, (source on 10 hours ***        14:32:57
                                                                                                                       PAGE   1
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for RURAL Mode
```

```
**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:   1-HR

**This Run Includes:     1 Source(s);      1 Source Group(s); and     26 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =   0.0000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Input Runstream File: GRADR84.DTA                              ;  **Output Print File: GRADR84.LST

 *** ISCST3 - VERSION 95250 ***     *** Molycorp - Washington, PA                                          ***        12/15/96
                                    *** PM emissions from grader spreading, 1984 met, (source on 10 hours ***       14:32:57
                                                                                                                    PAGE   2
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT


                                                *** AREA SOURCE DATA ***

            NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.  EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA  OF AREA    SZ     SCALAR VARY
    ID       CATS.   /METER**2)   (METERS)  (METERS) (METERS) (METERS) (METERS)  (METERS) (DEG.)  (METERS)      BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRADER         0   0.19737E-02      0.0       0.0   315.5     0.00      7.99      7.99      0.00     0.00     SEASHR

 *** ISCST3 - VERSION 95250 ***     *** Molycorp - Washington, PA                                          ***        12/15/96
                                    *** PM emissions from grader spreading, 1984 met, (source on 10 hours ***       14:32:57
                                                                                                                    PAGE   3
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	GRADER ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = GRADER ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SEASON = SPRING											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SEASON = SUMMER											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SEASON = FALL											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT

                                  *** DISCRETE CARTESIAN RECEPTORS ***
                                   (X-COORD, Y-COORD, ZELEV, ZFLAG)
                                               (METERS)

     (      0.0,       0.0,     315.5,        2.0);        (    -24.0,     -10.0,     315.5,        2.0);
     (    -14.0,       2.0,     315.5,        2.0);        (     -5.0,      14.0,     315.5,        2.0);
     (      4.0,      26.0,     315.5,        2.0);        (    -14.0,     -18.0,     315.5,        2.0);
     (      5.0,      -6.0,     315.5,        2.0);        (      5.0,       6.0,     315.5,        2.0);
     (     23.0,      18.0,     315.5,        2.0);        (     -4.0,     -26.0,     315.5,        2.0);
     (      6.0,     -13.0,     315.5,        2.0);        (     15.0,      -1.0,     315.5,        2.0);
     (     24.0,      10.0,     315.5,        2.0);        (    122.0,     170.0,     317.9,        2.0);
     (     13.0,     -65.0,     324.6,        2.0);        (     36.0,     -29.0,     326.1,        2.0);
     (     64.0,       6.0,     327.7,        2.0);        (     33.0,      39.0,     313.9,        2.0);
     (     44.0,      86.0,     315.2,        2.0);        (      5.0,      85.0,     312.4,        2.0);
     (    -30.0,      86.0,     311.8,        2.0);        (    -78.0,     -61.0,     311.2,        2.0);
     (    -25.0,     -40.0,     312.7,        2.0);        (    -96.0,     -42.0,     308.5,        2.0);
     (    -96.0,      34.0,     311.2,        2.0);        (    -96.0,     110.0,     310.9,        2.0);
```

```
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT

                              *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                               (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

            NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                         *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                               (METERS/SEC)
```

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: LPITT84.BIN FORMAT: UNFORM
SURFACE STATION NO.: 94823 UPPER AIR STATION NO.: 94823
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 1984 YEAR: 1984

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)

84	1	1	1	51.0	3.09	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	2	58.0	1.54	267.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	3	54.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	4	23.0	1.54	268.1	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	5	343.0	1.54	267.0	6	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	6	342.0	2.06	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	7	15.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	8	353.0	2.06	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	9	347.0	2.57	268.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	10	351.0	2.57	269.8	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	11	14.0	2.57	270.9	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	12	346.0	3.09	271.5	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	13	343.0	2.06	272.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	14	339.0	3.60	273.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	15	42.0	3.09	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	16	14.0	3.60	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	17	351.0	2.57	273.7	5	618.6	619.6	0.0000	0.0	0.0000	0	0.00
84	1	1	18	327.0	2.57	272.0	5	596.4	651.4	0.0000	0.0	0.0000	0	0.00
84	1	1	19	324.0	2.57	272.0	5	574.3	683.1	0.0000	0.0	0.0000	0	0.00
84	1	1	20	317.0	3.60	273.1	4	552.1	552.1	0.0000	0.0	0.0000	0	0.00
84	1	1	21	340.0	2.57	272.6	5	529.9	746.7	0.0000	0.0	0.0000	0	0.00
84	1	1	22	342.0	2.57	272.0	5	507.7	778.5	0.0000	0.0	0.0000	0	0.00
84	1	1	23	330.0	2.57	272.0	5	485.6	810.2	0.0000	0.0	0.0000	0	0.00
84	1	1	24	20.0	2.06	271.5	5	463.4	842.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): GRADER ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	815.07123	(84070813)	-24.00	-10.00	2043.81750	(84080413)
-14.00	2.00	1647.30457	(84061209)	-5.00	14.00	1721.53540	(84081815)
4.00	26.00	1930.51953	(84060408)	-14.00	-18.00	1399.44348	(84081112)
5.00	-6.00	1543.16064	(84081712)	5.00	6.00	155.03067	(84071412)

23.00	18.00	1343.33337	(84071210)	-4.00	-26.00	891.01947	(84061511)
6.00	-13.00	1284.64661	(84082514)	15.00	-1.00	1537.06580	(84061217)
24.00	10.00	1170.64404	(84071914)	122.00	170.00	136.16792	(84080211)
13.00	-65.00	1014.00787	(84081308)	36.00	-29.00	711.61615	(84070816)
64.00	6.00	641.61560	(84081910)	33.00	39.00	1255.54810	(84080817)
44.00	86.00	688.90033	(84080508)	5.00	85.00	796.30573	(8408C108)
-30.00	86.00	515.24121	(84071408)	-78.00	-61.00	215.52344	(84081210)
-25.00	-40.00	969.63116	(84081112)	-96.00	-42.00	458.58130	(84080413)
-96.00	34.00	299.84335	(84081114)	-96.00	110.00	186.70250	(84071009)

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	2043.81750	ON 84080413: AT (-24.00, -10.00, 315.47, 2.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 858 Informational Message(s)

A Total of 858 Calm Hours Identified

```
******** FATAL ERROR MESSAGES ********
           ***  NONE  ***

********    WARNING MESSAGES    ********
           ***  NONE  ***


************************************
*** ISCST3 Finishes Successfully ***
************************************
```

```
**BEE-Line Software: Standard ISCST3 data input file
**                   Date: 12/15/96  Time: 16:29
NO ECHO


 BEE-Line ISCST3 "BEEST" Version 3.0

 Input File - GRADR84T.DTA
Output File - GRADR84T.LST
   Met File - LPITT84.BIN


************************************
*** SETUP Finishes Successfully ***
************************************


 *** ISCST3 - VERSION 95250 ***     *** Molycorp - Washington, PA              3 m flagpole                    ***        12/15/96
                                   *** PM emissions from grader spreading, 1984 met, (source on 10 hours ***       16:29:52
                                                                                                                      PAGE   1
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
          1. Final Plume Rise.
          2. Stack-tip Downwash.
          3. Buoyancy-induced Dispersion.
          4. Use Calms Processing Routine.
          5. Not Use Missing Data Processing Routine.
          6. Default Wind Profile Exponents.
          7. Default Vertical Potential Temperature Gradients.
          8. "Upper Bound" Values for Supersquat Buildings.
          9. No Exponential Decay for RURAL Mode
```

```
**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:   1-HR

**This Run Includes:    1 Source(s);      1 Source Group(s); and     26 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =   0.0000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Input Runstream File: GRADR84T.DTA                                ;  **Output Print File: GRADR84T.LST

 *** ISCST3 - VERSION 95250 ***     *** Molycorp - Washington, PA              3 m flagpole                    ***        12/15/96
                                    *** PM emissions from grader spreading, 1984 met, (source on 10 hours ***       16:29:52
                                                                                                                      PAGE   2
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT


                                                *** AREA SOURCE DATA ***

            NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.  EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC      X         Y      ELEV.    HEIGHT  OF AREA   OF AREA  OF AREA    SZ     SCALAR VARY
     ID      CATS.   /METER**2)   (METERS)  (METERS) (METERS) (METERS) (METERS)  (METERS) (DEG.)   (METERS)      BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRADER         0   0.19737E-02      0.0       0.0    315.5     0.00      7.99      7.99      0.00      0.00      SEASHR

 *** ISCST3 - VERSION 95250 ***     *** Molycorp - Washington, PA              3 m flagpole                    ***        12/15/96
                                    *** PM emissions from grader spreading, 1984 met, (source on 10 hours ***       16:29:52
                                                                                                                      PAGE   3
**MODELOPTs: CONC                        RURAL  ELEV   FLGPOL DFAULT
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID — SOURCE IDs

ALL GRADER ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = GRADER ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
                                               *** DISCRETE CARTESIAN RECEPTORS ***
                                                 (X-COORD, Y-COORD, ZELEV, ZFLAG)
                                                             (METERS)

     (      0.0,        0.0,       96.2,        3.0);           (     -24.0,      -10.0,       96.2,        3.0);
     (    -14.0,        2.0,       96.2,        3.0);           (      -5.0,       14.0,       96.2,        3.0);
     (      4.0,       26.0,       96.2,        3.0);           (     -14.0,      -18.0,       96.2,        3.0);
     (      5.0,       -6.0,       96.2,        3.0);           (       5.0,        6.0,       96.2,        3.0);
     (     23.0,       18.0,       96.2,        3.0);           (      -4.0,      -26.0,       96.2,        3.0);
     (      6.0,      -13.0,       96.2,        3.0);           (      15.0,       -1.0,       96.2,        3.0);
     (     24.0,       10.0,       96.2,        3.0);           (     122.0,      170.0,       96.9,        2.0);
     (     13.0,      -65.0,       98.9,        2.0);           (      36.0,      -29.0,       99.4,        2.0);
     (     64.0,        6.0,       99.9,        2.0);           (      33.0,       39.0,       95.7,        2.0);
     (     44.0,       86.0,       96.1,        2.0);           (       5.0,       85.0,       95.2,        2.0);
     (    -30.0,       86.0,       95.0,        2.0);           (     -78.0,      -61.0,       94.9,        2.0);
     (    -25.0,      -40.0,       95.3,        2.0);           (     -96.0,      -42.0,       94.0,        2.0);
     (    -96.0,       34.0,       94.9,        2.0);           (     -96.0,      110.0,       94.8,        2.0);
```

```
                                          *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                           (1=YES; 0=NO)

                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
                     1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

          NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                     *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                           (METERS/SEC)
```

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: LPITT84.BIN FORMAT: UNFORM
SURFACE STATION NO.: 94823 UPPER AIR STATION NO.: 94823
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 1984 YEAR: 1984

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)

84	1	1	1	51.0	3.09	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	2	58.0	1.54	267.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	3	54.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	4	23.0	1.54	268.1	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	5	343.0	1.54	267.0	6	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	6	342.0	2.06	267.6	5	619.0	494.0	0.0000	0.0	0.0000	0	0.00
84	1	1	7	15.0	1.54	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	8	353.0	2.06	268.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	9	347.0	2.57	268.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	10	351.0	2.57	269.8	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	11	14.0	2.57	270.9	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	12	346.0	3.09	271.5	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	13	343.0	2.06	272.6	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	14	339.0	3.60	273.1	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	15	42.0	3.09	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	16	14.0	3.60	273.7	4	619.0	619.0	0.0000	0.0	0.0000	0	0.00
84	1	1	17	351.0	2.57	273.7	5	618.6	619.6	0.0000	0.0	0.0000	0	0.00
84	1	1	18	327.0	2.57	272.0	5	596.4	651.4	0.0000	0.0	0.0000	0	0.00
84	1	1	19	324.0	2.57	272.0	5	574.3	683.1	0.0000	0.0	0.0000	0	0.00
84	1	1	20	317.0	3.60	273.1	4	552.1	552.1	0.0000	0.0	0.0000	0	0.00
84	1	1	21	340.0	2.57	272.6	5	529.9	746.7	0.0000	0.0	0.0000	0	0.00
84	1	1	22	342.0	2.57	272.0	5	507.7	778.5	0.0000	0.0	0.0000	0	0.00
84	1	1	23	330.0	2.57	272.0	5	485.6	810.2	0.0000	0.0	0.0000	0	0.00
84	1	1	24	20.0	2.06	271.5	5	463.4	842.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): GRADER ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	158.18764	(84070813)	-24.00	-10.00	1031.83630	(84073009)
-14.00	2.00	935.80078	(84061209)	-5.00	14.00	787.75598	(84070911)
4.00	26.00	931.42798	(84081814)	-14.00	-18.00	787.43982	(84072509)
5.00	-6.00	562.95673	(84081712)	5.00	6.00	10.89720	(84071412)

23.00	18.00	885.00269	(84073115)	-4.00	-26.00	727.72406	(84061511)
6.00	-13.00	787.76953	(84081712)	15.00	-1.00	496.05759	(84061217)
24.00	10.00	715.05658	(84081010)	122.00	170.00	136.16792	(84080211)
13.00	-65.00	1014.00787	(84081308)	36.00	-29.00	711.61615	(84070816)
64.00	6.00	641.61560	(84081910)	33.00	39.00	1255.54810	(84080817)
44.00	86.00	688.90033	(84080508)	5.00	85.00	796.30573	(84080108)
-30.00	86.00	515.24121	(84071408)	-78.00	-61.00	215.52344	(84081210)
-25.00	-40.00	969.63116	(84081112)	-96.00	-42.00	458.58130	(84080413)
-96.00	34.00	299.84335	(84081114)	-96.00	110.00	186.70250	(84071009)

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 1255.54810	ON 84080817:	AT (33.00, 39.00, 95.69, 2.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 858 Informational Message(s)

A Total of 858 Calm Hours Identified

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******** FATAL ERROR MESSAGES ********
           ***  NONE  ***

********    WARNING MESSAGES    ********
           ***  NONE  ***


************************************
*** ISCST3 Finishes Successfully ***
************************************
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Air Modeling Output for Washington

	Input Map coord system (ft)		Output Local coord system (m)		Dump 1-hr avg air conc (2 m flag) *						Grader 1-hr avg air conc (2 m flag) *					
Type	x	y	x	y	1984	1985	1986	1987	1988	Max	1984	1985	1986	1987	1988	Max
Source (origin)	13565.4	10638.8	0	0	74.1	55.3	49.1	30.4	44.9	74.1	815.1	728.7	633.8	718.2	602.6	815.1
Workers	13487.7	10604.8	-24	-10	2407.1	1130.9	1818.2	2532.9	2632.4	2632.4	2043.8	922.4	1359.4	1808.4	2004.0	2043.8
Workers	13517.9	10644.6	-14	2	2042.5	1099.7	2430.0	2042.5	1572.1	2430.0	1647.3	1476.5	1948.9	1368.5	1500.5	1948.9
Workers	13548.1	10684.4	-5	14	2331.5	2361.3	1824.3	1871.9	2185.8	2361.3	1721.5	1842.6	1842.6	1792.2	1593.9	1842.6
Workers	13576.9	10722.9	4	26	2269.8	2217.6	2237.1	1582.0	1573.1	2269.8	1930.5	1955.7	1759.8	1447.2	1447.9	1955.7
Workers	13520.8	10579.8	-14	-18	1796.6	1215.6	969.8	1976.4	1546.1	1976.4	1399.4	1082.5	968.1	1624.1	1232.6	1624.1
Workers	13581	10619.6	5	-6	2017.3	1314.4	1278.6	1601.2	1194.1	2017.3	1543.2	1408.9	1181.6	1354.0	1587.5	1587.5
Workers	13581.3	10659.4	5	6	685.8	526.1	786.6	1073.2	691.4	1073.2	155.0	121.1	178.3	248.8	153.3	248.8
Workers	13641	10697.9	23	18	1915.2	1966.3	2645.4	1532.5	1587.2	2645.4	1343.3	1923.8	1850.1	1745.7	1291.0	1923.8
Workers	13553.9	10554.8	-4	-26	1016.5	2244.9	903.4	1711.8	1956.0	2244.9	891.0	2030.6	989.8	1396.1	1318.2	2030.6
Workers	13584.2	10594.6	6	-13	1598.3	2023.9	1517.9	2147.0	1533.7	2147.0	1284.6	1651.7	1678.1	1427.8	1227	1678.1
Workers	13614.4	10634.4	15	-1	2245.1	2273.0	2080.9	1774.4	1342.1	2273.0	1537.1	1579.9	1750.7	1743.0	1314.6	1750.7
Workers	13643.1	10672.9	24	10	1547.7	1490.9	1863.7	1676.6	2166.9	2166.9	1170.6	1190.2	1174.6	1425.2	1676.0	1676.0
Average worker			---	---	1688.3	1563.1	1569.6	1657.9	1540.4	1688.3	1344.8	1378.1	1332.0	1392.2	1303.4	1392.2
Max worker			---	---	2407.1	2361.3	2645.4	2532.9	2632.4	2645.4	2043.8	2030.6	1948.9	1808.4	2004.0	2043.8
Nearest neighbor	13967	11195	122	170	134.3	98.5	73.2	85.4	84.8	134.3	136.2	103.3	73.8	86.1	87.3	136.2
Fence-line	13609	10424	13	-65	1073.6	670.6	525.0	838.3	375.0	1073.6	1014.0	589.6	589.6	678.3	421.1	1014.0
Fence-line	13684	10543	36	-29	738.9	668.3	692.6	1185.1	1299.2	1299.2	711.6	1077.5	704.8	1231.5	1182.3	1231.5
Fence-line	13775	10658	64	6	535.0	542.3	477.1	759.3	739.2	759.3	641.6	641.6	713.7	688.4	571.0	713.7
Fence-line	13674	10768	33	39	1313.0	974.6	811.9	1619.7	875.3	1619.7	1255.5	967.6	822.7	1545.0	837.0	1545.0
Fence-line	13710	10920	44	86	673.1	325.4	292.2	641.4	252.4	673.1	688.9	317.7	317.6	675.0	258.3	688.9
Fence-line	13583	10918	5	85	823.8	617.9	487.5	497.2	424.9	823.8	796.3	597.2	445.8	582.8	535.0	796.3
Fence-line	13468	10920	-30	86	432.7	301.6	527.8	410.6	545.9	545.9	515.2	337.8	563.0	336.4	514.4	563.0
Fence-line	13308.4	10438	-78	-61	213.7	186.3	581.3	591.9	477.7	591.9	215.5	175.9	534.2	552.6	436.3	552.6
Fence-line	13485	10507	-25	-40	1032.2	690.7	1208.8	690.7	986.9	1208.8	969.6	565.4	989.4	614.2	861.1	989.4
Max fenceline			---	---	1313.0	974.6	1208.8	1619.7	1299.2	1619.7	1255.5	1077.5	989.4	1545.0	1182.3	1545.0
East edge	13250	10500	-96	-42	457.2	168.6	331.0	534.4	540.7	540.7	458.6	174.4	297.1	482.7	512.6	512.6
East edge	13250	10750	-96	34	352.1	568.7	284.4	395.3	369.9	568.7	299.8	557.6	281.5	414.6	283.9	557.6
East edge	13250	11000	-96	110	196.9	241.9	196.9	196.9	226.8	241.9	186.7	242.4	186.7	186.7	240.5	242.4

* Air concentrations in $\mu g/m^3$.

Air Modeling Output for Washington

	Input Map coord system (ft)		Output Local coord system (m)		Dump 1-hr avg air conc (3 m flag for workers) *						Grader 1-hr avg air conc (3 m flag for workers) *					
Type	x	y	x	y	1984	1985	1986	1987	1988	Max	1984	1985	1986	1987	1988	Max
Source (origin)	13565.4	10638.8	0	0	0.6	0.4	0.4	0.2	0.4	0.6	158.2	131.3	109.7	74.6	97.6	158.2
Workers	13487.7	10604.8	-24	-10	1113.2	718.3	1154.2	901.0	936.6	1154.2	1031.8	626.5	922.8	882.1	829.9	1031.8
Workers	13517.9	10644.6	-14	2	1013.3	574.6	1030.2	1013.3	781.2	1030.2	935.8	568.6	772.0	737.5	849.7	935.8
Workers	13548.1	10684.4	-5	14	933.2	976.0	732.0	754.9	976.8	976.8	787.8	702.0	699.6	679.2	680.8	787.8
Workers	13576.9	10722.9	4	26	1136.7	1210.0	1220.9	862.4	947.6	1220.9	931.4	937.1	931.4	903.2	799.7	937.1
Workers	13520.8	10579.8	-14	-18	930.1	702.6	702.2	1129.2	838.6	1129.2	787.4	599.2	606.1	1021.7	718.8	1021.7
Workers	13581	10619.6	5	-6	518.4	156.5	306.9	367.9	294.3	518.4	563.0	392.8	432.3	485.1	581.5	581.5
Workers	13581.3	10659.4	5	6	51.0	38.7	55.9	73.7	51.7	73.7	10.9	8.2	11.9	15.7	10.9	15.7
Workers	13641	10697.9	23	18	878.9	1179.3	969.8	1139.4	892.5	1179.3	885.0	1001.4	804.4	1235.1	916.1	1235.1
Workers	13553.9	10554.8	-4	-26	804.2	798.6	608.9	1086.5	838.0	1086.5	727.7	890.6	667.9	942.6	722.8	942.6
Workers	13584.2	10594.6	6	-13	913.5	966.1	724.5	1028.9	738.7	1028.9	787.8	880.6	660.4	756.8	825.8	880.6
Workers	13614.4	10634.4	15	-1	873.6	885.3	952.3	746.0	721.1	952.3	486.1	573.2	706.8	562.7	574.4	706.8
Workers	13643.1	10672.9	24	10	719.3	770.2	605.7	1111.5	1145.9	1145.9	715.1	661.3	755.8	1044.5	948.0	1044.5
Average worker			---	---	760.5	690.5	697.2	785.8	704.9	785.8	677.5	613.3	621.6	718.5	658.1	718.5
Max worker			---	---	1136.7	1210.0	1220.9	1139.4	1145.9	1220.9	1031.8	1001.4	931.4	1235.1	948.0	1235.1
Nearest neighbor	13967	11195	122	170	134.3	98.5	73.2	85.4	84.8	134.3	136.2	103.3	73.8	86.1	87.3	136.2
Fence-line	13609	10424	13	-65	1073.6	670.6	525.0	838.3	375.0	1073.6	1014.0	589.6	589.6	678.3	421.1	1014.0
Fence-line	13684	10543	36	-29	738.9	668.3	692.6	1185.1	1299.2	1299.2	711.6	1077.5	704.8	1231.5	1182.3	1231.5
Fence-line	13775	10658	64	6	535.0	542.3	477.1	759.3	739.2	759.3	641.6	641.6	713.7	688.4	571.0	713.7
Fence-line	13674	10768	33	39	1313.0	974.6	811.9	1619.7	875.3	1619.7	1255.5	967.6	822.7	1545.0	837.0	1545.0
Fence-line	13710	10920	44	86	673.1	325.4	292.2	641.4	252.4	673.1	688.9	317.7	317.6	675.0	258.3	688.9
Fence-line	13583	10918	5	85	823.8	617.9	487.5	497.2	424.9	823.8	796.3	597.2	445.8	582.8	535.0	796.3
Fence-line	13468	10920	-30	86	432.7	301.6	527.8	410.6	545.9	545.9	515.2	337.8	563.0	336.4	514.4	563.0
Fence-line	13308.4	10438	-78	-61	213.7	186.3	581.3	591.9	477.7	591.9	215.5	175.9	534.2	552.6	436.3	552.6
Fence-line	13485	10507	-25	-40	1032.2	690.7	1208.8	690.7	986.9	1208.8	969.6	565.4	989.4	614.2	861.1	989.4
Max fenceline			---	---	1313.0	974.6	1208.8	1619.7	1299.2	1619.7	1255.5	1077.5	989.4	1545.0	1182.3	1545.0
East edge	13250	10500	-96	-42	457.2	168.6	331.0	534.4	540.7	540.7	458.6	174.4	297.1	482.7	512.6	512.6
East edge	13250	10750	-96	34	352.1	568.7	284.4	395.3	369.9	568.7	299.8	557.6	281.5	414.6	283.9	557.6
East edge	13250	11000	-96	110	196.9	241.9	196.9	196.9	226.8	241.9	186.7	242.4	186.7	186.7	240.5	242.4

YORK ISCST3 INPUT AND OUTPUT

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 1 Source(s); 2 Source Group(s); and 8 Receptor(s)

**The Model Assumes A Pollutant Type of: PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

```
                                                    m for Missing Hours
                                                    b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =   0.0000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                  ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Input Runstream File: YORK85-4.DTA                          ;  **Output Print File: YORK85-4.LST
```

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
G9	0	0.21000E-01	58.0	-3.0	119.3	2.00	2.00	3.00	0.00	0.00	SEASHR

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	G9 ,
G9	G9 ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G9 ; SOURCE TYPE = AREA ;

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G9(2) ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 58.00 ; Y-ORIG = -3.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G9(2) ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.33
135.00	119.33
225.00	119.33
315.00	119.33

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G9(2) : NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G9(3) ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 58.00 ; Y-ORIG = -3.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G9(3) ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.33
135.00	119.33
225.00	119.33
315.00	119.33

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G9(3) ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	3.00
135.00	3.00
225.00	3.00
315.00	3.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 7 Source(s); 7 Source Group(s); and 60 Receptor(s)

**The Model Assumes A Pollutant Type of: PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

```
                                                    m for Missing Hours
                                                    b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =   0.0000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Input Runstream File: york85-3.dta                          ;  **Output Print File: york85-3.lst
```

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ORIGIN	0	0.00000E+00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	NO	

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
G4	0	0.21000E-01	48.0	31.0	118.9	2.00	2.00	3.00	0.00	0.00	SEASHR
G5	0	0.21000E-01	84.0	27.0	120.0	2.00	2.00	3.00	0.00	0.00	SEASHR
G6	0	0.21000E-01	69.0	20.0	119.1	2.00	2.00	3.00	0.00	0.00	SEASHR
G7	0	0.21000E-01	35.0	2.0	119.7	2.00	2.00	3.00	0.00	0.00	SEASHR
G8	0	0.21000E-01	41.0	-12.0	119.6	2.00	2.00	3.00	0.00	0.00	SEASHR
G9	0	0.21000E-01	58.0	-3.0	119.3	2.00	2.00	3.00	0.00	0.00	SEASHR

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	ORIGIN , G4 , G5 , G6 , G7 , G8 , G9 ,
G4	G4 ,
G5	G5 ,
G6	G6 ,
G7	G7 ,
G8	G8 ,
G9	G9 ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G4 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G5 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G6 ; SOURCE TYPE = AREA ;

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G7 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHP; *

SOURCE ID = G8 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G9 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G4 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 48.00 ; Y-ORIG = 31.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G4 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	118.93
135.00	118.93
225.00	118.93
315.00	118.93

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G4 : NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G5 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 84.00 ; Y-ORIG = 27.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G5 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	120.00
135.00	120.00
225.00	120.00
315.00	120.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G5 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G6 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 69.00 ; Y-ORIG = 20.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G6 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.15
135.00	119.15
225.00	119.15
315.00	119.15

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G6 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G7 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 35.00 Y-ORIG = 2.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G7 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.66
135.00	119.66
225.00	119.66
315.00	119.66

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G7 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G8 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 41.00 ; Y-ORIG = -12.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DEFAULT

*** NETWORK ID: G8 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.60
135.00	119.60
225.00	119.60
315.00	119.60

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G8 : NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS)

G9	: (	10.0,	360.0,	119.3,	2.0);	G9	: (	10.0,	90.0,	119.3,	2.0);
G9	: (	10.0,	180.0,	119.3,	2.0);	G9	: (	10.0,	270.0,	119.3,	2.0);

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** BOUNDARY RECEPTOR LOCATIONS ***
(DISCRETE RECEPTORS AT 10 DEGREE SECTORS)

BOUNDARY RECEPTORS FOR SOURCE ID: ORIGIN
OF SOURCE TYPE: POINT ; WITH ORIGIN AT (0.00, 0.00, 0.00)

SEC.	XCOORD	YCOORD	ZELEV	ZFLAG	SEC.	XCOORD	YCOORD	ZELEV	ZFLAG	SEC.	XCOORD	YCOORD	ZELEV	ZFLAG
1	14.93,	84.69,	118.41,	2.0	2	29.41,	80.81,	118.26,	2.0	3	44.50,	77.08,	117.35,	2.0
4	60.42,	72.01,	118.32,	2.0	5	79.67,	66.85,	118.51,	2.0	6	100.46,	58.00,	118.72,	2.0
7	93.97,	34.20,	118.87,	2.0	8	89.62,	15.80,	119.18,	2.0	9	86.00,	0.00,	119.85,	2.0
10	81.74,	-14.41,	120.40,	2.0	11	77.99,	-28.39,	121.16,	2.0	12	67.55,	-39.00,	121.31,	2.0
13	52.86,	-44.35,	121.01,	2.0	14	41.14,	-49.03,	121.92,	2.0	15	30.50,	-52.83,	121.92,	2.0
16	19.84,	-54.50,	121.92,	2.0	17	11.29,	-64.01,	122.07,	2.0	18	0.00,	-63.00,	122.22,	2.0
19	-10.94,	-62.04,	122.22,	2.0	20	-21.89,	-60.14,	122.38,	2.0	21	-53.00,	-91.80,	123.29,	2.0
22	-68.78,	-81.97,	123.75,	2.0	23	-78.14,	-65.56,	124.21,	2.0	24	-86.60,	-50.00,	123.96,	2.0
25	-87.39,	-31.81,	123.90,	2.0	26	-87.65,	-15.45,	123.60,	2.0	27	-85.00,	0.00,	123.29,	2.0
28	-80.75,	14.24,	122.99,	2.0	29	-76.12,	27.70,	122.68,	2.0	30	-71.01,	41.00,	122.68,	2.0
31	-63.58,	53.35,	121.92,	2.0	32	-59.78,	71.24,	121.31,	2.0	33	-50.50,	87.47,	120.40,	2.0
34	-35.57,	97.73,	119.57,	2.0	35	-16.50,	93.56,	118.96,	2.0	36	0.00,	89.00,	118.51,	2.0

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 6 Source(s); 6 Source Group(s); and 56 Receptor(s)

**The Model Assumes A Pollutant Type of: PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: york85-2.dta ; **Output Print File: york85-2.lst

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ORIGIN	0	0.00000E+00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	NO	

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
E1	0	0.21000E-01	10.0	72.0	118.6	2.00	2.00	3.00	0.00	0.00	SEASHR
E2	0	0.21000E-01	7.0	58.0	118.9	2.00	2.00	3.00	0.00	0.00	SEASHR
G1	0	0.21000E-01	37.0	55.0	118.4	2.00	2.00	3.00	0.00	0.00	SEASHR
G2	0	0.21000E-01	29.0	29.0	119.2	2.00	2.00	3.00	0.00	0.00	SEASHR
G3	0	0.21000E-01	59.0	33.0	118.7	2.00	2.00	3.00	0.00	0.00	SEASHR

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	ORIGIN , E1 , E2 , G1 , G2 , G3 ,
E1	E1 ,
E2	E2 ,
G1	G1 ,
G2	G2 ,
G3	G3 ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = E1 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = E2 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G1 ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G2 : SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = G3 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SEASON = SPRING											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SEASON = SUMMER											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SEASON = FALL											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: E1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 10.00 ; Y-ORIG = 72.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: E1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	118.57
135.00	118.57
225.00	118.57
315.00	118.57

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: E1 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: E2 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 7.00 ; Y-ORIG = 58.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: E2 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	118.87
135.00	118.87
225.00	118.87
315.00	118.87

**MODELOPTs: CONC RURAL F'EV FLGPOL DFAULT

*** NETWORK ID: E2 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G1 : NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 37.00 ; Y-ORIG = 55.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G1 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	118.35
135.00	118.35
225.00	118.35
315.00	118.35

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G1 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G2 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 29.00 ; Y-ORIG = 29.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G2 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.18
135.00	119.18
225.00	119.18
315.00	119.18

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G2 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: G3 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 59.00 ; Y-ORIG = 33.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G3 ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	118.72
135.00	118.72
225.00	118.72
315.00	118.72

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: G3 ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** BOUNDARY RECEPTOR LOCATIONS ***
(DISCRETE RECEPTORS AT 10 DEGREE SECTORS)

BOUNDARY RECEPTORS FOR SOURCE ID: ORIGIN
OF SOURCE TYPE: POINT ; WITH ORIGIN AT (0.00, 0.00, 0.00)

SEC.	XCOORD	YCOORD	ZELEV	ZFLAG	SEC.	XCOORD	YCOORD	ZELEV	ZFLAG	SEC.	XCOORD	YCOORD	ZELEV	ZFLAG
1	14.93,	84.69,	118.41,	2.0	2	29.41,	80.81,	118.26,	2.0	3	44.50,	77.08,	117.35,	2.0
4	60.42,	72.01,	118.32,	2.0	5	79.67,	66.85,	118.51,	2.0	6	100.46,	58.00,	118.72,	2.0
7	93.97,	34.20,	118.87,	2.0	8	89.62,	15.80,	119.18,	2.0	9	86.00,	0.00,	119.85,	2.0
10	81.74,	-14.41,	120.40,	2.0	11	77.99,	-28.39,	121.16,	2.0	12	67.55,	-39.00,	121.31,	2.0
13	52.86,	-44.35,	121.01,	2.0	14	41.14,	-49.03,	121.92,	2.0	15	30.50,	-52.83,	121.92,	2.0
16	19.84,	-54.50,	121.92,	2.0	17	11.29,	-64.01,	122.07,	2.0	18	0.00,	-63.00,	122.22,	2.0
19	-10.94,	-62.04,	122.22,	2.0	20	-21.89,	-60.14,	122.38,	2.0	21	-53.00,	-91.80,	123.29,	2.0
22	-68.78,	-81.97,	123.75,	2.0	23	-78.14,	-65.56,	124.21,	2.0	24	-86.60,	-50.00,	123.96,	2.0
25	-87.39,	-31.81,	123.90,	2.0	26	-87.65,	-15.45,	123.60,	2.0	27	-85.00,	0.00,	123.29,	2.0
28	-80.75,	14.24,	122.99,	2.0	29	-76.12,	27.70,	122.68,	2.0	30	-71.01,	41.00,	122.68,	2.0
31	-63.58,	53.35,	121.92,	2.0	32	-59.78,	71.24,	121.31,	2.0	33	-50.50,	87.47,	120.40,	2.0
34	-35.57,	97.73,	119.57,	2.0	35	-16.50,	93.56,	118.96,	2.0	36	0.00,	89.00,	118.51,	2.0

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 6 Source(s); 6 Source Group(s); and 56 Receptor(s)

**The Model Assumes A Pollutant Type of: PM

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours

