APPENDIX A

The Amalgamated Sugar Company Tier II Operating Permit/ T2-010928

Potential TAP Emissions Inventory

Potential TAPs Emission Estimates* for Selected Sources at TASCO, Nampa

Emissions estimates are based on major TAPs emission sources only (i.e., minor sources are not included)

Inputs

Source	Coal (Tons/hr)	Gas (MMSCF/hr)	Wet Pulp Through-put** (T/hr)
B&W boilers	6.4	0.126	
Riley boiler	18	0.358	
Union boiler		0.072	
South dryer			65
Center dryer			0
North dryer			0

Emissions Estimates

TAP	B&W boilers***		Riley boiler		Union boiler		South dryer		A Lime kiln	B Lime kiln	Total Emission Rate (lb/hr)	Total Emission Rate (T/yr)
	Emission Factor (lb/X****)	Emission Rate (lb/hr)	Emission Factor (lb/X****)	Emission Rate (lb/hr)	Emission Factor (lb/MMscf)	Emission Rate (lb/hr)	Emission Factor (lb/T wet pulp)	Emission Rate (lb/hr)	Emission Rate (lb/hr)*****	Emission Rate (lb/hr)*****		
Acetaldehyde	5.70E-04	7.30E-03	5.70E-04	1.03E-02			1.50E-02	9.75E-01			0.9926	4.3474
Acrolein	2.90E-04	3.71E-03	2.90E-04	5.22E-03			7.60E-03	4.94E-01			0.5029	2.2028
Ammonia******											n/a	675.30
Antimony	1.80E-05	2.30E-04	1.80E-05	3.24E-04							0.0006	0.0024
Arsenic	4.10E-04	5.25E-03	4.10E-04	7.38E-03	2.00E-04	1.44E-05			3.42E-03	4.13E-03	0.0202	0.0884
Barium	4.40E-03	1.11E-03	4.40E-03	1.58E-03	4.40E-03	3.17E-04					0.0030	0.0131
Benzene	1.30E-03	1.66E-02	1.30E-03	2.34E-02	2.10E-03	1.51E-04					0.0402	0.1760
Benzo(a)pyrene	1.20E-06	3.02E-07	1.20E-06	4.30E-07	1.20E-06	8.64E-08					0.0000	0.0000
Beryllium	2.10E-05	2.69E-04	2.10E-05	3.78E-04	1.20E-05	8.64E-07			3.63E-05	4.58E-05	0.0007	0.0032
Biphenyl	1.70E-06	2.18E-05	1.70E-06	3.06E-05							0.0001	0.0002
Bis(2-ethylhexyl) phthalate	7.30E-05	9.34E-04	7.30E-05	1.31E-03							0.0022	0.0098
Bromoform	3.90E-05	4.99E-04	3.90E-05	7.02E-04							0.0012	0.0053
Cadmium	5.10E-05	6.53E-04	5.10E-05	9.18E-04	1.10E-03	7.92E-05			1.58E-05	1.92E-05	0.0017	0.0074
Carbon disulfide	1.30E-04	1.66E-03	1.30E-04	2.34E-03							0.0040	0.0175
Chlorobenzene	2.20E-05	2.82E-04	2.20E-05	3.96E-04							0.0007	0.0030
Chloroform	5.90E-05	7.55E-04	5.90E-05	1.06E-03							0.0018	0.0080
Chromium	2.60E-04	3.33E-03	2.60E-04	4.68E-03	1.40E-03	1.01E-04			2.00E-03	2.42E-03	0.0125	0.0549
Chromium(VI)	7.90E-05	1.01E-03	7.90E-05	1.42E-03							0.0024	0.0107

Cobalt	1.00E-04	1.28E-03	1.00E-04	1.80E-03	8.40E-05	6.05E-06					0.0031	0.0135
Copper	8.50E-04	2.14E-04	8.50E-04	3.04E-04	8.50E-04	6.12E-05					0.0006	0.0025
Crotonaldehyde							2.00E-03	1.30E-01			0.1300	0.5694
Cumene	5.30E-06	6.78E-05	5.30E-06	9.54E-05							0.0002	0.0007
Cyanide	2.50E-03	3.20E-02	2.50E-03	4.50E-02							0.0770	0.3373
Diethylphthalate							9.80E-06	6.37E-04			0.0006	0.0028
Ethyl benzene	9.40E-05	1.20E-03	9.40E-05	1.69E-03							0.0029	0.0127
Ethyl chloride	4.20E-05	5.38E-04	4.20E-05	7.56E-04							0.0013	0.0057
Ethylene dichloride	4.00E-05	5.12E-04	4.00E-05	7.20E-04							0.0012	0.0054
Ethylene dibromide	1.20E-06	1.54E-05	1.20E-06	2.16E-05							0.0000	0.0002
Formaldehyde	7.50E-02	1.89E-02	7.50E-02	2.69E-02	7.50E-02	5.40E-03	7.10E-03	4.62E-01			0.5127	2.2454
Hexane	1.80E+00	4.54E-01	1.80E+00	6.44E-01	1.80E+00	1.30E-01					1.2276	5.3769
Isophrone	5.80E-04	7.42E-03	5.80E-04	1.04E-02							0.0179	0.0782
Manganese	4.90E-04	6.27E-03	4.90E-04	8.82E-03	3.80E-04	2.74E-05			2.38E-04	2.88E-04	0.0156	0.0685
Mercury	8.30E-05	1.06E-03	8.30E-05	1.49E-03	2.60E-04	1.87E-05			1.33E-03	1.63E-03	0.0055	0.0242
Methyl bromide	1.60E-04	2.05E-03	1.60E-04	2.88E-03							0.0049	0.0216
Methyl chloride	5.30E-04	6.78E-03	5.30E-04	9.54E-03							0.0163	0.0715
Methyl ethyl ketone	3.90E-04	4.99E-03	3.90E-04	7.02E-03							0.0120	0.0526
Methyl hydrazine	1.70E-04	2.18E-03	1.70E-04	3.06E-03							0.0052	0.0229
Methyl methacrylate	2.00E-05	2.56E-04	2.00E-05	3.60E-04							0.0006	0.0027
Methylene chloride	2.90E-04	3.71E-03	2.90E-04	5.22E-03							0.0089	0.0391
Molybdenum	1.10E-03	2.77E-04	1.10E-03	3.94E-04	1.10E-03	7.92E-05					0.0008	0.0033
Naphthalene	6.10E-04	1.54E-04	6.10E-04	2.18E-04	6.10E-04	4.39E-05	1.10E-04	7.15E-03			0.0076	0.0331
Nickel	2.80E-04	3.58E-03	2.80E-04	5.04E-03	2.10E-03	1.51E-04			9.58E-04	1.17E-03	0.0109	0.0478
Nitrobenzene							1.90E-05	1.24E-03			0.0012	0.0054
Pentane	2.60E+00	6.55E-01	2.60E+00	9.31E-01	2.60E+00	1.87E-01					1.7732	7.7666
Phenol	1.60E-05	2.05E-04	1.60E-05	2.88E-04			3.20E-04	2.08E-02			0.0213	0.0933
PAH (sum of compounds below):		5.61E-06		7.91E-06		8.21E-07					0.0000	0.0001
Benz(a) anthracene	1.80E-06	4.54E-07	1.80E-06	6.44E-07	1.80E-06	1.30E-07						
Benzo(a)pyrene	1.20E-06	3.02E-07	1.20E-06	4.30E-07	1.20E-06	8.64E-08						
Benzo(b) fluoranthene	1.10E-07	1.41E-06	1.10E-07	1.98E-06	1.80E-06	1.30E-07						