```
                                                    m for Missing Hours
                                                    b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =   0.0000     ;    Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ; Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Input Runstream File: york85-1.dta                          ; **Output Print File: york85-1.lst
```

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ORIGIN	0	0.00000E+00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	NO	

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
A	0	0.21000E-01	-48.0	56.0	121.5	2.00	2.00	3.00	0.00	0.00	SEASHR
B	0	0.21000E-01	-47.0	16.0	122.6	2.00	2.00	3.00	0.00	0.00	SEASHR
C	0	0.21000E-01	-22.0	30.0	120.9	2.00	2.00	3.00	0.00	0.00	SEASHR
D	0	0.21000E-01	-19.0	80.0	119.8	2.00	2.00	3.00	0.00	0.00	SEASHR
F	0	0.21000E-01	89.0	61.0	118.6	2.00	2.00	3.00	0.00	0.00	SEASHR

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	A , B , C , D , F , ORIGIN ,
B	B ,
C	C ,
D	D ,
F	F ,
A	A ,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SZASHR) *

SOURCE ID = A ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = B : SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = C ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = D ; SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY AND DIURNALLY (SEASHR) *

SOURCE ID = F : SOURCE TYPE = AREA :

SEASON = WINTER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SPRING

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = SUMMER

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SEASON = FALL

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: A ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = -48.00 ; Y-ORIG = 56.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: A ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	121.46
135.00	121.46
225.00	121.46
315.00	121.46

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: A ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: B ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = -47.00 ; Y-ORIG = 16.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: B ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	122.59
135.00	122.59
225.00	122.59
315.00	122.59

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: B ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR F'AGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: C ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = -22.00 ; Y-ORIG = 30.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: C ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	120.88
135.00	120.88
225.00	120.88
315.00	120.88

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: C ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: D ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = -19.00 ; Y-ORIG = 80.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: D ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	119.82
135.00	119.82
225.00	119.82
315.00	119.82

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: D ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: F ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 89.00 ; Y-ORIG = 61.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

45.0, 135.0, 225.0, 315.0,

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: F ; NETWORK TYPE: GRIDPOLR ***

* ELEVATION HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	118.60
135.00	118.60
225.00	118.60
315.00	118.60

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** NETWORK ID: F ; NETWORK TYPE: GRIDPOLR ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
45.00	2.00
135.00	2.00
225.00	2.00
315.00	2.00

**MODELOPTs: CONC RURAL ELEV FLGPOL DFAULT

*** BOUNDARY RECEPTOR LOCATIONS ***
(DISCRETE RECEPTORS AT 10 DEGREE SECTORS)

BOUNDARY RECEPTORS FOR SOURCE ID: ORIGIN
OF SOURCE TYPE: POINT : WITH ORIGIN AT (0.00, 0.00, 0.00)

SEC.	XCOORD	YCOORD	ZELEV	ZFLAG	SEC.	XCOORD	YCOORD	ZELEV	ZFLAG	SEC.	XCOORD	YCOORD	ZELEV	ZFLAG
1	14.93,	84.69,	118.41,	2.0	2	29.41,	80.81,	118.26,	2.0	3	44.50,	77.08,	117.35,	2.0
4	60.42,	72.01,	118.32,	2.0	5	79.67,	66.85,	118.51,	2.0	6	100.46,	58.00,	118.72,	2.0
7	93.97,	34.20,	118.87,	2.0	8	89.62,	15.80,	119.18,	2.0	9	86.00,	0.00,	119.85,	2.0
10	81.74,	-14.41,	120.40,	2.0	11	77.99,	-28.39,	121.16,	2.0	12	67.55,	-39.00,	121.31,	2.0
13	52.86,	-44.35,	121.01,	2.0	14	41.14,	-49.03,	121.92,	2.0	15	30.50,	-52.83,	121.92,	2.0
16	19.84,	-54.50,	121.92,	2.0	17	11.29,	-64.01,	122.07,	2.0	18	0.00,	-63.00,	122.22,	2.0
19	-10.94,	-62.04,	122.22,	2.0	20	-21.89,	-60.14,	122.38,	2.0	21	-53.00,	-91.80,	123.29,	2.0
22	-68.78,	-81.97,	123.75,	2.0	23	-78.14,	-65.56,	124.21,	2.0	24	-86.60,	-50.00,	123.96,	2.0
25	-87.39,	-31.81,	123.90,	2.0	26	-87.65,	-15.45,	123.60,	2.0	27	-85.00,	0.00,	123.29,	2.0
28	-80.75,	14.24,	122.99,	2.0	29	-76.12,	27.70,	122.68,	2.0	30	-71.01,	41.00,	122.68,	2.0
31	-63.58,	53.35,	121.92,	2.0	32	-59.78,	71.24,	121.31,	2.0	33	-50.50,	87.47,	120.40,	2.0
34	-35.57,	97.73,	119.57,	2.0	35	-16.50,	93.56,	118.96,	2.0	36	0.00,	89.00,	118.51,	2.0

Air Modeling Output for York

	Local coord system (m)		Truck Loading (Batch Drop) 1-hr avg air conc (2 m flag) *					
Type	x	y	1985	1987	1988	1989	1990	Max
A Workers	-40.49	63.28	16461.79	16101.68	12005.33	10075.59	8862.13	16461.79
A Workers	-40.49	49.13	9552.51	9773.93	8549.80	11963.29	7975.53	11963.29
A Workers	-54.63	49.13	10669.99	13114.28	10061.77	7868.30	9835.71	13114.28
A Workers	-54.63	63.28	12663.61	12663.61	6636.49	11207.65	8223.43	12663.61
Max A Workers	---	---	16461.79	16101.68	12005.33	11963.29	9835.71	16461.79
B Workers	-39.62	22.64	16461.81	16101.67	12005.35	10075.55	8862.16	16461.81
B Workers	-39.62	8.49	9552.51	9773.92	8549.83	11963.30	7975.54	11963.30
B Workers	-53.76	8.49	10670.00	13114.29	10061.77	7868.31	9835.72	13114.29
B Workers	-53.76	22.64	12663.61	12663.61	6636.49	11207.64	8223.43	12663.61
Max B Workers	---	---	16461.81	16101.67	12005.35	11963.30	9835.72	16461.81
C Workers	-15.41	37.33	16461.80	16101.67	12005.34	10075.54	8862.15	16461.80
C Workers	-15.41	23.19	9552.51	9773.93	8549.82	11963.32	7975.54	11963.32
C Workers	-29.55	23.19	10670.02	13114.28	10061.78	7868.31	9835.71	13114.28
C Workers	-29.55	37.33	12663.62	12663.62	6636.47	11207.65	8223.43	12663.62
Max C Workers	---	---	16461.80	16101.67	12005.34	11963.32	9835.71	16461.80
D Workers	-12.38	87.05	16461.77	16101.68	12005.32	10075.56	8862.16	16461.77
D Workers	-12.38	72.91	9552.51	9773.91	8549.83	11963.30	7975.54	11963.30
D Workers	-26.53	72.91	10670.02	13114.28	10061.78	7868.32	9835.71	13114.28
D Workers	-26.53	87.05	12663.59	12663.59	6636.45	11207.66	8223.42	12663.59
Max D Workers	---	---	16461.77	16101.68	12005.32	11963.30	9835.71	16461.77
E1 Workers	17.01	79.27	16461.78	16101.67	12005.32	10075.56	8862.15	16461.78
E1 Workers	17.01	65.13	9552.50	9773.93	8549.79	11963.32	7975.55	11963.32
E1 Workers	2.87	65.13	10670.01	13114.27	10061.78	7868.32	9835.70	13114.27
E1 Workers	2.87	79.27	12663.61	12663.61	6636.45	11207.66	8223.42	12663.61
Max E1 Workers	---	---	16461.78	16101.67	12005.32	11963.32	9835.70	16461.78
E2 Workers	14.42	64.57	16461.79	16101.67	12005.33	10075.56	8862.15	16461.79
E2 Workers	14.42	50.43	9552.51	9773.93	8549.80	11963.32	7975.55	11963.32
E2 Workers	0.28	50.43	10670.01	13114.28	10061.77	7868.32	9835.71	13114.28
E2 Workers	0.28	64.57	12663.60	12663.60	6636.46	11207.64	8223.43	12663.60
Max E2 Workers	---	---	16461.79	16101.67	12005.33	11963.32	9835.71	16461.79
F Workers	96.57	68.03	16461.76	16101.62	12005.31	10075.53	8862.12	16461.76
F Workers	96.57	53.89	9552.49	9773.91	8549.81	11963.29	7975.53	11963.29
F Workers	82.42	53.89	10670.00	13114.23	10061.77	7868.29	9835.67	13114.23
F Workers	82.42	68.03	12663.60	12663.60	6636.47	11207.64	8223.42	12663.60
Max F Workers	---	---	16461.76	16101.62	12005.31	11963.29	9835.67	16461.76
G1 Workers	43.82	62.41	16461.79	16101.68	12005.34	10075.55	8862.16	16461.79
G1 Workers	43.82	48.27	9552.50	9773.93	8549.83	11963.30	7975.54	11963.30
G1 Workers	29.68	48.27	10670.02	13114.28	10061.78	7868.32	9835.71	13114.28
G1 Workers	29.68	62.41	12663.61	12663.61	6636.46	11207.65	8223.42	12663.61
Max G1 Workers	---	---	16461.79	16101.68	12005.34	11963.30	9835.71	16461.79
G2 Workers	36.04	36.47	16461.79	16101.66	12005.33	10075.57	8862.15	16461.79
G2 Workers	36.04	22.33	9552.49	9773.93	8549.81	11963.32	7975.55	11963.32
G2 Workers	21.90	22.33	10670.03	13114.28	10061.78	7868.32	9835.71	13114.28
G2 Workers	21.90	36.47	12663.61	12663.61	6636.47	11207.67	8223.44	12663.61
Max G2 Workers	---	---	16461.79	16101.66	12005.33	11963.32	9835.71	16461.79
G3 Workers	65.87	40.36	16461.79	16101.63	12005.33	10075.57	8862.15	16461.79
G3 Workers	65.87	26.22	9552.49	9773.93	8549.80	11963.32	7975.55	11963.32
G3 Workers	51.73	26.22	10670.01	13114.27	10061.79	7868.33	9835.71	13114.27
G3 Workers	51.73	40.36	12663.60	12663.60	6636.47	11207.65	8223.44	12663.60
Max G3Workers	---	---	16461.79	16101.63	12005.33	11963.32	9835.71	16461.79
G4 Workers	54.63	37.77	16461.78	16101.66	12005.33	10075.57	8862.16	
G4 Workers	54.63	23.63	9552.50	9773.93	8549.81	11963.32	7975.55	11963.32
G4 Workers	40.49	23.63	10670.00	13114.28	10061.78	7868.31	9835.71	13114.28
G4 Workers	40.49	37.77	12663.61	12663.61	6636.48	11207.65	8223.44	12663.61
Max G4 Workers	---	---	16461.78	16101.66	12005.33	11963.32	9835.71	16461.78
G5 Workers	90.95	34.31	16461.77	16101.60	12005.32	10075.49	8862.12	16461.77
G5 Workers	90.95	20.17	9552.46	9773.93	8549.79	11963.32	7975.54	11963.32
G5 Workers	76.80	20.17	10670.01	13114.26	10061.75	7868.30	9835.69	13114.26
G5 Workers	76.80	34.31	12663.60	12663.60	6636.47	11207.62	8223.42	12663.60
Max G5 Workers	---	---	16461.77	16101.60	12005.32	11963.32	9835.69	16461.77

Air Modeling Output for York

G6 Workers	76.25	26.96	16461.76	16101.66	12005.31	10075.54	8862.12	16461.76
G6 Workers	76.25	12.82	9552.48	9773.91	8549.82	11963.28	7975.52	11963.28
G6 Workers	62.10	12.82	10670.03	13114.26	10061.76	7868.30	9835.70	13114.26
G6 Workers	62.10	26.96	12663.60	12663.60	6636.46	11207.66	8223.42	12663.60
Max G6 Workers	---	---	16461.76	16101.66	12005.31	11963.28	9835.70	16461.76
G7 Workers	42.09	9.23	16461.79	16101.67	12005.33	10075.56	8862.15	16461.79