Benzo(k) fluoranthene	1.10E-07	1.41E-06	1.10E-07	1.98E-06	1.80E-06	1.30E-07						
Chrysene	1.00E-07	1.28E-06	1.00E-07	1.80E-06	1.80E-06	1.30E-07						
Dibenzo(a,h) anthracene	1.20E-06	3.02E-07	1.20E-06	4.30E-07	1.20E-06	8.64E-08						
Indeno(1,2,3-cd) pyrene	1.80E-06	4.54E-07	1.80E-06	6.44E-07	1.80E-06	1.30E-07						
Propion-aldehyde	3.80E-04	4.86E-03	3.80E-04	6.84E-03							0.0117	0.0513
Selenium	1.30E-03	1.66E-02	1.30E-03	2.34E-02	2.40E-05	1.73E-06					0.0400	0.1754
Tetra-chloroethylene	4.30E-05	5.50E-04	4.30E-05	7.74E-04							0.0013	0.0058
Toluene	2.40E-04	3.07E-03	2.40E-04	4.32E-03	3.40E-03	2.45E-04					0.0076	0.0334
Vinyl acetate	7.60E-06	9.73E-05	7.60E-06	1.37E-04							0.0002	0.0010
Xylene	3.70E-05	4.74E-04	3.70E-05	6.66E-04							0.0011	0.0050
Zinc	2.90E-02	7.31E-03	2.90E-02	1.04E-02	2.90E-02	2.09E-03					0.0198	0.0866
										TOTALS	5.53	699.51

*All emission factors for boilers and dryers are taken from AP-42 (5th ed.), Tables 1.1-13, 1.1-18, 1.4-3, 1.4-4, and 9.10.1.2-3. Ammonia estimates taken from Northern Ada County PM10 Maintenance Plan emissions inventory. Other estimates are taken directly from Tier I permit application.

**Per the Tier II application, emissions from the center and north dryers will be zero. Emissions from the south dryer are estimated at the current maximum throughput; however, these emissions will liekly be lowered as a part of the compliance plan.

***Emission rates in this columns have been doubled to represent two boilers operating at capacity

****lb/T of coal or lb/MMSCF of gas; whichever is applicable or greater (in the case where the pollutant is emitted by both fuels)

*****These emissions rates are daily rates averaged over a 24-hour period to derive an hourly emissions rate.

******Ammonia emissions sources include dryers, cooling ponds, carbonation vents, carbonation lime filtration, evaporation, and fugitives.

APPENDIX B

The Amalgamated Sugar Company Tier II Operating Permit/ T2-010928

Technical Memorandum for the Modeling Analysis

MEMORANDUM

TO: Steve Ogle, Idaho State Office of Technical Services

FROM: George J. Schewe, CCM, QEP, Air Quality Meteorologist under Contract C136

SUBJECT: Air Dispersion Modeling Review for the TASCO Facility Located in Nampa, Idaho

DATE: July 11, 2002

cc: Mary Anderson, Modeling Coordinator, Air Quality Division

---

1. SUMMARY:

The Amalgamated Sugar Company (TASCO) located in Nampa, Idaho submitted a Tier II application at the request of the Idaho Department of Environmental Quality (DEQ) on May 1, 2002. The title of the application was *The Amalgamated Sugar Company Nampa Facility Tier II Operating Permit Application.* The intent of the application and eventual issuance of the operating permit was to provide federally enforceable emission and permit conditions that will be part of the PM_{10} maintenance plan for Northern Ada County (currently designated non-attainment). As part of this Tier II application, TASCO submitted a dispersion modeling analysis that compared facility impacts (including background concentrations) to the National Ambient Air Quality Standards (NAAQS) for each applicable pollutant and averaging period. The modeling was performed by MFG, Inc. and is summarized in Section 6 of the Tier II application as well as fully documented in Appendix 3 of the Tier II application. On June 19 and 21, 2002 TASCO submitted additional documentation to DEQ that addressed concerns regarding grids and source characterizations used in the modeling by MFG.

The pollutants identified in the Tier II application as being subject to the requirements of modeling were particulate matter less than 10 microns (PM_{10}), carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). All averaging periods were modeled as appropriate. No toxic air pollutants (TAPs) were included in the TASCO emission calculations, and therefore no TAPs were modeled by MFG.

The dispersion modeling documentation was reviewed along with the electronic files provided by TASCO. No significant deviations from the modeling protocol submitted to DEQ in February 2002 were noted. Modeling results for the post abatement sources (after mitigation, controls added, fugitives control program initiation, etc.) showed compliance with all averaging periods for all applicable criteria pollutants under their individual NAAQS. Background concentrations were included in the estimates.

At the request of Idaho DEQ, Environmental Quality Management, Inc. (EQ) prepared an independent dispersion modeling analysis to assess the ambient air quality proposed under this same Tier II permit application. This independent modeling included all current conditions and emissions for the sugar beet processes but also included proposed changes, upgrades, and abatement programs that affect the level of emissions and sources that are operating. TASCO intends to implement these pollutant mitigation measures in phases over the next several years. The ambient air quality impact requirements under Tier II modeling in the draft State of Idaho *Air Quality Modeling Guideline* (February 2002) were followed as well as verbal guidance from DEQ to include fugitive sources at the facility. This EQ/DEQ modeling

2. TASCO/MFG MODELING REVIEW:

On behalf of TASCO, dispersion modeling was conducted by MFG, Inc. in support of a Tier II permit application for the Nampa Plant. This modeling followed the protocol proposed on February 1, 2002, amended March 1, 2002, and approved by DEQ on March 6, 2002. The following subsections review this modeling which will be hereafter called the TASCO/MFG modeling. Included in the review was modeling submitted on May 1, 2002 as part of the Tier II Permit application, a June 19, 2002 letter from Joe Huff (Plant Manager) to Steve Ogle (DEQ), and a June 21, 2002 letter from Glenn Patrick (Plant Environmental Manager) to Steve Ogle (DEQ).

2.1 Applicable Air Quality Impact Limits

The TASCO facility is located in Canyon County, Idaho which is designated an attainment or unclassifiable area for CO, SO_2, NO_x, and ozone. The area is not designated for PM_{10} but is assumed to be currently attaining the PM_{10} NAAQS. DEQ is preparing a maintenance plan for neighboring (to the east) Ada County for PM_{10} to demonstrate continued attainment. Part of that maintenance plan is to establish federally enforceable emissions and permit conditions for all potentially contributing sources. Under the State of Idaho regulatory requirements, the facility must also demonstrate that the total ambient impacts (existing sources at allowable emissions and background concentrations) for these criteria pollutants must be below the National Ambient Air Quality Standards (NAAQS). The NAAQS are listed in Table 2-1.

TABLE 2-1. APPLICABLE REGULATORY AIR QUALITY LIMITS

Pollutant	Averaging Period	NAAQS, $\mu g/m^3$ [a,b]
PM_{10}	Annual	50
	24-hour	150
CO	8-hour	10,000
	1-hour	40,000
SO_2	Annual	80
	24-hour	365
	3-hour	1,300
NO_x	Annual	100

[a]Micrograms per cubic meter
[b]IDAPA 58.01.01.577 for criteria pollutants

2.2 Background Concentrations

When this NAAQS dispersion modeling was conducted under the requirements for Tier II analysis, sources not explicitly included in the model were taken into account by adding a background concentration. The TASCO/MFG report defined background concentrations as provided by DEQ. These included Nampa monitoring data for CO, Nampa and Meridian data for PM_{10}, Boise data for NO_2, and statewide data for SO_2. Table 2-2 lists the background concentrations used in the TASCO modeling.

TABLE 2-2. AMBIENT AIR BACKGROUND CONCENTRATIONS

Pollutant	Averaging Period	Background Concentration, $\mu g/m^3$
PM_{10}	Annual	28.5
	24-hour	90
CO	8-hour	7,100
	1-hour	12,700
SO_2	Annual	18.3
	24-hour	120
	3-hour	374
NO_2	Annual	40

2.3 Modeling Impact Assessment

TASCO/MFG followed the procedures in the State of Idaho's *Air Quality Modeling Guideline* (2002) as well as the EPA's *Guideline on Air Quality Models*. As per the February 2002 modeling protocol submitted by MFG/TASCO, the ISCPRIME Model was used in the modeling to best account for the building downwash effects that were expected to occur in the near wake regions. These near wake regions exist due to the proximity of the buildings and sources to nearby ambient air, specifically, on the nearby roadways passing through portions of the facility. All regulatory default options were used in the modeling (most features and option selections in ISCPRIME are identical to ISCST3 Model, which is a "preferred" guideline model). The geographical setting surrounding the facility is primarily rural, and thus the rural land use classification was selected for use in the modeling.

The remainder of the modeling documentation provided by TASCO/MFG in the Tier II application analysis described the emission rates, source parameters, building downwash parameters, site and study area, receptor network, elevation data, meteorological data, and the results of the modeling compliance evaluation. All emissions and parameters were presented in sufficient detail in the modeling reports to allow the review of each source including the TASCO/MFG characterization of fugitive emissions. The incorporation of several proposed mitigation measures at the facility was discussed along with the changes that these measures would have on the source descriptions and characterization. The changes included: 1) eliminating emissions from the center and north dryer stacks, 2) halving the emissions from the south dryer stack (how TASCO will do this was not specified), 3) installing baghouses to control emissions from the pellet coolers, 4) implementing a fugitive dust management plan, and 5) combining the Riley boiler effluent with the B&W boilers exhaust modeled at 65 m, the GEP limit at the B&W boiler stack location.

The meteorological data set was a 5-year period from 1987 through 1991 from the Boise airport. MFG used the PCRAMMET Model to preprocess the meteorological data into the format required by ISCPRIME. At the approval of the DEQ, MFG set a minimum mixing height of 50 m. This procedure, while not standard in the EPA *Guideline on Air Quality Models*, was accepted by DEQ based on MFG's argument that lower mixing heights are unreasonable in the assessment of low level sources.

Several receptor grids were selected that followed the fence lines of the facility. Fence line receptors were at a 50-m spacing. The overall grid spacing was reasonable, with a dense grid of 50 m receptors located east of the facility. Receptors were included south of Karcher Road on TASCO property that was neither fenced or controlled access. All receptors used in the TASCO modeling were generated by MFG and shown in the modeling report. The analysis demonstrated the adequacy of the receptor spacing and extent.

Tables provided by TASCO gave details on the sources in terms of stack parameters or other information describing facility fugitive emissions. Sufficient detail concerning a description of some sources and how they were characterized as an area or volume source was given. The comparison of each fugitive emissions process to the modeled source parameters appeared reasonable and representative.

Review of the TASCO emissions in the Tier II documentation and comparison to the emissions used in the dispersion modeling files determined that the tabular values were sometimes rounded. This rounding resulted in comparisons that were not always one-to-one in magnitude of emissions. Further investigation of units conversion factors and combining of seasonal factors allowed the determination of the correct emissions to model. MFG recognized the seasonality of operations at the facility. Seasonal factors for operations and related emissions were incorporated into MFG's analysis for the fugitive emissions. No seasonal factors were included for other sources (allowable emissions were maintained throughout the year as a conservative estimate of emissions). Considering the throughput of sugarbeets, the use, storage, and handling of raw materials, and the time of year, MFG's characterization of seasonal emissions appeared reasonable.

The emissions used in the modeling of the TASCO facility are shown in Table 2-3. The stack parameters and fugitive source characterizations for each source are presented in Tables 2-4 and 2-5. Short-term allowable seasonal emission rates for fugitive dust sources are presented in Table 2-6. All emissions and parameters presented in Tables 2-3 through 2-6 were presented in TASCO's Tier II application. These tabular values were compared to all modeling files provided and found to be nearly identical. The only differences were due to rounding in the tabular summaries.

2.4 TASCO/MFG Modeling Results

The results of the TASCO/MFG modeling as displayed in the Tier II application are shown in Table 2-7. As shown, the ISCPRIME modeling demonstrated compliance with the applicable NAAQS. Confirmational modeling performed by the reviewers (presented in Section 3) indicated that the results were reasonable; the parameterization was representative of the sources, area, and transport and dispersion characteristics of the area; and the results were credible. The main concern with the modeling was that it considered all proposed mitigative measures but no timeline was given for such implementation. Current conditions modeling would have resulted in substantially higher impacts, i.e., greater than the NAAQS. Such modeling is shown in Appendix A as part of this memorandum. Several figures were included with the modeling that showed the spatial distribution of ambient air impacts for selected pollutants and averaging periods. The modeling is acceptable in its current form.

At the request of DEQ, TASCO performed dispersion modeling of the potential impacts of lead emissions from the facility. This was done simplistically from the lead emission perspective; i.e., lead emissions were assumed to be 1% of the PM_{10} emissions but conservatively from the impact perspective, 24-hour PM_{10} concentrations were prorated to the 1% lead emissions. Lead emissions were not reported in the model documentation tables but as a separate analysis discussion. The resulting 24-hour lead concentration was compared to the quarterly NAAQS for lead by TASCO. The concentrations were about 33% of the quarterly lead standard (NAAQS, 1.5 $\mu g/m^3$); thus even using this very conservative modeling methodology, compliance was demonstrated. No indication was offered in the Tier II application as to the viability of the assumption that lead emissions were 1% of all other fugitive dust emissions. Follow-up documentation from Joe Huff (Plant Manager) to Steve Ogle (DEQ) dated June 19, 2002 provided further documentation on lead emissions.

TABLE 2-3. TASCO NAMPA PLANT PROPOSED SHORT-TERM ALLOWABLE EMISSIONS

Source ID	Source Description	PM_{10}, lbs/hr	NO_x, lbs/hr	SO_2, lbs/hr	CO, lbs/hr
	Point Sources				
S-B1	B&W Boiler 1	28.4	104.6	220.5	3.2
S-B2	B&W Boiler 2	28.4	104.6	220.5	3.2
S-B3	Riley Boiler	81.3	390.0	632.5	30.0
S-B4	Union Boiler	1.6	7.2	0.0	6.0
S-D1	South Furnace Dryer	18.7	38.0	13.6	126.8
S-D2	Center Furnace Dryer	0	0	0	0
S-D3	North Furnace Dryer	0	0	0	0
S-D4	Pellet Cooler No.1	0.1	0	0	0
S-D5	Pellet Cooler No.2	0.2	0	0	0
S-D6	Pellet Cooler No.3	0.2	0	0	0
S-D7	Pellet Cooler No.4	0.2	0	0	0
S-D8	Pellet Cooler No.5	0.1	0	0	0
S-K1	Lime Kiln A	0.1	1.4	3.5	171.3
S-K2	Lime Kiln B	0.1	1.6	4.0	199.0
S-K3	Lime Kiln Building Material Handling	0.8	0	0	0
S-K4	A&B Process Slakers	1.4	0	0	0
S-W1	Drying Granulator	1.1	0	0	0
S-W2	#1 Cooling Granulator	0.3	0	0	0
S-W3	#2 Cooling Granulator	0.3	0	0	0
S-W4	Sugar Handling (Process #2)	0.3	0	0	0
S-W5	Sugar Remelt	0.0	0	0	0
S-W6	Sugar Handling (Specialties)	0.1	0	0	0
S-W7	Sugar Handling (Packaging Line)	0.2	0	0	0
S-O2	A Side Sulfur Stove	0	0	2.1	0
S-O3	B Side Sulfur Stove	0	0	2.1	0
S-O12	Carbonation Vents	0.0	0.0	0.0	1,110.7
	Area Sources				
F-D9	Coal Unloading (Railcar)	a	0	0	0
F-D10	Pulp and Pellet Storage and Loadout	a	0	0	0
F-O4	Coal Unloading (Railcar)	a	0	0	0
F-O5	Coal Storage	a	0	0	0
F-O6	Coal Loading	a	0	0	0
F-O7	Beet Hauling	a	0	0	0
F-O8	Small Vehicle Traffic on Unpaved Roads	a	0	0	0
F-O9	Lime Rock Handling	a	0	0	0
F-O10	Coke Handling	a	0	0	0

[a]The hourly emission rates for fugitive dust sources vary according to season. See Table 2-6 for the seasonal hourly emission rates.