G7 Workers	42.09	-4.91	9552.51	9773.93	8549.81	11963.30	7975.54	11963.30
G7 Workers	27.95	-4.91	10670.02	13114.27	10061.77	7868.31	9835.71	13114.27
G7 Workers	27.95	9.23	12663.61	12663.61	6636.48	11207.65	8223.44	12663.61
Max G7 Workers	---	---	16461.79	16101.67	12005.33	11963.30	9835.71	16461.79
G8 Workers	48.14	-5.03	16461.79	16101.68	12005.34	10075.58	8862.15	16461.79
G8 Workers	48.14	-19.18	9552.50	9773.92	8549.83	11963.30	7975.54	11963.30
G8 Workers	34.00	-19.18	10670.02	13114.28	10061.76	7868.31	9835.71	13114.28
G8 Workers	34.00	-5.03	12663.61	12663.61	6636.47	11207.65	8223.43	12663.61
Max G8 Workers	---	---	16461.79	16101.68	12005.34	11963.30	9835.71	16461.79
G9 Workers	65.00	4.04	16461.8	16101.65	12005.34	10075.57	8862.138	16461.80
G9 Workers	65.00	-10.10	9552.501	9773.921	8549.822	11963.3	7975.532	11963.30
G9 Workers	50.86	-10.10	10670.03	13114.29	10061.77	7868.309	9835.715	13114.29
G9 Workers	50.86	4.04	12663.61	12663.61	6636.469	11207.66	8223.423	12663.61
Max G9 Workers	---	---	16461.80	16101.65	12005.34	11963.30	9835.71	16461.80
Average worker (All)	---	---	12336.98	12913.37	9313.35	10278.71	8724.20	12913.37
Max worker (All)	---	---	16461.81	16101.68	12005.35	11963.32	9835.72	16461.81

Air Modeling Output for York

A Fence-line	14.86	84.30	748.39	677.20	730.09	748.39	603.67	748.39
A Fence-line	29.28	80.44	585.25	469.63	441.01	587.04	469.63	587.04
A Fence-line	44.31	76.76	393.43	463.16	314.74	338.53	372.92	463.16
A Fence-line	60.58	72.20	302.72	308.31	291.95	375.23	257.24	375.23
A Fence-line	79.49	66.70	194.22	380.97	154.25	246.86	236.17	380.97
A Fence-line	100.72	58.15	207.27	255.98	154.42	154.42	152.43	255.98
A Fence-line	94.25	34.31	243.36	155.60	170.50	138.70	229.75	243.36
A Fence-line	89.41	15.77	222.84	139.53	100.86	177.46	191.13	222.84
A Fence-line	86.04	0.00	236.51	224.47	95.99	189.20	162.38	236.51
A Fence-line	82.17	-14.49	224.48	153.08	149.65	145.76	153.64	224.48
A Fence-line	78.41	-28.54	280.00	127.30	88.69	168.16	152.76	280.00
A Fence-line	67.40	-38.91	201.84	118.79	148.17	166.31	219.68	219.68
A Fence-line	52.99	-44.46	195.18	243.97	185.13	162.65	209.82	243.97
A Fence-line	41.41	-49.35	131.19	163.99	140.82	219.88	205.54	219.88
A Fence-line	30.26	-52.42	209.04	210.80	175.67	246.60	174.20	246.60
A Fence-line	19.96	-54.85	209.94	187.98	219.71	179.31	234.97	234.97
A Fence-line	11.26	-63.87	252.99	188.49	213.22	202.39	235.61	252.99
A Fence-line	0.00	-62.69	242.70	184.17	167.49	215.31	194.16	242.70
A Fence-line	-10.89	-61.74	299.87	159.54	282.68	253.91	188.45	299.87
A Fence-line	-21.74	-59.72	258.12	173.57	263.96	295.97	251.85	295.97
A Fence-line	-52.96	-91.73	174.48	84.82	108.94	89.88	149.75	174.48
A Fence-line	-68.92	-82.14	113.64	224.01	196.03	153.32	138.34	224.01
A Fence-line	-77.83	-65.31	169.60	264.74	211.79	82.33	169.02	264.74
A Fence-line	-86.49	-49.94	249.12	164.61	275.19	130.09	119.97	275.19
A Fence-line	-87.75	-31.94	256.52	268.94	334.02	334.02	328.99	334.02
A Fence-line	-88.13	-15.54	470.61	696.42	547.98	554.16	547.98	696.42
A Fence-line	-84.74	0.00	757.60	867.40	565.55	703.88	565.55	867.40
A Fence-line	-80.90	14.26	1311.94	981.52	787.16	838.71	741.78	1311.94
A Fence-line	-75.97	27.65	1419.26	1716.66	1381.79	1135.41	1287.49	1716.66
A Fence-line	-70.76	40.86	3109.48	3113.92	1807.35	2335.44	2335.44	3113.92
A Fence-line	-63.92	53.64	5305.64	4076.41	4298.96	5373.70	5103.00	5373.70
A Fence-line	-59.47	70.88	4516.02	6026.57	3612.82	4519.93	1885.87	6026.57
A Fence-line	-50.37	87.24	1499.73	1355.62	1756.91	2196.14	1799.68	2196.14
A Fence-line	-35.49	97.50	1339.31	1185.38	749.95	948.31	715.05	1339.31
A Fence-line	-16.44	93.24	1215.75	738.17	684.21	916.64	972.60	1215.75
A Fence-line	0.00	88.63	1090.33	626.72	498.83	639.97	898.38	1090.33
Max A Fenceline			5305.64	6026.57	4298.96	5373.70	5103.00	6026.57

Air Modeling Output for York

B Fence-line	14.86	84.30	497.66	371.55	247.87	398.13	358.21	497.66
B Fence-line	29.28	80.44	360.74	309.08	246.06	245.97	179.28	360.74
B Fence-line	44.31	76.76	447.00	225.05	198.88	250.86	364.62	447.00
B Fence-line	60.58	72.20	316.35	316.35	319.69	220.66	253.08	319.69
B Fence-line	79.49	66.70	252.98	204.09	199.30	265.75	186.21	265.75
B Fence-line	100.72	58.15	219.66	175.31	175.72	219.13	175.31	219.66
B Fence-line	94.25	34.31	193.41	236.23	178.56	249.39	185.07	249.39
B Fence-line	89.41	15.77	255.99	256.34	175.14	175.14	206.23	256.34
B Fence-line	86.04	0.00	260.65	235.28	217.39	188.22	207.48	260.65
B Fence-line	82.17	-14.49	272.74	129.64	150.23	169.04	225.35	272.74
B Fence-line	78.41	-28.54	201.56	165.66	94.64	213.14	143.79	213.14
B Fence-line	67.40	-38.91	280.29	282.13	186.86	235.81	235.81	282.13
B Fence-line	52.99	-44.46	338.49	225.66	155.76	265.23	270.79	338.49
B Fence-line	41.41	-49.35	477.28	159.13	166.28	[illegible]	351.07	477.28
B Fence-line	30.26	-52.42	249.90	312.37	323.09	321.83	403.86	403.86
B Fence-line	19.96	-54.85	338.64	423.31	269.45	312.89	312.89	423.31
B Fence-line	11.26	-63.87	336.98	340.08	283.40	399.47	280.82	399.47
B Fence-line	0.00	-62.69	381.38	361.07	345.19	317.82	451.34	451.34
B Fence-line	-10.89	-61.74	530.64	288.47	411.74	424.51	424.51	530.64
B Fence-line	-21.74	-59.72	566.68	331.64	525.12	465.68	350.08	566.68
B Fence-line	-52.96	-91.73	298.68	149.34	205.71	193.29	246.95	298.68
B Fence-line	-68.92	-82.14	186.46	410.08	328.07	127.42	232.24	410.08
B Fence-line	-77.83	-65.31	329.29	276.46	409.77	245.17	189.45	409.77
B Fence-line	-86.49	-49.94	600.72	816.95	502.53	599.06	502.53	816.95
B Fence-line	-87.75	-31.94	1058.47	996.94	674.26	529.24	747.70	1058.47
B Fence-line	-88.13	-15.54	1113.01	1379.92	748.27	1041.34	1006.98	1379.92
B Fence-line	-84.74	0.00	1357.69	1290.06	944.32	1139.15	1259.86	1357.69
B Fence-line	-80.90	14.26	2279.37	1735.80	1790.38	1709.53	1583.57	2279.37
B Fence-line	-75.97	27.65	1612.81	1391.84	1612.81	1693.64	1625.19	1693.64
B Fence-line	-70.76	40.86	1466.88	2330.78	802.14	1748.09	1033.50	2330.78
B Fence-line	-63.92	53.64	1199.13	1519.63	656.74	1143.68	1040.12	1519.63
B Fence-line	-59.47	70.88	596.43	988.20	642.87	514.29	626.88	988.20
B Fence-line	-50.37	87.24	495.25	607.41	389.94	495.25	541.97	607.41
B Fence-line	-35.49	97.50	585.80	468.64	310.24	340.23	334.74	585.80
B Fence-line	-16.44	93.24	291.19	524.84	435.07	419.87	362.56	524.84
B Fence-line	0.00	88.63	403.41	424.59	349.08	438.25	353.83	438.25
Max B Fenceline			2279.37	2330.78	1790.38	1748.09	1625.19	2330.78

Air Modeling Output for York

C Fence-line	14.86	84.30	543.50	651.61	602.21	637.20	543.01	651.61
C Fence-line	29.28	80.44	688.00	713.24	459.46	432.91	405.33	713.24
C Fence-line	44.31	76.76	584.44	434.15	333.20	394.53	505.60	584.44
C Fence-line	60.58	72.20	493.42	493.42	493.42	381.70	394.74	493.42
C Fence-line	79.49	66.70	373.41	308.08	203.55	331.62	310.15	373.41
C Fence-line	100.72	58.15	258.52	294.09	206.82	223.20	241.95	294.09
C Fence-line	94.25	34.31	275.37	433.23	229.47	221.26	235.29	433.23
C Fence-line	89.41	15.77	354.96	291.65	282.32	233.32	298.42	354.96
C Fence-line	86.04	0.00	347.15	205.66	158.94	248.99	289.12	347.15
C Fence-line	82.17	-14.49	357.87	351.18	168.37	286.30	263.44	357.87
C Fence-line	78.41	-28.54	337.48	224.99	181.58	254.13	269.98	337.48
C Fence-line	67.40	-38.91	409.32	168.99	179.96	224.62	353.09	409.32
C Fence-line	52.99	-44.46	314.69	393.37	293.98	262.24	331.55	393.37
C Fence-line	41.41	-49.35	248.47	315.47	262.89	415.15	296.60	415.15
C Fence-line	30.26	-52.42	307.84	270.20	348.00	302.00	337.76	348.00
C Fence-line	19.96	-54.85	444.18	319.34	369.67	355.35	399.18	444.18
C Fence-line	11.26	-63.87	361.81	272.71	313.97	339.36	209.31	361.81
C Fence-line	0.00	-62.69	359.70	228.49	394.72	431.30	343.62	431.30
C Fence-line	-10.89	-61.74	437.84	262.35	265.69	427.38	314.74	437.84
C Fence-line	-21.74	-59.72	391.74	186.06	217.63	312.08	286.72	391.74
C Fence-line	-52.96	-91.73	178.67	253.15	202.52	80.39	167.22	253.15
C Fence-line	-68.92	-82.14	180.84	173.92	230.34	197.29	168.07	230.34
C Fence-line	-77.83	-65.31	339.95	474.42	310.92	356.05	310.92	474.42
C Fence-line	-86.49	-49.94	534.68	426.82	297.86	288.47	320.11	534.68
C Fence-line	-87.75	-31.94	488.29	462.01	381.68	376.26	322.26	488.29
C Fence-line	-88.13	-15.54	775.70	754.22	458.83	565.66	565.66	775.70
C Fence-line	-84.74	0.00	691.88	702.26	554.86	554.86	484.87	702.26
C Fence-line	-80.90	14.26	845.84	676.67	617.97	825.16	598.80	845.84
C Fence-line	-75.97	27.65	1092.06	987.93	987.93	971.02	790.34	1092.06
C Fence-line	-70.76	40.86	1096.99	892.58	892.58	1086.26	1086.26	1096.99
C Fence-line	-63.92	53.64	1587.18	1114.62	743.08	1087.81	952.31	1587.18
C Fence-line	-59.47	70.88	790.81	1302.36	632.65	976.77	427.79	1302.36
C Fence-line	-50.37	87.24	664.47	820.50	331.90	751.85	645.66	820.50
C Fence-line	-35.49	97.50	359.10	754.53	446.85	503.20	484.45	754.53
C Fence-line	-16.44	93.24	851.20	922.97	663.12	441.63	595.46	922.97
C Fence-line	0.00	88.63	427.20	849.68	582.17	679.74	485.14	849.68
Max C Fenceline			1587.18	1302.36	987.93	1087.81	1086.26	1587.18

Air Modeling Output for York

D Fence-line	14.86	84.30	1388.86	2300.70	1251.08	1860.50	1538.39	2300.70
D Fence-line	29.28	80.44	1171.18	1205.87	790.90	790.90	990.25	1205.87
D Fence-line	44.31	76.76	768.94	822.06	560.79	657.65	837.33	837.33
D Fence-line	60.58	72.20	553.28	563.16	486.49	450.53	507.79	563.16
D Fence-line	79.49	66.70	435.41	331.70	332.67	265.36	382.50	435.41
D Fence-line	100.72	58.15	285.98	182.79	213.26	210.49	319.88	319.88
D Fence-line	94.25	34.31	308.44	286.62	116.18	246.75	203.24	308.44
D Fence-line	89.41	15.77	296.57	197.72	152.49	225.59	237.26	296.57
D Fence-line	86.04	0.00	334.49	127.42	126.29	180.05	272.07	334.49
D Fence-line	82.17	-14.49	185.41	231.76	205.81	189.73	252.87	252.87
D Fence-line	78.41	-28.54	155.41	194.27	134.81	183.21	183.21	194.27
D Fence-line	67.40	-38.91	176.99	183.38	152.82	217.46	147.49	217.46
D Fence-line	52.99	-44.46	191.52	183.76	163.46	159.60	229.70	229.70
D Fence-line	41.41	-49.35	242.56	142.71	192.95	194.05	194.05	242.56
D Fence-line	30.26	-52.42	175.49	162.95	140.18	192.47	130.47	192.47
D Fence-line	19.96	-54.85	248.33	104.03	247.81	235.99	165.21	248.33
D Fence-line	11.26	-63.87	182.25	134.08	168.18	194.69	183.15	194.69
D Fence-line	0.00	-62.6	232.66	145.43	135.36	187.98	155.44	232.66
D Fence-line	-10.89	-61.74	189.84	89.46	102.63	234.19	126.81	234.19
D Fence-line	-21.74	-59.72	197.10	86.39	109.50	119.57	157.93	197.10
D Fence-line	-52.96	-91.73	47.28	171.04	136.46	70.77	93.64	171.04
D Fence-line	-68.92	-82.14	143.15	92.31	103.43	46.55	80.17	143.15
D Fence-line	-77.83	-65.31	115.79	107.26	158.22	117.04	92.35	158.22
D Fence-line	-86.49	-49.94	152.25	231.13	228.92	199.33	228.92	231.13
D Fence-line	-87.75	-31.94	273.45	364.85	218.76	261.36	218.76	364.85
D Fence-line	-88.13	-15.54	418.87	262.41	251.32	323.07	260.63	418.87
D Fence-line	-84.74	0.00	526.04	454.85	299.94	263.02	341.14	526.04
D Fence-line	-80.90	14.26	456.01	636.06	487.87	358.11	477.05	636.06
D Fence-line	-75.97	27.65	588.73	599.44	414.79	437.40	399.63	599.44
D Fence-line	-70.76	40.86	914.84	973.80	593.62	765.17	769.20	973.80
D Fence-line	-63.92	53.64	1298.72	1235.56	797.04	926.67	926.67	1298.72
D Fence-line	-59.47	70.88	1346.82	993.71	1089.35	1361.68	1282.40	1361.68
D Fence-line	-50.37	87.24	1924.50	1540.67	1540.67	1931.63	1931.63	1931.63
D Fence-line	-35.49	97.50	2493.20	3914.18	1330.41	2935.63	1819.32	3914.18
D Fence-line	-16.44	93.24	10069.80	8286.56	6513.78	6097.54	5754.17	10069.80
D Fence-line	0.00	88.63	4376.40	3697.16	4026.43	4376.40	3407.15	4376.40
Max D Fenceline			10069.80	8286.56	6513.78	6097.54	5754.17	10069.80

Air Modeling Output for York

E1 Fence-line	14.86	84.30	7171.78	10427.31	7143.83	8341.85	6108.30	10427.31
E1 Fence-line	29.28	80.44	4155.18	3295.52	3613.52	4264.77	3145.68	4264.77
E1 Fence-line	44.31	76.76	1412.68	2121.96	1297.21	1856.46	1475.90	2121.96
E1 Fence-line	60.58	72.20	1138.49	981.57	716.88	739.85	1030.61	1138.49
E1 Fence-line	79.49	66.70	571.97	730.75	562.25	584.60	700.34	730.75
E1 Fence-line	100.72	58.15	489.20	298.33	333.32	298.52	481.93	489.20
E1 Fence-line	94.25	34.31	470.06	487.39	278.92	387.20	387.20	487.39
E1 Fence-line	89.41	15.77	594.30	199.16	198.46	294.20	378.40	594.30
E1 Fence-line	86.04	0.00	301.88	377.36	317.87	279.90	381.48	381.48
E1 Fence-line	82.17	-14.49	175.71	237.88	198.23	331.04	276.71	331.04
E1 Fence-line	78.41	-28.54	250.06	214.28	242.64	250.06	208.38	250.06
E1 Fence-line	67.40	-38.91	253.68	230.75	224.94	202.94	288.43	288.43
E1 Fence-line	52.99	-44.46	226.42	201.35	187.70	241.04	153.64	241.04
E1 Fence-line	41.41	-49.35	267.84	116.42	289.57	298.70	198.87	298.70
E1 Fence-line	30.26	-52.42	288.89	194.95	155.69	195.85	226.32	288.89
E1 Fence-line	19.96	-54.85	212.23	107.27	133.83	291.08	176.08	291.08
E1 Fence-line	11.26	-63.87	202.50	102.15	112.50	182.84	137.63	202.50
E1 Fence-line	0.00	-62.69	207.95	103.98	160.01	152.96	174.13	207.95
E1 Fence-line	-10.89	-61.74	110.94	241.92	201.79	155.16	146.84	241.92
E1 Fence-line	-21.74	-59.72	138.25	240.56	192.45	72.24	148.34	240.56
E1 Fence-line	-52.96	-91.73	107.01	81.88	136.60	77.14	56.83	136.60
E1 Fence-line	-68.92	-82.14	116.59	163.19	172.25	143.77	172.25	172.25
E1 Fence-line	-77.83	-65.31	191.85	240.31	152.37	168.42	152.37	240.31
E1 Fence-line	-86.49	-49.94	274.92	206.19	159.97	159.76	150.60	274.92
E1 Fence-line	-87.75	-31.94	220.43	312.90	240.79	176.34	234.67	312.90
E1 Fence-line	-88.13	-15.54	251.67	295.38	154.92	187.96	183.29	295.38
E1 Fence-line	-84.74	0.00	372.08	403.35	244.13	317.51	318.38	403.35
E1 Fence-line	-80.90	14.26	450.84	485.83	299.91	364.37	364.37	485.83
E1 Fence-line	-75.97	27.65	523.58	434.99	347.99	347.99	274.71	523.58
E1 Fence-line	-70.76	40.86	514.02	344.39	411.22	514.02	516.58	516.58
E1 Fence-line	-63.92	53.64	617.75	494.20	489.33	627.81	510.54	627.81
E1 Fence-line	-59.47	70.88	661.30	708.82	642.53	708.82	600.85	708.82
E1 Fence-line	-50.37	87.24	829.67	806.08	806.08	806.08	751.40	829.67
E1 Fence-line	-35.49	97.50	1403.95	1010.24	673.49	936.27	842.37	1403.95
E1 Fence-line	-16.44	93.24	1731.25	1833.06	763.24	1752.22	1248.16	1833.06
E1 Fence-line	0.00	88.63	6118.14	5267.40	3142.46	3160.44	2448.29	6118.14
Max E1 Fenceline			7171.78	10427.31	7143.83	8341.85	6108.30	10427.31

Air Modeling Output for York

E2 Fence-line	14.86	84.30	2736.96	2264.13	1543.32	1811.30	1543.32	2736.96
E2 Fence-line	29.28	80.44	2103.23	2204.72	1552.98	1496.79	1274.94	2204.72
E2 Fence-line	44.31	76.76	1473.49	1473.49	1473.49	1287.31	1178.79	1473.49
E2 Fence-line	60.58	72.20	971.12	908.72	776.90	893.68	813.92	971.12
E2 Fence-line	79.49	66.70	502.98	777.80	450.01	673.86	545.59	777.80
E2 Fence-line	100.72	58.15	471.33	459.03	316.33	316.33	392.58	471.33
E2 Fence-line	94.25	34.31	485.50	287.01	231.29	349.15	403.63	485.50
E2 Fence-line	89.41	15.77	482.37	387.50	321.58	348.57	348.57	482.37
E2 Fence-line	86.04	0.00	567.50	188.84	201.23	294.26	416.19	567.50
E2 Fence-line	82.17	-14.49	315.85	394.81	314.08	263.21	365.95	394.81
E2 Fence-line	78.41	-28.54	180.04	248.25	206.87	340.70	273.87	340.70
E2 Fence-line	67.40	-38.91	248.94	220.28	272.41	229.87	275.35	275.35
E2 Fence-line	52.99	-44.46	352.43	183.11	267.85	283.62	281.94	352.43
E2 Fence-line	41.41	-49.35	346.36	191.52	323.84	288.79	215.90	346.36
E2 Fence-line	30.26	-52.42	276.12	205.43	256.44	296.20	278.32	296.20
E2 Fence-line	19.96	-54.85	315.98	187.19	193.97	320.17	232.20	320.17
E2 Fence-line	11.26	-63.87	245.67	122.81	134.53	268.35	129.86	268.35
E2 Fence-line	0.00	-62.69	249.52	124.76	172.20	162.83	205.76	249.52
E2 Fence-line	-10.89	-61.74	144.55	280.20	245.12	191.97	172.73	280.20
E2 Fence-line	-21.74	-59.72	172.39	282.31	225.85	87.06	177.21	282.31
E2 Fence-line	-52.96	-91.73	110.48	100.49	153.76	106.00	81.25	153.76
E2 Fence-line	-68.92	-82.14	149.45	230.11	199.79	190.31	199.79	230.11
E2 Fence-line	-77.83	-65.31	255.62	218.34	153.37	220.18	168.42	255.62
E2 Fence-line	-86.49	-49.94	295.11	309.06	214.16	147.56	231.80	309.06
E2 Fence-line	-87.75	-31.94	277.31	258.83	216.89	214.27	182.23	277.31
E2 Fence-line	-88.13	-15.54	339.62	414.96	229.83	317.10	309.00	414.96
E2 Fence-line	-84.74	0.00	432.17	471.00	294.06	353.25	353.25	471.00
E2 Fence-line	-80.90	14.26	472.31	432.11	345.68	345.68	281.61	472.31
E2 Fence-line	-75.97	27.65	502.81	332.26	402.25	502.81	485.94	502.81
E2 Fence-line	-70.76	40.86	584.86	394.42	461.55	576.93	568.28	584.86
E2 Fence-line	-63.92	53.64	845.38	683.08	694.84	643.84	568.68	845.38
E2 Fence-line	-59.47	70.88	717.54	513.29	582.29	737.79	737.79	737.79
E2 Fence-line	-50.37	87.24	1022.51	625.83	417.22	795.91	637.95	1022.51
E2 Fence-line	-35.49	97.50	639.33	933.95	381.97	750.87	526.40	933.95
E2 Fence-line	-16.44	93.24	1787.64	1448.24	945.96	868.95	736.20	1787.64
E2 Fence-line	0.00	88.63	1283.19	2164.77	1707.47	1365.97	1462.89	2164.77
Max E2 Fenceline			2736.96	2264.13	1707.47	1811.30	1543.32	2736.96

Air Modeling Output for York

F Fence-line	14.86	84.30	588.87	541.21	588.87	588.87	588.87	588.87
F Fence-line	29.28	80.44	772.81	702.56	772.81	772.81	772.81	772.81
F Fence-line	44.31	76.76	1028.33	906.10	1028.33	1028.33	1028.33	1028.33
F Fence-line	60.58	72.20	1848.11	1647.80	1848.11	1848.11	1848.11	1848.11
F Fence-line	79.49	66.70	11324.69	6911.80	5848.46	10141.18	7309.57	11324.69
F Fence-line	100.72	58.15	9879.02	9612.54	5259.14	7903.21	7341.63	9879.02
F Fence-line	94.25	34.31	2464.63	1613.52	1383.74	1853.72	1834.61	2464.63
F Fence-line	89.41	15.77	988.00	478.19	628.06	836.52	729.04	988.00
F Fence-line	86.04	0.00	673.43	336.72	464.81	446.15	557.51	673.43
F Fence-line	82.17	-14.49	457.30	378.64	467.36	413.03	408.80	467.36
F Fence-line	78.41	-28.54	298.43	375.68	390.90	325.35	284.04	390.90
F Fence-line	67.40	-38.91	163.36	403.75	323.00	138.06	220.02	403.75
F Fence-line	52.99	-44.46	275.92	151.61	263.77	97.95	117.13	275.92
F Fence-line	41.41	-49.35	180.45	182.26	223.20	223.20	205.03	223.20
F Fence-line	30.26	-52.42	190.16	276.70	282.62	240.86	282.62	282.62
F Fence-line	19.96	-54.85	256.82	351.19	214.61	258.05	214.61	351.19
F Fence-line	11.26	-63.87	228.00	298.68	182.40	209.64	182.40	298.68
F Fence-line	0.00	-62.69	274.65	171.59	164.79	213.04	171.59	274.65
F Fence-line	-10.89	-61.74	269.38	217.71	147.24	137.07	163.28	269.38
F Fence-line	-21.74	-59.72	192.97	253.50	189.03	129.19	190.12	253.50
F Fence-line	-52.96	-91.73	118.11	167.68	127.70	90.79	125.76	167.68
F Fence-line	-68.92	-82.14	114.91	125.29	70.75	82.23	82.15	125.29
F Fence-line	-77.83	-65.31	148.35	157.28	97.31	125.33	126.53	157.28
F Fence-line	-86.49	-49.94	146.75	162.63	102.54	121.98	121.98	162.63
F Fence-line	-87.75	-31.94	166.81	134.98	107.98	107.98	83.49	166.81
F Fence-line	-88.13	-15.54	140.71	128.69	98.06	122.57	136.72	140.71
F Fence-line	-84.74	0.00	151.04	104.89	124.91	151.04	137.82	151.04
F Fence-line	-80.90	14.26	170.24	136.19	126.38	168.05	120.27	170.24
F Fence-line	-75.97	27.65	177.82	118.55	131.32	183.49	183.49	183.49
F Fence-line	-70.76	40.86	262.68	144.68	168.07	195.84	197.01	262.68
F Fence-line	-63.92	53.64	212.31	214.37	214.37	215.42	171.49	215.42
F Fence-line	-59.47	70.88	223.03	224.89	190.71	211.41	216.12	224.89
F Fence-line	-50.37	87.24	239.80	170.58	190.50	244.53	244.53	244.53
F Fence-line	-35.49	97.50	280.24	265.58	280.24	280.24	280.24	280.24
F Fence-line	-16.44	93.24	353.29	326.07	353.29	353.29	353.29	353.29
F Fence-line	0.00	88.63	453.02	416.52	453.02	453.02	453.02	453.02
Max F Fenceline			11324.69	9612.54	5848.46	10141.18	7341.63	11324.69

Air Modeling Output for York

G1 Fence-line	14.86	84.30	1625.49	1368.99	1300.39	1625.49	948.97	1625.49
G1 Fence-line	29.28	80.44	1855.64	2301.35	2879.06	2303.24	2221.28	2879.06
G1 Fence-line	44.31	76.76	3149.62	3752.69	2211.36	3002.15	1591.54	3752.69
G1 Fence-line	60.58	72.20	2767.75	1887.22	1435.82	1717.53	2307.41	2767.75
G1 Fence-line	79.49	66.70	1337.49	1159.48	1069.99	1260.80	1074.65	1337.49
G1 Fence-line	100.72	58.15	669.82	1062.29	558.18	539.10	584.10	1062.29
G1 Fence-line	94.25	34.31	794.13	709.01	337.05	635.30	486.22	794.13
G1 Fence-line	89.41	15.77	944.97	369.35	394.00	508.22	778.04	944.97
G1 Fence-line	86.04	0.00	402.42	503.03	378.07	532.46	532.46	532.46
G1 Fence-line	82.17	-14.49	401.92	354.84	450.91	401.92	421.98	450.91
G1 Fence-line	78.41	-28.54	458.58	319.73	378.69	366.87	399.66	458.58
G1 Fence-line	67.40	-38.91	417.48	240.71	386.91	342.56	257.94	417.48
G1 Fence-line	52.99	-44.46	416.91	276.33	229.12	294.37	315.46	416.91
G1 Fence-line	41.41	-49.35	315.33	156.44	177.06	352.30	173.62	352.30