TABLE 2-4. STACK PARAMETERS FOR POINT SOURCES AT THE TASCO NAMPA FACILITY

Stack ID	Source Description	UTM-East, m	UTM-North, m	Stack Height, m	Stack Temp., K	Stack Diameter, m	Flow Vel., m/s
PB1	B&W Boilers 1 & 2	534,391	4,828,031	75	409	3.35	7.59
PB2	B&W Boilers 1 & 2	534,391	4,828,031	75	409	3.35	7.59
PB3	Riley Boiler	534,391	4,828,031	65	427	2.13	16.00
PB4	Union Boiler	534,378	4,828,046	20	436	1.22	7.67
PD1a	South Pulp Dryer East Stack	534,401	4,828,087	23	348	3.02	2.97
PD1b	South Pulp Dryer West Stack	534,396	4,828,087	23	348	3.02	2.97
PD2a	Central Pulp Dryer East Stack	534,401	4,828,099	21	354	3.02	3.26
PD2b	Central Pulp Dryer East Stack	534,396	4,828,099	21	354	3.02	3.26
PD3	North Pulp Dryer Stack	534,400	4,828,106	28	343	2.13	3.91
PD4	Pellet Cooler No.1 Vent	534,386	4,828,129	18	322	1.07	4.49
PD5	Pellet Cooler No.2 Vent	534,389	4,828,129	18	322	1.22	4.85
PD6	Pellet Cooler No.3 Vent	534,392	4,828,129	18	322	1.22	4.85
PD7	Pellet Cooler No.4 Vent	534,395	4,828,129	18	322	1.22	4.85
PD8	Pellet Cooler No.5 Vent	534,395	4,828,126	19	322	1.22	3.26
PK1	Lime Kiln A ID Fans Vent	534,328	4,828,018	25	353	0.91	10.06
PK2	Lime Kiln B ID Fans Vent	534,328	4,828,018	25	353	0.91	10.06
PK3	Lime Kiln Dust Collector Vent	534,328	4,828,022	24	305	0.76	5.08
PK4	A&B Process Slakers Scrubbers Vent	534,338	4,828,029	2	300	0.76	5.08
P-W1	Drying Granulator Dust Vent	534,386	4,827,973	20	326	0.61	24.52
P-W2	#1 Cooling Granulator Baghouse (BH) Vent	534,394	4,827,991	16	323	0.63	8.20
P-W3	#2 Cooling Granulator Baghouse (BH) Vent	534,400	4,827,983	16	323	0.63	8.20
P-W4	Sugar Handling (Proc.#2) BH Vent	534,420	4,827,991	11	311	1.40	8.29
P-W5	Sugar Remelt BH Vent	534,395	4,827,997	10	313	0.25	2.88
P-W6	Sugar Handling (Specialties) BH Vent	534,431	4,828,004	9	311	1.07	4.06
P-W7	Sugar Handling (Packaging Line) BH	534,442	4,828,016	8	311	0.49	30.32
P-O2	A Side Sulfur Stove Tower Stack	534,333	4,827,990	17	380	0.30	5.08
P-O3	B Side Sulfur Stove Tower Stack	534,316	4,828,055	25	380	0.30	5.08
P-O12	Carbonation Vents	534,145	4,827,988	33	361	1.01	7.13

TABLE 2-5. AREA SOURCE CHARACTERSTICS FOR FUGITIVE EMISSIONS AT THE TASCO NAMPA FACILITY

Source ID	Source Description	UTM X, m	UTM Y, m	Area Length, m	Area Width, m	Angle of Rotation, degrees	Initial Ver. Dim., m	Release Height, m
F-D9	Coal Unloading (Railcar) @ [illegible]	534,350	4,828,070	15	20	0	10.9	0
F-D10	Pulp and Pellet Storage and Loadout	534,380	4,828,130	40	320	0	6.5	0
F-O4	Coal Unloading (Railcar)	534,390	4,828,470	20	20	0	6.5	0
F-O5O6a	Coal Storage/Loading	534,370	4,828,495	50	130	0	7.1	0
F-O5O6b	Coal Storage/Loading	534,430	4,828,430	80	130	0	7.1	0
F-O5O6c	Coal Storage/Loading	534,390	4,828,680	135	75	71.1	7.1	0
F-O7	Beet Hauling	533,890	4,827,940	340	200	0	4.3	0
F-O8	Vehicle Traffic on Unpaved Roads	533,740	4,828,180	430	1,310	0	4.3	0
F-O9	Lime Rock Handling	534,280	4,828,290	30	85	0	6.5	0
F-O10	Coke Handling	534,340	4,828,265	25	230	0	6.5	0

TABLE 2-6. SEASONAL EMISSIONS OF PM10 FOR ISCPRIME MODELING AT THE TASCO NAMPA FACILITY (LBS/HR)

Source ID	Source Description	Winter	Spring	Summer	Fall
F-010	F-010 Coke Handling	0.05	0.04	0.04	0.04
F-D9	F-D9 Coal Unloading (Railcar)	.6	0	0	0.2
F-04	F-04 Coal Unloading (Railcar)	0.2	0.2	0.5	0.3
F-05	F-05 Coal Storage Pile	0.3	0.5	0.5	0.4
F-06	F-06 Coal Loading to Rail Cars	0.0003	0.0005	0.0005	0.0004
F-07	F-07 Beet Hauling	0.7	0	0	0.2
F-08	F-08 Small Vehicle Traffic on Unpaved Roads (Plantwide)	0.1	0.1	0.1	0.1
F-09	F-09 Lime Rock Handling	0.2	0.1	0.1	0.1
F-D10	F-D10 Pulp Truck Loadout	0.01	0.01	0.01	0.01

TABLE 2-7. SUMMARY OF ISCPRIME MODELING RESULTS WITH PROPOSED ALLOWABLE EMISSIONS AND OPERATING CONDITIONS

Pollutant	Averaging Period	Modeled Concentration, $\mu g/m^3$	Background Concentration, $\mu g/m^3$	Total Concentration (Modeled plus Background), $\mu g/m^3$	NAAQS, $\mu g/m^3$	Percent of NAAQS
PM10	24-Hour	59.1	90	149.1	150	99
PM10	Annual	19.8	28.5	48.3	50	97
SO2	3-Hour	255	374	629	1,300	48
SO2	24-Hour	114	120	234	365	64
SO2	Annual	15.0	18.3	33.3	80	42
NOx	Annual	26.6	40	66.6	100	67
CO	1-Hour	9,262	12,700	21,962	40,000	55
CO	8-Hour	2,835	7,100	9,935	10,000	99

3. EQ/DEQ MODELING:

At the request of DEQ, EQ (subcontractor) performed confirmatory modeling to allow detailed review of the assumptions, techniques, and results provided by TASCO. The following subsections provide documentation of this modeling.