G1 Fence-line	30.26	-52.42	298.95	149.48	208.10	201.09	244.61	298.95
G1 Fence-line	19.96	-54.85	151.56	336.21	276.67	212.36	202.78	336.21
G1 Fence-line	11.26	-63.87	123.19	308.17	246.54	102.65	168.17	308.17
G1 Fence-line	0.00	-62.69	240.95	144.49	185.99	81.75	126.98	240.95
G1 Fence-line	-10.89	-61.74	168.97	158.83	222.31	173.48	141.81	222.31
G1 Fence-line	-21.74	-59.72	187.18	266.60	276.84	233.28	276.84	276.84
G1 Fence-line	-52.96	-91.73	175.52	233.65	140.42	166.70	140.42	233.65
G1 Fence-line	-68.92	-82.14	231.00	167.25	138.60	147.61	131.22	231.00
G1 Fence-line	-77.83	-65.31	177.26	233.85	184.68	141.80	175.38	233.85
G1 Fence-line	-86.49	-49.94	184.37	245.83	111.38	167.07	144.47	245.83
G1 Fence-line	-87.75	-31.94	289.68	280.98	171.08	210.74	210.74	289.68
G1 Fence-line	-88.13	-15.54	318.30	231.11	188.40	158.76	170.56	318.30
G1 Fence-line	-84.74	0.00	266.05	256.08	187.84	200.04	225.73	266.05
G1 Fence-line	-80.90	14.26	285.63	198.57	237.31	285.63	261.20	285.63
G1 Fence-line	-75.97	27.65	323.69	246.99	266.67	333.34	299.89	333.34
G1 Fence-line	-70.76	40.86	493.51	253.23	297.80	360.77	370.13	493.51
G1 Fence-line	-63.92	53.64	390.15	418.28	374.79	418.28	353.17	418.28
G1 Fence-line	-59.47	70.88	433.59	330.97	376.93	434.90	417.81	434.90
G1 Fence-line	-50.37	87.24	321.72	268.10	316.26	402.15	365.35	402.15
G1 Fence-line	-35.49	97.50	661.55	553.15	368.77	396.93	396.93	661.55
G1 Fence-line	-16.44	93.24	783.41	783.41	297.61	587.03	489.19	783.41
G1 Fence-line	0.00	88.63	794.90	1081.59	476.94	994.78	618.05	1081.59
Max G1 Fenceline			3149.62	3752.69	2879.06	3002.15	2307.41	3752.69

Air Modeling Output for York

G2 Fence-line	14.86	84.30	573.58	927.76	762.42	609.94	646.03	927.76
G2 Fence-line	29.28	80.44	898.85	1422.83	688.15	898.85	1116.71	1422.83
G2 Fence-line	44.31	76.76	943.85	1106.72	663.20	885.37	447.20	1106.72
G2 Fence-line	60.58	72.20	862.62	788.73	871.16	706.71	820.76	871.16
G2 Fence-line	79.49	66.70	859.13	678.74	490.93	519.44	623.32	859.13
G2 Fence-line	100.72	58.15	609.75	499.28	485.22	640.94	462.03	640.94
G2 Fence-line	94.25	34.31	580.66	1081.36	483.88	613.80	643.90	1081.36
G2 Fence-line	89.41	15.77	837.58	416.84	486.32	535.26	729.47	837.58
G2 Fence-line	86.04	0.00	813.87	630.02	542.58	572.05	572.05	813.87
G2 Fence-line	82.17	-14.49	594.08	436.95	545.60	582.00	687.10	687.10
G2 Fence-line	78.41	-28.54	314.63	415.27	346.06	582.49	508.75	582.49
G2 Fence-line	67.40	-38.91	484.39	486.75	403.66	403.66	608.43	608.43
G2 Fence-line	52.99	-44.46	606.63	339.15	569.15	510.95	379.43	606.63
G2 Fence-line	41.41	-49.35	596.56	389.00	334.13	439.02	437.11	596.56
G2 Fence-line	30.26	-52.42	435.91	223.91	258.92	423.18	295.47	435.91
G2 Fence-line	19.96	-54.85	365.50	371.68	422.36	362.22	337.45	422.36
G2 Fence-line	11.26	-63.87	130.94	455.27	359.55	205.40	252.41	455.27
G2 Fence-line	0.00	-62.69	353.76	209.49	281.23	126.60	183.64	353.76
G2 Fence-line	-10.89	-61.74	247.19	252.62	305.48	305.48	288.31	305.48
G2 Fence-line	-21.74	-59.72	360.86	519.65	374.74	402.11	374.74	519.65
G2 Fence-line	-52.96	-91.73	254.23	242.87	165.65	227.57	170.86	254.23
G2 Fence-line	-68.92	-82.14	266.34	298.50	211.55	133.17	223.88	298.50
G2 Fence-line	-77.83	-65.31	209.33	271.53	121.67	175.82	159.10	271.53
G2 Fence-line	-86.49	-49.94	329.08	327.29	189.51	245.47	245.47	329.08
G2 Fence-line	-87.75	-31.94	332.53	268.98	215.19	215.19	167.59	332.53
G2 Fence-line	-88.13	-15.54	297.37	196.73	237.89	297.37	295.10	297.37
G2 Fence-line	-84.74	0.00	318.44	254.75	257.93	327.70	271.96	327.70
G2 Fence-line	-80.90	14.26	479.53	239.77	279.92	346.19	359.65	479.53
G2 Fence-line	-75.97	27.65	372.74	389.56	341.18	389.56	341.08	389.56
G2 Fence-line	-70.76	40.86	419.47	346.49	419.47	411.47	329.17	419.47
G2 Fence-line	-63.92	53.64	449.16	453.53	453.53	453.53	438.36	453.53
G2 Fence-line	-59.47	70.88	503.81	274.84	183.23	437.27	331.98	503.81
G2 Fence-line	-50.37	87.24	423.43	438.11	148.96	372.40	289.30	438.11
G2 Fence-line	-35.49	97.50	372.30	623.59	297.84	467.69	199.31	623.59
G2 Fence-line	-16.44	93.24	726.65	542.13	410.03	392.86	334.23	726.65
G2 Fence-line	0.00	88.63	631.62	788.77	313.87	666.07	588.18	788.77
Max G2 Fenceline			943.85	1422.83	871.16	898.85	1116.71	1422.83

Air Modeling Output for York

G3 Fence-line	14.86	84.30	747.38	832.36	597.90	747.38	315.13	832.36
G3 Fence-line	29.28	80.44	1310.08	1263.72	577.39	776.47	529.44	1310.08
G3 Fence-line	44.31	76.76	794.05	1031.36	1263.80	1011.04	1012.00	1263.80
G3 Fence-line	60.58	72.20	1493.71	2209.21	1194.97	1260.63	1646.72	2209.21
G3 Fence-line	79.49	66.70	1474.28	1138.99	1179.42	1293.08	958.08	1474.28
G3 Fence-line	100.72	58.15	1612.42	879.57	1122.43	806.21	1147.00	1612.42
G3 Fence-line	94.25	34.31	1790.08	1997.43	1236.66	1236.66	1498.95	1997.43
G3 Fence-line	89.41	15.77	1855.52	1196.72	981.60	1422.80	1436.06	1855.52
G3 Fence-line	86.04	0.00	917.79	1072.42	893.68	1367.25	920.99	1367.25
G3 Fence-line	82.17	-14.49	1037.82	598.41	812.93	830.26	830.26	1037.82
G3 Fence-line	78.41	-28.54	795.41	377.48	780.11	733.57	520.07	795.41
G3 Fence-line	67.40	-38.91	610.49	363.24	374.06	623.94	447.95	623.94
G3 Fence-line	52.99	-44.46	473.43	292.89	409.94	377.99	405.86	473.43
G3 Fence-line	41.41	-49.35	236.88	537.20	429.76	176.93	299.94	537.20
G3 Fence-line	30.26	-52.42	385.86	205.09	345.53	141.49	172.07	385.86
G3 Fence-line	19.96	-54.85	258.73	270.55	334.73	334.73	328.41	334.73
G3 Fence-line	11.26	-63.87	245.49	301.55	349.06	296.95	349.06	349.06
G3 Fence-line	0.00	-62.69	347.69	461.39	278.15	329.16	278.15	461.39
G3 Fence-line	-10.89	-61.74	428.38	274.89	257.03	312.28	259.14	428.38
G3 Fence-line	-21.74	-59.72	372.54	392.17	272.77	186.27	294.13	392.17
G3 Fence-line	-52.96	-91.73	202.34	245.39	178.18	115.24	184.04	245.39
G3 Fence-line	-68.92	-82.14	162.52	185.79	99.22	116.97	117.84	185.79
G3 Fence-line	-77.83	-65.31	238.15	222.41	145.70	166.81	177.18	238.15
G3 Fence-line	-86.49	-49.94	246.12	179.95	144.54	124.37	133.56	246.12
G3 Fence-line	-87.75	-31.94	196.51	184.93	132.29	155.11	177.12	196.51
G3 Fence-line	-88.13	-15.54	209.26	142.38	168.97	186.22	162.56	209.26
G3 Fence-line	-84.74	0.00	227.13	155.11	180.59	225.74	217.77	227.13
G3 Fence-line	-80.90	14.26	327.79	163.90	193.49	238.35	245.84	327.79
G3 Fence-line	-75.97	27.65	237.37	259.19	256.03	263.52	204.82	263.52
G3 Fence-lin	-70.76	40.86	272.24	280.32	222.53	259.30	275.92	280.32
G3 Fence-line	-63.92	53.64	299.93	227.39	256.83	302.26	291.04	302.26
G3 Fence-line	-59.47	70.88	274.20	243.52	274.20	274.20	274.20	274.20
G3 Fence-line	-50.37	87.24	399.20	240.01	160.01	310.23	249.44	399.20
G3 Fence-line	-35.49	97.50	345.95	345.95	146.71	241.08	200.90	345.95
G3 Fence-line	-16.44	93.24	336.07	386.56	180.62	451.56	283.90	451.56
G3 Fence-line	0.00	88.63	439.90	664.72	219.90	498.54	335.16	664.72
Max G3 Fenceline			1855.52	2209.21	1263.80	1422.80	1646.72	2209.21

Air Modeling Output for York

G4 Fence-line	14.86	84.30	1113.36	1100.61	477.07	691.17	476.01	1113.36
G4 Fence-line	29.28	80.44	798.04	788.54	888.48	710.78	840.03	888.48
G4 Fence-line	44.31	76.76	872.60	712.77	950.61	1188.27	1047.12	1188.27
G4 Fence-line	60.58	72.20	1342.06	1249.93	782.62	999.95	702.77	1342.06
G4 Fence-line	79.49	66.70	1255.84	912.94	712.89	1004.67	946.11	1255.84
G4 Fence-line	100.72	58.15	938.67	938.67	938.67	749.60	750.94	938.67
G4 Fence-line	94.25	34.31	1000.18	1690.67	833.48	821.42	963.66	1690.67
G4 Fence-line	89.41	15.77	1260.36	1160.64	524.60	1008.29	822.91	1260.36
G4 Fence-line	86.04	0.00	885.49	742.81	869.24	911.79	1086.55	1086.55
G4 Fence-line	82.17	-14.49	747.20	741.96	639.01	869.45	622.67	869.45
G4 Fence-line	78.41	-28.54	728.91	533.19	606.98	583.13	666.49	728.91
G4 Fence-line	67.40	-38.91	642.87	237.63	669.16	667.79	446.11	669.16
G4 Fence-line	52.99	-44.46	497.34	243.23	300.33	618.18	342.83	618.18
G4 Fence-line	41.41	-49.35	441.65	301.71	405.24	368.44	384.31	441.65
G4 Fence-line	30.26	-52.42	203.79	527.43	421.94	193.19	281.99	527.43
G4 Fence-line	19.96	-54.85	389.85	203.48	343.09	142.70	178.10	389.85
G4 Fence-line	11.26	-63.87	253.49	215.97	325.23	200.39	150.29	325.23
G4 Fence-line	0.00	-62.69	257.08	369.15	379.98	321.57	379.98	379.98
G4 Fence-line	-10.89	-61.74	360.23	461.75	288.18	317.74	288.18	461.75
G4 Fence-line	-21.74	-59.72	449.68	320.27	269.81	295.94	258.70	449.68
G4 Fence-line	-52.96	-91.73	267.38	227.24	151.19	133.69	170.43	267.38
G4 Fence-line	-68.92	-82.14	193.91	182.15	160.12	152.90	136.61	193.91
G4 Fence-line	-77.83	-65.31	227.10	257.28	151.24	200.99	199.66	257.28
G4 Fence-line	-86.49	-49.94	262.94	230.29	153.63	172.72	172.72	262.94
G4 Fence-line	-87.75	-31.94	223.23	220.60	166.35	166.35	173.87	223.23
G4 Fence-line	-88.13	-15.54	229.18	157.61	190.64	224.01	202.12	229.18
G4 Fence-line	-84.74	0.00	256.31	181.24	266.38	257.98	243.28	257.98
G4 Fence-line	-80.90	14.26	374.4.	193.68	227.66	274.41	280.82	374.42
G4 Fence-line	-75.97	27.65	270.55	302.08	280.37	302.08	239.34	302.08
G4 Fence-line	-70.76	40.86	321.90	314.21	295.35	315.46	292.85	321.90
G4 Fence-line	-63.92	53.64	346.07	263.09	265.01	346.19	346.19	346.19
G4 Fence-line	-59.47	70.88	241.13	200.94	212.20	301.41	259.42	301.41
G4 Fence-line	-50.37	87.24	432.45	352.29	234.86	259.47	259.47	432.45
G4 Fence-line	-35.49	97.50	288.07	331.76	154.92	387.31	243.84	387.31
G4 Fence-line	-16.44	93.24	397.31	619.74	183.75	464.80	284.11	619.74
G4 Fence-line	0.00	88.63	659.03	618.79	527.22	659.03	313.34	659.03
Max G4 Fenceline			1342.06	1690.67	950.61	1188.27	1086.55	1690.67

Air Modeling Output for York

G5 Fence-line	14.86	84.30	309.85	399.59	199.79	499.49	286.18	499.49
G5 Fence-line	29.28	80.44	506.19	800.25	253.28	600.19	353.76	800.25
G5 Fence-line	44.31	76.76	807.35	655.19	645.88	807.35	443.08	807.35
G5 Fence-line	60.58	72.20	1005.22	1331.00	454.85	1127.55	903.05	1331.00
G5 Fence-line	79.49	66.70	987.70	1156.72	1271.01	1588.77	1185.24	1588.77
G5 Fence-line	100.72	58.15	1889.36	1329.12	1511.49	1108.10	1853.09	1889.36
G5 Fence-line	94.25	34.31	14820.74	7863.49	9580.10	7410.37	11246.64	14820.74
G5 Fence-line	89.41	15.77	6874.58	5649.88	5977.54	6677.80	5499.67	6874.58
G5 Fence-line	86.04	0.00	1972.00	1031.32	1293.46	2304.79	1240.92	2304.79
G5 Fence-line	82.17	-14.49	1102.45	582.53	852.49	803.24	913.48	1102.45
G5 Fence-line	78.41	-28.54	630.10	687.17	745.66	633.53	582.59	745.66
G5 Fence-line	67.40	-38.91	449.57	638.57	510.86	225.28	414.18	638.57
G5 Fence-line	52.99	-44.46	371.87	378.41	435.52	435.52	413.64	435.52
G5 Fence-line	41.41	-49.35	446.67	650.58	487.77	509.54	487.77	650.58
G5 Fence-line	30.26	-52.42	473.57	495.52	330.17	431.20	330.17	495.52
G5 Fence-line	19.96	-54.85	519.45	389.59	307.87	317.05	285.97	519.45
G5 Fence-line	11.26	-63.87	439.63	336.21	250.98	248.12	252.15	439.63
G5 Fence-line	0.00	-62.69	285.49	397.71	303.60	219.43	298.28	397.71
G5 Fence-line	-10.89	-61.74	275.46	266.83	203.56	208.88	177.89	275.46
G5 Fence-line	-21.74	-59.72	253.38	337.84	159.98	239.97	216.40	337.84
G5 Fence-line	-52.96	-91.73	145.52	194.02	85.39	128.08	107.66	194.02
G5 Fence-line	-68.92	-82.14	201.55	190.08	122.01	142.56	146.64	201.55
G5 Fence-line	-77.83	-65.31	205.64	150.36	120.68	103.39	111.45	205.64
G5 Fence-line	-86.49	-49.94	153.18	146.48	106.49	115.70	130.30	153.18
G5 Fence-line	-87.75	-31.94	156.15	106.94	129.67	151.23	135.47	156.15
G5 Fence-line	-88.13	-15.54	162.87	126.25	135.21	169.01	149.11	169.01
G5 Fence-line	-84.74	0.00	225.69	118.59	108.99	154.01	169.27	225.69
G5 Fence-line	-80.90	14.26	228.26	186.15	189.82	173.70	151.25	228.26
G5 Fence-line	-75.97	27.65	199.95	199.95	143.29	199.95	193.30	199.95
G5 Fence-line	-70.76	40.86	208.44	198.04	200.19	209.36	179.44	209.36
G5 Fence-line	-63.92	53.64	212.13	154.34	178.02	222.53	222.47	222.53
G5 Fence-line	-59.47	70.88	212.21	193.21	212.21	212.21	212.21	212.21
G5 Fence-line	-50.37	87.24	231.28	145.89	91.95	229.86	159.61	231.28
G5 Fence-line	-35.49	97.50	280.66	251.02	167.34	170.13	168.40	280.66
G5 Fence-line	-16.44	93.24	308.29	308.29	157.46	198.73	176.16	308.29
G5 Fence-line	0.00	88.63	384.70	401.01	139.00	347.49	266.61	401.01
Max G5 Fenceline			14820.74	7863.49	9580.10	7410.37	11246.64	14820.74

Air Modeling Output for York

G6 Fence-line	14.86	84.30	559.63	534.18	447.70	559.63	260.48	559.63
G6 Fence-line	29.28	80.44	926.92	824.32	440.27	494.59	346.01	926.92
G6 Fence-line	44.31	76.76	690.50	838.68	449.71	482.45	528.66	838.68
G6 Fence-line	60.58	72.20	571.89	1061.36	753.46	941.82	729.22	1061.36
G6 Fence-line	79.49	66.70	1161.25	726.14	834.86	834.86	834.86	1161.25
G6 Fence-line	100.72	58.15	1206.55	689.26	721.01	882.41	965.24	1206.55
G6 Fence-line	94.25	34.31	2952.10	2453.20	2603.37	1745.50	1962.56	2952.10
G6 Fence-line	89.41	15.77	3977.04	2292.55	1995.60	2880.15	3242.32	3977.04
G6 Fence-line	86.04	0.00	1902.12	2137.36	1781.13	2689.78	1793.19	2689.78
G6 Fence-line	82.17	-14.49	1507.77	1022.32	1365.70	1293.04	910.47	1507.77
G6 Fence-line	78.41	-28.54	1093.69	746.90	585.90	738.64	882.38	1093.69
G6 Fence-line	67.40	-38.91	681.76	333.30	434.85	386.23	583.02	681.76
G6 Fence-line	52.99	-44.46	472.09	653.74	522.99	233.34	427.33	653.74
G6 Fence-line	41.41	-49.35	411.66	384.95	497.34	381.11	317.28	497.34
G6 Fence-line	30.26	-52.42	392.71	609.35	556.85	510.24	556.85	609.35
G6 Fence-line	19.96	-54.85	499.09	580.38	379.28	469.54	379.28	580.38
G6 Fence-line	11.26	-63.87	469.95	413.31	283.56	404.28	309.09	469.95
G6 Fence-line	0.00	-62.69	492.51	438.08	288.60	246.26	328.56	492.51
G6 Fence-line	-10.89	-61.74	333.84	410.31	331.06	267.07	307.73	410.31
G6 Fence-line	-21.74	-59.72	273.42	354.39	160.19	230.25	206.98	354.39
G6 Fence-line	-52.96	-91.73	180.35	186.57	119.20	131.81	124.38	186.57
G6 Fence-line	-68.92	-82.14	221.06	208.58	140.57	170.80	177.40	221.06
G6 Fence-line	-77.83	-65.31	238.97	178.74	137.00	132.44	135.87	238.97
G6 Fence-line	-86.49	-49.94	178.59	170.46	123.85	135.58	153.32	178.59
G6 Fence-line	-87.75	-31.94	188.03	127.43	151.93	167.64	146.26	188.03
G6 Fence-line	-88.13	-15.54	198.44	132.29	156.58	195.72	192.20	198.44
G6 Fence-line	-84.74	0.00	280.17	146.47	171.70	206.32	210.12	280.17
G6 Fence-line	-80.90	14.26	198.17	220.28	215.59	222.86	172.47	222.86
G6 Fence-line	-75.97	27.65	221.71	233.15	177.37	223.87	233.98	233.98
G6 Fence-line	-70.76	40.86	245.48	193.05	226.12	241.32	221.27	245.48
G6 Fence-line	-63.92	53.64	259.42	258.27	258.27	258.27	245.58	259.42
G6 Fence-line	-59.47	70.88	199.36	166.13	110.37	249.20	166.05	249.20
G6 Fence-line	-50.37	87.24	324.76	259.85	173.23	194.85	194.85	324.76
G6 Fence-line	-35.49	97.50	262.87	279.51	101.83	254.58	189.17	279.51
G6 Fence-line	-16.44	93.24	209.62	320.37	133.11	332.77	183.07	332.77
G6 Fence-line	0.00	88.63	358.90	584.18	203.98	438.14	235.68	584.18
Max G6 Fenceline			3977.04	2453.20	2603.37	2880.15	3242.32	3977.04

Air Modeling Output for York

G7 Fence-line	14.86	84.30	287.93	556.38	364.02	291.21	356.77	556.38
G7 Fence-line	29.28	80.44	407.10	400.41	406.25	507.81	488.52	507.81
G7 Fence-line	44.31	76.76	642.14	513.72	406.75	348.43	366.94	642.14
G7 Fence-line	60.58	72.20	350.58	681.07	431.07	544.86	359.23	681.07
G7 Fence-line	79.49	66.70	447.29	503.12	485.71	480.49	420.74	503.12
G7 Fence-line	100.72	58.15	467.57	405.49	323.28	306.63	229.67	467.57
G7 Fence-line	94.25	34.31	861.66	731.77	788.36	479.44	585.42	861.66
G7 Fence-line	89.41	15.77	911.56	923.55	729.25	822.24	794.98	923.55
G7 Fence-line	86.04	0.00	1035.03	1097.99	751.25	878.39	1119.54	1119.54
G7 Fence-line	82.17	-14.49	1006.31	890.63	466.97	824.19	606.41	1006.31
G7 Fence-line	78.41	-28.54	1364.80	450.51	548.60	701.65	987.69	1364.80
G7 Fence-line	67.40	-38.91	734.09	834.93	695.78	1047.74	698.50	1047.74
G7 Fence-line	52.99	-44.46	881.85	737.18	754.29	887.76	584.69	887.76
G7 Fence-line	41.41	-49.35	941.76	558.10	581.52	1006.35	703.40	1006.35
G7 Fence-line	30.26	-52.42	734.81	530.02	685.86	618.43	639.60	734.81
G7 Fence-line	19.96	-54.85	630.25	683.03	563.52	290.70	483.02	683.03
G7 Fence-line	11.26	-63.87	508.24	364.32	549.20	267.03	263.39	549.20
G7 Fence-line	0.00	-62.69	494.93	752.34	647.02	616.74	647.02	752.34
G7 Fence-line	-10.89	-61.74	758.26	499.71	454.96	587.71	472.47	758.26
G7 Fence-line	-21.74	-59.72	566.98	716.94	533.01	367.34	537.71	716.94
G7 Fence-line	-52.96	-91.73	259.46	368.58	283.31	207.57	276.44	368.58
G7 Fence-line	-68.92	-82.14	266.96	355.95	172.34	258.51	238.57	355.95
G7 Fence-line	-77.83	-65.31	352.76	302.10	202.27	226.57	226.57	352.76
G7 Fence-line	-86.49	-49.94	259.25	236.72	186.30	232.88	256.62	259.25
G7 Fence-line	-87.75	-31.94	290.39	232.31	212.51	284.32	201.94	290.39
G7 Fence-line	-88.13	-15.54	398.99	201.48	220.10	282.97	299.25	398.99
G7 Fence-line	-84.74	0.00	299.51	317.99	281.09	317.99	271.62	317.99
G7 Fence-line	-80.90	14.26	331.24	298.62	331.24	335.05	268.04	335.05
G7 Fence-line	-75.97	27.65	342.00	322.10	322.10	322.10	311.69	342.00
G7 Fence-line	-70.76	40.86	239.84	199.87	232.05	299.80	272.23	299.80
G7 Fence-line	-63.92	53.64	483.28	318.98	212.65	343.68	289.97	483.28
G7 Fence-line	-59.47	70.88	323.42	334.81	113.02	282.55	220.89	334.81
G7 Fence-line	-50.37	87.24	256.90	421.40	149.68	316.05	165.19	421.40
G7 Fence-line	-35.49	97.50	347.90	261.31	213.41	238.61	186.65	347.90
G7 Fence-line	-16.44	93.24	391.87	502.52	138.71	403.17	312.15	502.52
G7 Fence-line	0.00	88.63	374.62	386.15	348.66	278.93	358.26	386.15
Max G7 Fenceline			1364.80	1097.99	788.36	1047.74	1119.54	1364.80

Air Modeling Output for York

G8 Fence-line	14.86	84.30	263.79	404.73	351.46	281.17	291.46	404.73
G8 Fence-line	29.28	80.44	301.43	333.66	389.46	486.82	361.71	486.82
G8 Fence-line	44.31	76.76	504.78	694.60	403.82	361.10	495.59	694.60
G8 Fence-line	60.58	72.20	530.40	280.17	366.34	366.34	366.34	530.40
G8 Fence-line	79.49	66.70	441.14	333.93	422.93	200.36	539.29	539.29
G8 Fence-line	100.72	58.15	501.13	307.01	259.42	383.23	400.90	501.13
G8 Fence-line	94.25	34.31	665.18	591.34	466.48	400.18	318.95	665.18
G8 Fence-line	89.41	15.77	1234.07	853.1[illegible]	993.92	617.04	834.29	1234.07
G8 Fence-line	86.04	0.00	1217.40	1142.41	973.92	1124.11	1018.70	1217.40
G8 Fence-line	82.17	-14.49	1213.61	1488.77	1158.05	1191.01	1427.67	1488.77
G8 Fence-line	78.41	-28.54	1422.63	1437.02	948.42	1189.64	1189.64	1437.02
G8 Fence-line	67.40	-38.91	1178.96	1473.70	934.08	1197.94	1197.94	1473.70
G8 Fence-line	52.99	-44.46	1679.94	1085.88	1541.85	1388.97	1027.90	1679.94
G8 Fence-line	41.41	-49.35	1278.13	596.95	794.09	939.99	1008.10	1278.13
G8 Fence-line	30.26	-52.42	924.64	1101.28	881.02	486.23	747.73	1101.28
G8 Fence-line	19.96	-54.85	769.22	1074.57	1119.84	935.46	1119.84	1119.84
G8 Fence-line	11.26	-63.87	782.24	1116.19	800.73	859.25	800.73	1116.19
G8 Fence-line	0.00	-62.69	1016.94	807.51	577.44	576.95	605.63	1016.94
G8 Fence-line	-10.89	-61.74	669.53	660.41	569.05	529.55	495.31	669.53
G8 Fence-line	-21.74	-59.72	659.41	762.90	437.94	588.34	579.90	762.90
G8 Fence-line	-52.96	-91.73	286.90	382.54	173.74	260.61	226.27	382.54
G8 Fence-line	-68.92	-82.14	332.58	359.67	222.51	269.75	269.75	359.67
G8 Fence-line	-77.83	-65.31	276.32	265.36	194.27	208.68	236.14	276.32
G8 Fence-line	-86.49	-49.94	263.97	209.80	197.51	243.80	175.98	263.97
G8 Fence-line	-87.75	-31.94	358.76	186.56	180.72	246.60	269.07	358.76
G8 Fence-line	-88.13	-15.54	255.67	285.32	264.59	285.32	226.03	285.32
G8 Fence-line	-84.74	0.00	290.41	274.39	283.22	293.46	247.23	293.46
G8 Fence-line	-80.90	14.26	301.03	258.30	258.30	288.98	288.98	301.03
G8 Fence-line	-75.97	27.65	251.49	215.03	251.49	251.49	251.49	251.49
G8 Fence-line	-70.76	40.86	353.19	192.03	128.02	304.47	232.64	353.19
G8 Fence-line	-63.92	53.64	278.03	278.03	185.35	200.18	166.20	278.03
G8 Fence-line	-59.47	70.88	166.83	223.26	111.63	279.08	157.71	279.08
G8 Fence-line	-50.37	87.24	236.06	336.91	188.85	252.68	92.83	336.91
G8 Fence-line	-35.49	97.50	343.78	268.72	182.17	161.23	137.31	343.78
G8 Fence-line	-16.44	93.24	264.70	370.31	109.28	323.53	260.57	370.31
G8 Fence-line	0.00	88.63	297.54	306.76	271.81	217.45	282.36	306.76
Max G8 Fenceline			1679.94	1488.77	1541.85	1388.97	1427.67	1679.94

Air Modeling Output for York

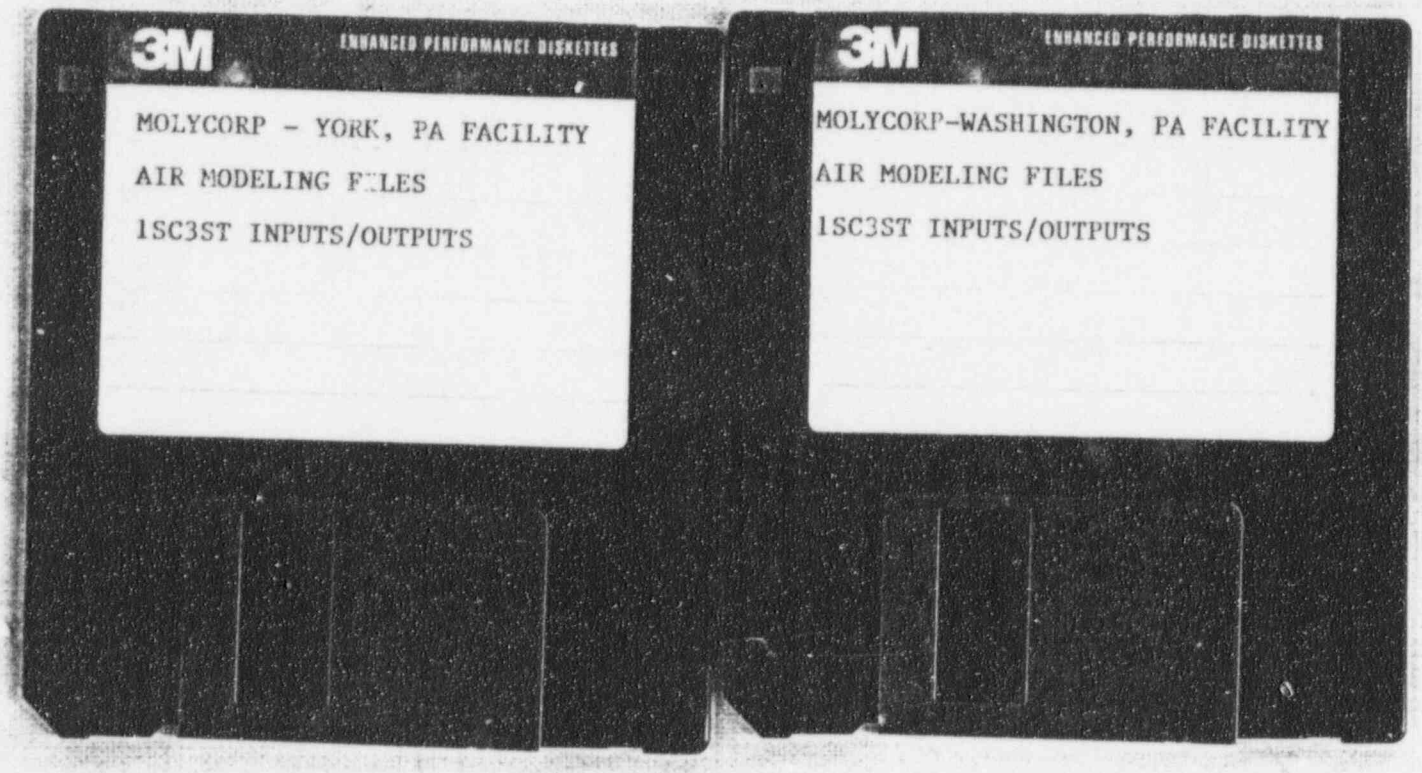
G9 Fence-line	14.86	84.30	361.63	452.04	165.34	374.03	333.55	452.04
G9 Fence-line	29.28	80.44	327.72	420.66	519.67	415.74	407.70	519.67
G9 Fence-line	44.31	76.76	285.19	571.11	421.97	527.46	398.05	571.11
G9 Fence-line	60.58	72.20	627.08	902.75	501.67	493.20	660.19	902.75
G9 Fence-line	79.49	66.70	594.71	637.89	391.33	510.32	286.68	637.89
G9 Fence-line	100.72	58.15	500.63	542.27	536.50	511.71	458.97	542.27