3.1 Project And Analysis Overview

This section provides a summary of the dispersion modeling analysis for the TASCO sugarbeet processing facility in Nampa, Idaho. The facility is located about 2 miles north of downtown Nampa in the Treasure Valley. The Treasure Valley can be characterized as a wide plain created by the Snake and Boise Rivers between the Owyhee and Boise Mountains. Figure 3-1 shows the area surrounding the TASCO facility.

Emissions at the facility are related to the processing and handling of sugarbeets. Processes include the boilers, pulp drying and pelletizing, pulp shipping, a lime kiln, carbon dioxide production, a sugar warehouse, shipping, and all associated handling of raw materials. This latter category of processing and related emissions considers coal storage and handling, limestone storage and handling, raw beet storage and handling, and all associated storage areas and roads in the facility. Detailed discussions of the individual processes, their emissions, and their operations (including any discussions on seasonality) are found in the May 1, 2002 document *The Amalgamated Sugar Company Nampa Facility Tier II Operating Permit Application.*

Figure 3-2 shows all buildings and sources for the facility. As shown, the facility property is bisected in the southeast quadrant of the property by the north-south running North Side Boulevard/Nampa Boulevard (name changes at the intersection) and the east-west running Karcher Road. Thus, selection of receptors around the facility fence line considered these roadways as ambient air. All large buildings and structures at the facility were considered in the modeling by using their exact locations and dimensions with regard to individual source emission release points.

A Tier II operating permit application must identify, evaluate, and document all sources of air pollutants from a facility. The Tier II application was prepared at the request of DEQ by TASCO to fulfill the requirements of the nearby Northern Ada County PM_{10} maintenance plan. To date only the boilers and pulp dryers have been permitted. The Tier II permit will establish federally enforceable permit conditions for many sources at the facility. As part of the Tier II application, the DEQ required a demonstration that the facility will not cause or contribute to an exceedance of the National Ambient Air Quality Standards (NAAQS) for each applicable criteria pollutant. The Tier II operating permit guidance in the *State of Idaho Air Quality Modeling Guideline* (February 1, 2002) was followed in any specific modeling considerations as were the U.S. EPA *Guideline on Air Quality Models.*

The remainder of this section presents the modeling methodologies and results of the ambient air impact assessment performed by EQ/DEQ for the proposed project. A summary of the methodology used in the analysis is as follows:

> Used the ISCPRIME Model (Industrial Source Complex Model, Version 3 in its short-term mode which includes the PRIME building downwash algorithms - Version 99020 - using the BeeLine software called BEEST - Version 8.6) treating all terrain in the area in the model using 30-m Digital Elevation Model (DEM) data.

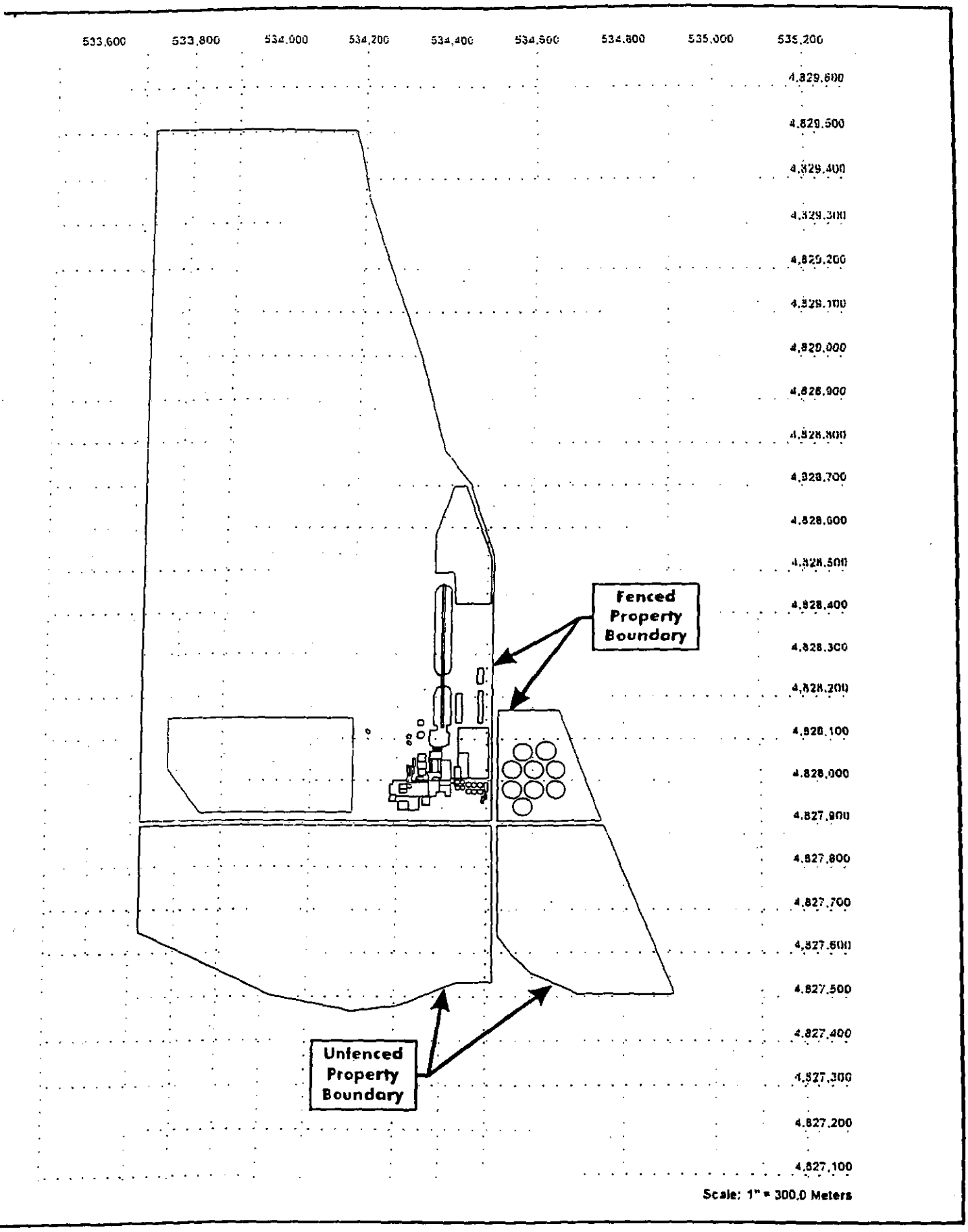


Figure 3-2. Facility Layout of the TASCO Nampa Facility

- Used the BPIP-PRIME (Building Profile Input Program) code for all downwash calculations (latest version is included in the BEEST for Windows98 BeeLine software).

- Included all modeling elements as applicable and discussed in the Idaho modeling guidance and the *Guideline on Air Quality Models*, EPA-450/2-78-027R, FR 41838, 12 August 1996.

- Will submit electronic copies of all input and output files from the models to Idaho DEQ

3.2 Source Identification And Characterization

Sources modeled in this analysis were selected from the Tier II application documentation. Both point sources and fugitive sources were presented in the modeling documentation and emission calculations. Tables 3-1 through 3-3 present the sources and emissions used in this modeling. Table 3-1 presents the individual point source and specific stack and flow characteristics. Table 3-2 presents the fugitive sources along with the associated characteristics for release of emissions. The characterization of each fugitive source focused on the storage area for specific materials as well as the handling operations from pile to hopper via truck, train car, or front-end loader. Each area where such operations take place was evaluated around the facility supplemented by source-specific emissions descriptions and calculations provided in the Tier II application by TASCO. All fugitive emissions sources were characterized independently of those by TASCO. Figure 3-3 shows all point source and fugitive source locations.

Table 3-3 presents the emissions of each criteria pollutant for each source. Sources are identified in all tables in terms of the source identifiers used in the Tier II application. Where fugitive sources consisted of multiple operations, they were further subdivided to consider separate handling or storage operations in this modeling analysis.

The emission rates used in the modeling represent a future year case rather than the current operating conditions. The changes will be implemented over the next few years and were thought to best represent the ongoing impacts on the facility after the control measures, abatement plans, and shut-downs have taken place. The changes in the operations at the facility that affect emissions include: replacement of the north and center dryers with other technologies using no fuels, thus eliminating all emissions; reduction of the south dryer to 50% of the current operation and emission levels; installing baghouses to limit emissions from the pellet coolers; combining the Riley boiler exhaust gases with the B&W boiler gases and exhausting the combined flow through the B&W stack; and application of an expanded fugitive dust management plan. These changes are reflected in the source characteristics and emissions as presented Tables 3-1 through 3-3.

Because the processing of sugarbeets is a seasonal operation, the operation of specific processes can vary throughout the year. All point sources were modeled at their allowable emissions (a conservative measure considering the seasonal factor), while all fugitive emissions were modeled considering the seasonal variations. These seasonal variations included stockpiling raw materials (coal, limestone, beets), materials handling from open storage to hoppers near the processing area, and process-related fugitives. Table 3-4 shows the seasonal emission factors as presented in the TASCO modeling.

TABLE 3-1. STACK PARAMETERS FOR POINT SOURCES AT THE TASCO NAMPA FACILITY

Source ID	Source Description	UTM-East, m	UTM-North, m	Base Elev., ft	Stack Height, ft	Stack Temp., °F	Stack Dia., ft	Flow Vel., ft/s	Flow Vol., acfm
SB1_B&W	B&W Boiler 1	534,391	4,828,031	752.6	245	277	11	12.45	71,018
SB2_B&W	B&W Boiler 2	534,391	4,828,031	752.6	245	277	11	12.45	71,018
SB3RILEY	Riley Boiler	534,391	4,828,031	752.6	213.3	309	7	52.49	121,203
SB4UNION	Union Boiler	534,378	4,828,046	752.6	66	325	4	25.15	18,963
SD1A_SE	South Furnace Dryer (Stack 1 of 2)	534,401	4,828,087	752.6	77	167	7	9.74	22,481
SD1B_SW	South Furnace Dryer (Stack 2 of 2)	534,396	4,828,087	752.6	77	167	7	9.74	22,481
SD2A_CE	Center Furnace Dryer (Stack 1 of 2)	534,401	4,828,099	752.6	69	177	7	10.70	24,716
SD2B_CE	Center Furnace Dryer (Stack 1 of 2)	534,396	4,828,099	752.6	69	177	7	10.70	24,716
SD3_N	North Furnace Dryer (Stack 1 of 1)	534,400	4,828,106	752.6	91	157	7	12.84	29,639
SD4_PC1	Pellet Cooler No.1	534,386	4,828,129	752.6	59	120	3.5	14.72	8,497
SD5_PC2	Pellet Cooler No.2	534,389	4,828,129	752.6	59	120	4	15.92	12,003
SD6_PC3	Pellet Cooler No.3	534,392	4,828,129	752.6	59	120	4	15.92	12,003
SD7_PC4	Pellet Cooler No.4	534,395	4,828,129	752.6	59	120	4	15.92	12,003
SD8_PC5	Pellet Cooler No.5	534,395	4,828,126	752.6	62	120	4	10.68	8,053
SK1_LKA	Lime Kiln A	534,328	4,827,968	752.8	82	175	3	33	13,996
SK2_LKB	Lime Kiln B	534,328	4,828,018	752.6	82	175	3	33	13,996
SK3_LKDC	Lime Kiln Building Material Handling	534,328	4,828,022	752.6	79	90	2.5	16.67	4,910
SK4_SLAK	A&B Process Slakers	534,338	4,828,031	752.6	6.6	80	2.5	16.67	4,910
SW1_DGRN	Drying Granulator	534,386	4,827,973	752.8	66	127.5	2	80.45	15,164
SW2_#1CG	#1 Cooling Granulator	534,394	4,827,991	752.8	52	122	1.86	26.89	4,360
SW3_#2CG	#2 Cooling Granulator	534,400	4,827,983	752.9	52	122	1.86	26.89	4,360
SW4_P2SH	Sugar Handling (Process #2)	534,420	4,827,991	752.8	36	100	4.60	27.18	27,103
SW5_SURE	Sugar Remelt	534,395	4,827,997	752.8	33	103	0.83	9.45	307
SW6_SPBH	Sugar Handling (Specialties)	534,431	4,828,004	752.7	30	100	3.5	13.33	7,695
SW7_PLBH	Sugar Handling (Packaging Line)	534,442	4,828,016	752.6	26	100	1.60	99.47	12,001
SO2_SSTA	A Side Sulfur Stove	534,333	4,827,990	752.6	56	225	1	16.67	786
SO3_SSTB	B Side Sulfur Stove	534,316	4,827,957	752.9	82	225	1	16.67	786
S12_CARB	Carbonation Vents	534,319	4,828,005	752.6	108	190	3.30	23.38	11,997

TABLE 3-2. AREA AND VOLUME SOURCE CHARACTERSTICS FOR FUGITIVE EMISSIONS AT THE TASCO NAMPA FACILITY

Area Sources								
Source ID	Source Description	UTM X, m	UTM Y, m	Base Elev., ft	East-West Dimension, ft	North-South Dimension, ft	Angle of Rotation, degrees	Release Height, ft
F010COKE	F-010 Coke Handling	534,343	4,828,270	752.6	80.0	544.0	0	5
FD9COAL	F-D9 Coal Unloading (Railcar)	534,362	4,828,094	752.6	16.4	32.8	0	0
F04UNLOD	F-04 Coal Unloading (Railcar)	534,397	4,828,479	752.6	10.0	10.0	0	0
F05STORS	F-05 Coal Storage Pile (South)	534,428	4,828,428	752.6	229.7	377.3	0	30
F05STORN	F-05 Coal Storage Pile (North)	534,429	4,828,539	752.6	229.7	377.3	-19	30
F07BEET	F-07 Beet Hauling	533,790	4,827,926	752.6	1312.3	738.2	0	0
F08UNPV1	F-08 Small Vehicle Traffic on Unpaved Roads (Plantwide)	534,218	4,828,036	752.6	820.2	820.2	0	1
F08UNP2A	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	533,737	4,828,202	752.6	500	50	0	1
F08UNP2B	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	533,897	4,828,202	752.6	500	50	0	1
F08UNP2C	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	534,056	4,828,201	752.6	500	50	0	1
Volume Sources								
Source ID	Source Description	UTM X, m	UTM Y, m	Base Elev., ft	Initial Horz. Dimension, ft	Initial Vert. Dimension, ft	Release Height, ft	
F09_125	F-09 Lime Rock Handling at Pile	534,311	4,828,317	752.6	18.6	13.9	15	
F09_34	F-09 Lime Rock Handling at Hopper	534,313	4,828,074	752.6	7.0	7.0	15	
FD10SHRD	F-D10 Shredded Pulp Truck Loadout	534,371	4,828,131	752.6	3.5	7.0	7.5	
FD10PELL	F-D10 Pellet Pulp Truck Loadout	534,413	4,828,467	752.6	3.5	7.0	7.5	
F06COLRR	F-06 Coal Loading to Rail Cars	534,422	4,828,604	752.6	4.7	7.0	7.5	