G9 Fence-line	94.25	34.31	1007.27	1076.01	753.56	805.81	641.75	1076.01
G9 Fence-line	89.41	15.77	2278.71	1438.40	1718.01	1139.36	1586.79	2278.71
G9 Fence-line	86.04	0.00	1915.79	3459.43	1596.49	2040.12	2053.31	3459.43
G9 Fence-line	82.17	-14.49	2651.11	1957.27	1767.41	1812.48	1998.44	2651.11
G9 Fence-line	78.41	-28.54	1537.21	1566.93	1305.77	1872.58	1281.01	1872.58
G9 Fence-line	67.40	-38.91	1327.18	805.55	1467.91	1563.08	1201.27	1563.08
G9 Fence-line	52.99	-44.46	782.03	1171.25	1095.49	889.79	751.64	1171.25
G9 Fence-line	41.41	-49.35	776.75	660.28	886.98	496.90	460.53	886.98
G9 Fence-line	30.26	-52.42	768.23	1133.18	898.43	901.89	898.43	1133.18
G9 Fence-line	19.96	-54.85	1041.72	687.34	625.03	751.77	625.90	1041.72
G9 Fence-line	11.26	-63.87	816.34	579.72	489.80	544.93	472.36	816.34
G9 Fence-line	0.00	-62.69	530.00	678.26	538.48	424.00	508.70	678.26
G9 Fence-line	-10.89	-61.74	447.72	596.96	268.56	402.84	347.35	596.96
G9 Fence-line	-21.74	-59.72	563.00	528.13	344.30	396.10	419.91	563.00
G9 Fence-line	-52.96	-91.73	241.40	321.86	158.82	237.29	222.46	321.86
G9 Fence-line	-68.92	-82.14	265.23	275.54	175.81	206.65	206.65	275.54
G9 Fence-line	-77.83	-65.31	222.08	217.39	162.22	162.22	178.34	222.08
G9 Fence-line	-86.49	-49.94	216.30	150.81	172.32	185.42	160.25	216.30
G9 Fence-line	-87.75	-31.94	218.17	145.37	159.77	226.29	226.29	226.29
G9 Fence-line	-88.13	-15.54	292.19	221.07	231.20	219.14	198.93	292.19
G9 Fence-line	-84.74	0.00	238.94	238.94	146.53	240.38	240.38	240.38
G9 Fence-line	-80.90	14.26	249.44	198.81	249.44	248.51	191.03	249.44
G9 Fence-line	-75.97	27.65	253.93	238.88	238.88	238.88	230.50	253.93
G9 Fence-line	-70.76	40.86	209.49	177.00	209.49	209.49	209.61	209.61
G9 Fence-line	-63.92	53.64	295.82	162.52	107.98	269.96	198.75	295.82
G9 Fence-line	-59.47	70.88	220.22	220.22	146.81	161.29	127.12	220.22
G9 Fence-line	-50.37	87.24	137.85	204.19	97.04	242.60	132.60	242.60
G9 Fence-line	-35.49	97.50	222.38	333.62	177.90	250.22	95.45	333.62
G9 Fence-line	-16.44	93.24	274.00	253.12	219.20	274.00	180.80	274.00
G9 Fence-line	0.00	88.63	500.27	495.72	210.46	306.91	209.01	500.27
Max G9 Fenceline			2651.11	3459.43	1767.41	2040.12	2053.31	3459.43
Max Fence-line (Overall)			14820.74	10427.31	9580.10	10141.18	11246.64	14820.74

Air Modeling Output for York

	Local coord system (m)		Truck Loading (Batch Drop) 1-hr avg air conc (3 m flag) *					
Type	x	y	1985	1987	1988	1989	1990	Max
A Workers	-40.49	63.28	4196.937	2862.16	4893.662	2114.951	3147.703	4893.66
A Workers	-40.49	49.13	3363.463	4581.962	2710.061	3612.109	2910.156	5581.96
A Workers	-54.63	49.13	4103.262	4993.591	3816.525	2959.939	3745.193	4993.59
A Workers	-54.63	63.28	3718.235	3334.131	2816.168	3402.594	2400.227	3718.23
Max A Workers	---	---	4196.94	4993.59	4893.66	3612.11	3745.19	4993.59
B Workers	-39.62	22.64						
B Workers	-39.62	8.49						
B Workers	-53.76	8.49						
B Workers	-53.76	22.64						
Max B Workers	---	---						
C Workers	-15.41	37.33						
C Workers	-15.41	23.19						
C Workers	-29.55	23.19						
C Workers	-29.55	37.33						
Max C Workers	---	---						
D Workers	-12.38	87.05						
D Workers	-12.38	72.91						
D Workers	-26.53	72.91						
D Workers	-26.53	87.05						
Max D Workers	---	---						
E1 Workers	17.01	79.27						
E1 Workers	17.01	65.13						
E1 Workers	2.87	65.13						
E1 Workers	2.87	79.27						
Max E1 Workers	---	---						
E2 Workers	14.42	64.57						
E2 Workers	14.42	50.43						
E2 Workers	0.28	50.43						
E2 Workers	0.28	64.57						
Max E2 Workers	---	---						
F Workers	96.57	68.03						
F Workers	96.57	53.89						
F Workers	82.42	53.89						
F Workers	82.42	68.03						
Max F Workers	---	---						
G1 Workers	43.82	62.41						
G1 Workers	43.82	48.27						
G1 Workers	29.68	48.27						
G1 Workers	29.68	62.41						
Max G1 Workers	---	---						
G2 Workers	36.04	36.47						
G2 Workers	36.04	22.33						
G2 Workers	21.90	22.33						
G2 Workers	21.90	36.47						
Max G2 Workers	---	---						
G3 Workers	65.87	40.36						
G3 Workers	65.87	26.22						
G3 Workers	51.73	26.22						
G3 Workers	51.73	40.36						
Max G3Workers	---	---						
G4 Workers	54.63	37.77						
G4 Workers	54.63	23.63						
G4 Workers	40.49	23.63						
G4 Workers	40.49	37.77						
Max G4 Workers	---	---						
G5 Workers	90.95	34.31						
G5 Workers	90.95	20.17						
G5 Workers	76.80	20.17						
G5 Workers	76.80	34.31						
Max G5 Workers	---	---						

ATTACHMENT 3

ISCST3 INPUT AND OUTPUT ON DISK


3M
ENHANCED PERFORMANCE DISKETTES
MOLYCORP - YORK, PA FACILITY
AIR MODELING FILES
1SC3ST INPUTS/OUTPUTS
3M
ENHANCED PERFORMANCE DISKETTES
MOLYCORP-WASHINGTON, PA FACILITY
AIR MODELING FILES
1SC3ST INPUTS/OUTPUTS

ATTACHMENT 4

MOLYCORP RADIATION PROTECTION POLICY

Molycorp, Inc. - Washington, PA

RADIATION SAFETY OFFICER'S OPERATING MANUAL (Updated 1/15/97)

The following items should be checked by the Radiation Safety Officer (RSO) at the frequency suggested.

A PERSONNEL

1. Safety Orientation of all who work with radiation producing equipment and/or radioactive material, who frequent areas in which this equipment or materials are used.

   Frequency: Initially pre-placement, prior to change in type, amount, use of affecting degree of radiation risk.

2. Personnel onitoring (film badges)

   a. Insurance by RSO to all persons who work with radiation producing equipment (x-ray diffraction equipment), and all personnel working in plant area where exposure is possible during decontamination and decommission activities.

   b. Records of results of personnel monitoring are checked and initialled by RSO upon receipt each month: reviewed quarterly - summarized annually.

   c. Exposure Investigation - without delay, RSO attempts to find cause for unusual exposure of personnel monitoring devices documented by employee's written report to be reviewed by RSO together with employee's supervisor, and recommendation made to avoid reoccurrence.

3. Notice to Employee Form NRC-3, and Pa " notice to employees" shall be posted by the RSO at such location that those employees involved with radiation equipment and/or radioactive material will be able to read the document. Check posting quarterly.

4. Personnel Protection: Will be considered in the job specific health and safety plan which will be developed by RSO in conjuction with consultants health physicist and consultant

5. Air Monitoring: will be performed anytime earth moving activities are planned in areas of potential contamination

B. CONTROL OF RADIOACTIVE MATERIALS AND RADIATION PRODUCING EQUIPMENT

1. Procurement RSO shall be notified of all requests for purchase, sale, transfer or disposal of any radioactive materials or any electrical equipment which is known to, or suspected of being capable of producing ionizing radiation. RSO shall immediately check to assure company complies with regulations of US-NRC and Pa. concerning registration and license restrictions. Copies of purchase orders, bills of lading shall be filed with RSO.

2. Posting and Labeling RSO shall monitor all shipments (in and/or out of Molycorp) to assure compliance with US-NRC and US-DOT regulations relative to proper labeling of contents, posting of areas and placarding of vehicle.

3. Radiation Survey

   a. Weekly physical inspection shall be conducted by the RSO of the integrity of the licensed material pile, cover, fence and signs. International Technology Corporation shall conduct a quarterly radiological survey of all areas where radioactive materials are stored. International Technology Corporation shall conduct annual inspection of x-ray equipment. More frequent inspections or surveys shall be performed if personnel monitoring indicates a potential problem. Documentation of all surveys shall be kept on file by RSO.

   b. The RSO shall make certain that exposure to employees and the public shall not exceed current permissable levels and that licensed radioactive materials are stored in accordance with applicable regulations and the conditions of the company's license.

   c. Emergency Survey RSO shall monitor without delay an area suspect of causing or threatening to cause radiation

risk. Results of such surveys shall be recorded and official notification made in accordance with NRC regulations.

4. Health physics instrument, procurement, calibration, and maintenance shall be under the supervision of the RSO and International Technology Corporation It is the RSO's responsibility to maintain a sufficient number of portabl radiation survey instruments in working condition to monitor accuratel (± 10 %) Alpha, beta, and gamma radiation.

   a. Portable survey meters shall be calibrated annually or before use following any repair.

5. Training The RSO shall provide radiation safety orientation for all employees whose jobs may involve working with radiation producing equipment. He will present factual information concerning the nature of the radiation risks and methods of assuring that the control radiation risks and methods are effective. The RSO will also inform employees of the availability of sources of additional pertinent information including the following:

   a. Molycorp Radiological Safety Procedures Manual
   b. NRC regulations

C. RECORDS

1. Radiation Records and files shall be maintained for or by the RSO in an accurate orderly manner, readily available for inspection by authorized federal, state, and company officials. Among those files and records maintained for or by the RSO shall be the following:

   a. Personnel radiation monitoring: Monthly film badge reports.

   b. Radioisotope inventory: (1) shipping and receiving records. (2) source materials.

   c. Radiation survey reports: Quarterly by International Technology Corporation.

   d. Instrument calibrations: portable surbey meters by International Technology Corporation.

e. Training records: (1) employee indoctrination, safety orientation. (2) RSO training.

f. Inspection reports on file: (1) US-NRC. (2) Pa Health Dept. (3) Other.

g. Licenses and registrations: (1) US-NRC source materials. (2) x-ray producing equipment.

h. Regulation: (1) US-NRC Title 10-CFR-30, 32, 33, 34, 35, and 40. (2) US-DOT. (3) Pa regulations.