TABLE 3-3. ALLOWABLE EMISSIONS FOR SOURCES AT THE TASCO NAMPA FACILITY AFTER ALL CONTROLS AND ABATEMENT PROGRAMS

Source ID	Source Description	PM_{10}, lbs/hr	NO_x, lbs/hr	SO_2, lbs/hr	VOC, lbs/hr	CO, lbs/hr
Point Sources						
SB1_B&W	B&W Boiler 1	28.35	104.58	220.5	0.44	3.15
SB2_B&W	B&W Boiler 2	28.35	104.58	220.5	0.44	3.15
SB3RILEY	Riley Boiler	81.25	390.00	632.5	1.28	30
SB4UNION	Union Boiler	1.56	7.2	0.046	0.396	6
SD1A_SE	South Furnace Dryer (Stack 1 of 2)	9.36	19	6.8	2.11	63.4
SD1B_SW	South Furnace Dryer (Stack 2 of 2)	9.36	19	6.8	2.11	63.4
SD2A_CE	Center Furnace Dryer (Stack 1 of 2)	0	0	0	0	0
SD2B_CE	Center Furnace Dryer (Stack 1 of 2)	0	0	0	0	0
SD3_N	North Furnace Dryer (Stack 1 of 1)	0	0	0	0	0
SD4_PC1	Pellet Cooler No.1	0.1	0	0	0	0
SD5_PC2	Pellet Cooler No.2	0.2	0	0	0	0
SD6_PC3	Pellet Cooler No.3	0.2	0	0	0	0
SD7_PC4	Pellet Cooler No.4	0.2	0	0	0	0
SD8_PC5	Pellet Cooler No.5	0.1	0	0	0	0
SK1_LKA	Lime Kiln A	0.1	1.39	3.48	0.18	171.3
SK2_LKB	Lime Kiln B	0.117	1.61	4.04	0.2	198.95
SK3_LKDC	Lime Kiln Building Material Handling	0.792	0	0	0	0
SK4_SLAK	A&B Process Slakers	1.39	0	0	0	0
SW1_DGRN	Drying Granulator	1.15	0	0	0	0
SW2_#1CG	#1 Cooling Granulator	0.288	0	0	0	0
SW3_#2CG	#2 Cooling Granulator	0.288	0	0	0	0
SW4_P2SH	Sugar Handling (Process #2)	0.275	0	0	0	0
SW5_SURE	Sugar Remelt	0.025	0	0	0	0
SW6_SPBH	Sugar Handling (Specialties)	0.129	0	0	0	0
SW7_PLBH	Sugar Handling (Packaging Line)	0.208	0	0	0	0
SO2_SSTA	A Side Sulfur Stove	0	0	2.10	0	0
SO3_SSTB	B Side Sulfur Stove	0	0	2.10	0	0
S12_CARB	Carbonation Vents	0.66	8.99	25.56	0	1110.7
Area Sources						
F010COKE	F-010 Coke Handling	0.054	0	0	0	0
FD9COAL	F-D9 Coal Unloading (Railcar)	0.6	0	0	0	0
F04UNLOD	F-04 Coal Unloading (Railcar)	0.2	0	0	0	0
F05STORS	F-05 Coal Storage Pile (South)	0.25				
F05STORN	F-05 Coal Storage Pile (North)	0.25	0	0	0	0
F07BEET	F-07 Beet Hauling	0.7	0	0	0	0

TABLE 3-3. (continued)

Source ID	Source Description	PM_{10}, lbs/hr	NO_x, lbs/hr	SO_2, lbs/hr	VOC, lbs/hr	CO, lbs/hr
F08UNPV1	F-08 Small Vehicle Traffic on Unpaved Roads (Plantwide)	0.09	0	0	0	0
F08UNP2A	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	0.0033	0	0	0	0
F08UNP2B	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	0.0033	0	0	0	0
F08UNP2C	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	0.0033	0	0	0	0
Volume Sources						
F09_125	F-09 Lime Rock Handling at Pile	0.18	0	0	0	0
F09_34	F-09 Lime Rock Handling at Hopper	0.024	0	0	0	0
FD10SHRD	F-D10 Shredded Pulp Truck Loadout	0.005	0	0	0	0
FD10PELL	F-D10 Pellet Pulp Truck Loadout	0.0096	0	0	0	0
F06COLRR	F-06 Coal Loading to Rail Cars	0.0005	0	0	0	0

TABLE 3-4. SEASONAL ADJUSTMENT FACTORS FOR ISCPRIME MODELING AT THE TASCO NAMPA FACILITY

Source ID	Source Description	Winter	Spring	Summer	Fall
F010COKE	F-010 Coke Handling	1.0	0.74	0.74	0.74
FD9COAL	F-D9 Coal Unloading (Railcar)	1.0	0	0	0.3333
F04UNLOD	F-04 Coal Unloading (Railcar)	1.0	1.0	2.5	1.5
F05STORS	F-05 Coal Storage Pile (South)	0.6	1.0	1.0	0.8
F05STORN	F-05 Coal Storage Pile (North)	0.6	1.0	1.0	0.8
F07BEET	F-07 Beet Hauling	1.0	0	0	0.29
F08UNPV1	F-08 Small Vehicle Traffic on Unpaved Roads (Plantwide)	1.0	1.0	1.0	1.0
F08UNP2A	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	1.0	1.0	1.0	1.0
F08UNP2B	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	1.0	1.0	1.0	1.0
F08UNP2C	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	1.0	1.0	1.0	1.0
F09_125	F-09 Lime Rock Handling at Pile	1.0	0.5	0.5	0.5
F09_34	F-09 Lime Rock Handling at Hopper	1.0	0.5	0.5	0.5
FD10SHRD	F-D10 Shredded Pulp Truck Loadout	1.0	1.0	1.0	1.0
FD10PELL	F-D10 Pellet Pulp Truck Loadout	1.0	1.0	1.0	1.0
F06COLRR	F-06 Coal Loading to Rail Cars	0.6	1.0	1.0	0.8

Note: Used as scaling factors in ISCPRIME model.

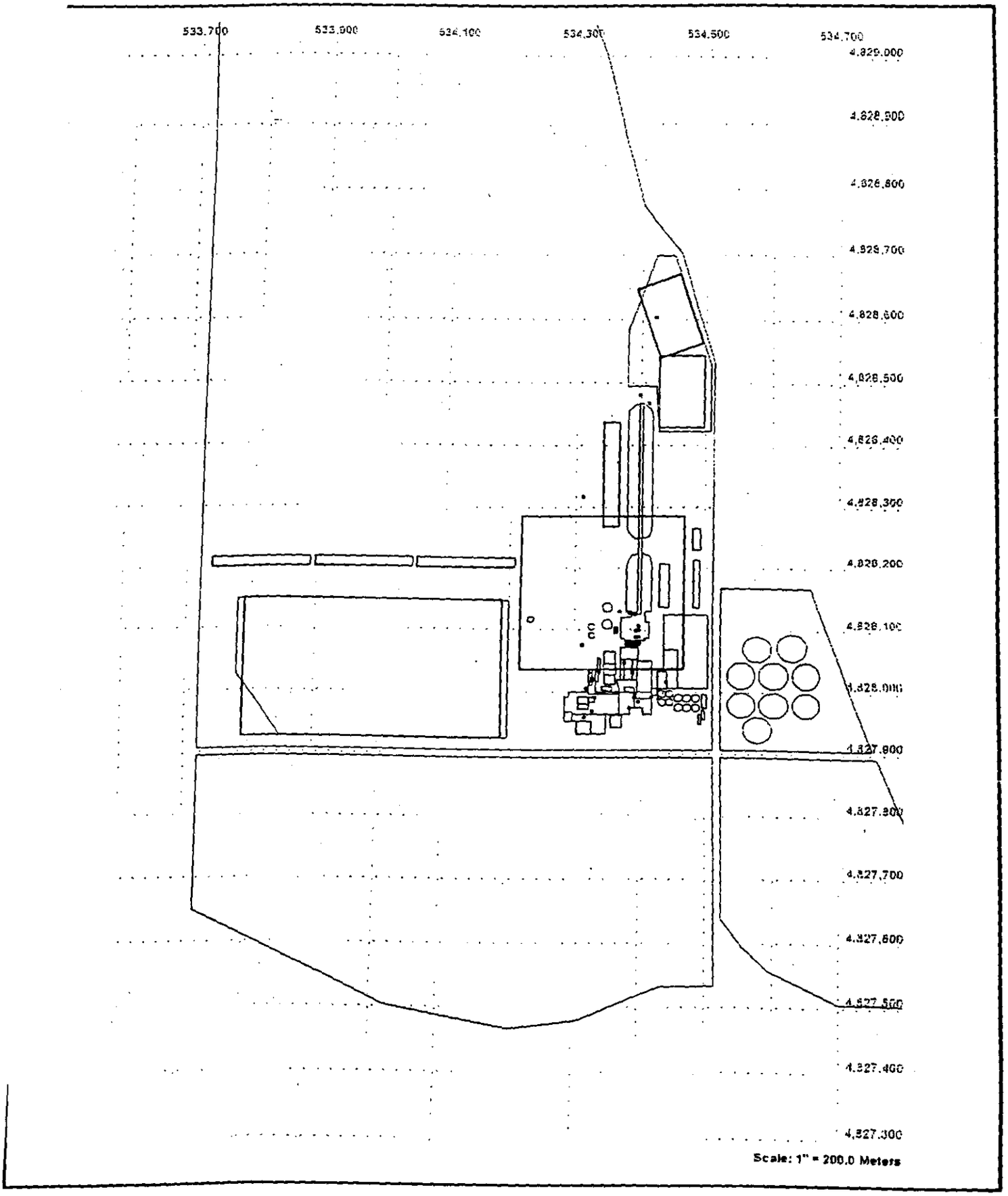


Figure 3-3. Source Locations and Configurations at the TASCO Nampa Facility

3.3 Air Quality Modeling Methodology

This section provides an overview of the modeling methodology that was used to model the Tier II air quality impacts for the TASCO Nampa facility. Modeling was performed for all sources described in the previous section for each criteria pollutant. All modeling selections, options, receptors, terrain elevation data, and output options are described below.

3.3.1 Model Selection

For this analysis, the Industrial Source Complex Model (ISC), including the Plume Rise Model Enhancements Model (PRIME), was used for all NAAQS analysis. The use of ISCPRIME was thought the best representation of the sources and buildings interaction that may result in downwash of effluent plumes. Because public access roadways are in the near vicinity to buildings and sources at the site and potentially in the near-wake zones of such effects, the use of ISCPRIME was considered reasonable as the substitute for the "preferred" ISCST3 Model, which did not include as robust a treatment of the downwash.

The Industrial Source Complex Model is a steady-state straight-line Gaussian plume model that is recommended by EPA's *Guideline on Air Quality Models*. The ISCPRIME Model has many features that make it the most representative model for this analysis including:

- Preferred model status for the ISC portion of the model
- Multiple sources
- Point, area, and volume source capabilities
- Hour-by-hour meteorological data used in calculations
- User-specified grouped source concentration estimates
- Urban/rural classification
- Building downwash using the new PRIME algorithms
- Consideration of elevated terrain receptors
- Variable receptor locations

The ISCPRIME Model was implemented using the windows interface program by Bowman Environmental, Inc. (BEELINE) software (BEEST) in its current version of 8.6. Digitized terrain data for the modeling was derived from the 30-m Digital Elevation Model (DEM) data for each applicable USGS 7.5-minute quadrangle map.

No other air dispersion models were used in this analysis. However, another related model was used for the calculation of building downwash influence on the plumes. This model was the U.S. EPA *Building Profile Input Program PRIME* (BPIP-PRIME) (draft user's guide, October 1993). The BPIP-PRIME Model is included in the BEEST, Version 8.6 software.

3.3.2 Source Identification and Location

Each source considered in the modeling at the TASCO Nampa facility was identified in Section 3.2. Each source had a unique model identifier that was used throughout the modeling analysis both in the model and in any tables presenting the concentration estimates. A Cartesian coordinate system in Universal Transverse Mercator (UTM) coordinates was used in this analysis. Figure 3-3 shows the layout and identification of the point sources and fugitive sources, respectively.

3.3.3 Receptor Locations

Receptor locations were chosen consistent with recommendations from the *Guideline on Air Quality Models* and the Idaho *Air Quality Modeling Guidance* to determine the maximum concentrations for TASCO. Receptors were located where ambient air exists, i.e., any location at or beyond property fence lines or controlled access areas. Areas owned by TASCO south of Karcher Road were considered ambient air because they are not fenced nor was access controlled. The receptors that were used for this analysis included fence line receptors spaced at 50-meter intervals. Multiple Cartesian grids were arranged beyond the fence line out to 10,000 m. Maximum concentrations were expected to be well within that distance based on previous modeling performed in support of earlier permitting activities. Grid spacings consisted of 100-m spacing from the site out to 2500 m, 250-m spacing out to 5000 m, and 500-m spacing out to 10,000 m.

Figure 3-4 shows a large-scale view of the facility and all receptors included in the ISCPRIME analysis. Figure 3-5 shows the same receptor grid at a closer scale with detail of the sources and other existing structures.

Because the terrain around the TASCO Nampa site is higher than the base elevation of the site, the elevation of each receptor above mean sea level was included in the analysis. These elevations were derived from the 30-m resolution Digital Elevation Model (DEM) outputs for all appropriate USGS 7.5-minute quadrangle maps for the area.

3.3.4 Meteorological Data

For the ISCPRIME Model, preprocessed meteorological data was required. Because several averaging periods for the various NAAQS are of concern, five years of representative data were used for this analysis. Data recommended by the DEQ was that for Boise. Both surface observations and mixing heights from the upper air soundings were available. As recommended, this data set consisted of representative surface meteorological observations from the Boise Airport (Station No. 24131). This data includes hourly observations of wind speed, wind direction, opaque cloud cover, and temperature. Upper air data required was the twice-daily mixing heights associated with the surface data that was obtained from derived observations also taken at the Boise Airport. The period of record for the meteorological data was 1987 through 1991 and included data for every hour of each year.

3.3.5 Urban/Rural Classification

The ISCPRIME Model has the option of considering either a rural or urban mode of operation that selects dispersion coefficients used in the model to calculate concentration profiles in the horizontal and vertical directions. The area within a 3.0-km radius of the site was identified by general land-use type on USGS topography maps. Based on EPA recommendations, to be classified "urban," greater than 50 percent of the land within 3.0 km of the source must be used by source types in the following categories:

- I1 - Heavy Industrial - major chemical, steel, and fabrication industries; generally 3- to 5-story buildings - grass and tree growth extremely rare; <5 percent vegetation.

- I2 - Light Industrial - rail yards, truck depots, warehouses, industrial parks, minor fabrications; generally 1- to 3-story buildings - very limited grass, trees almost totally absent; <5 percent vegetation; C-1 - Commercial - office and apartment buildings, hotels; >10-story heights - limited grass and trees; <15 percent vegetation.

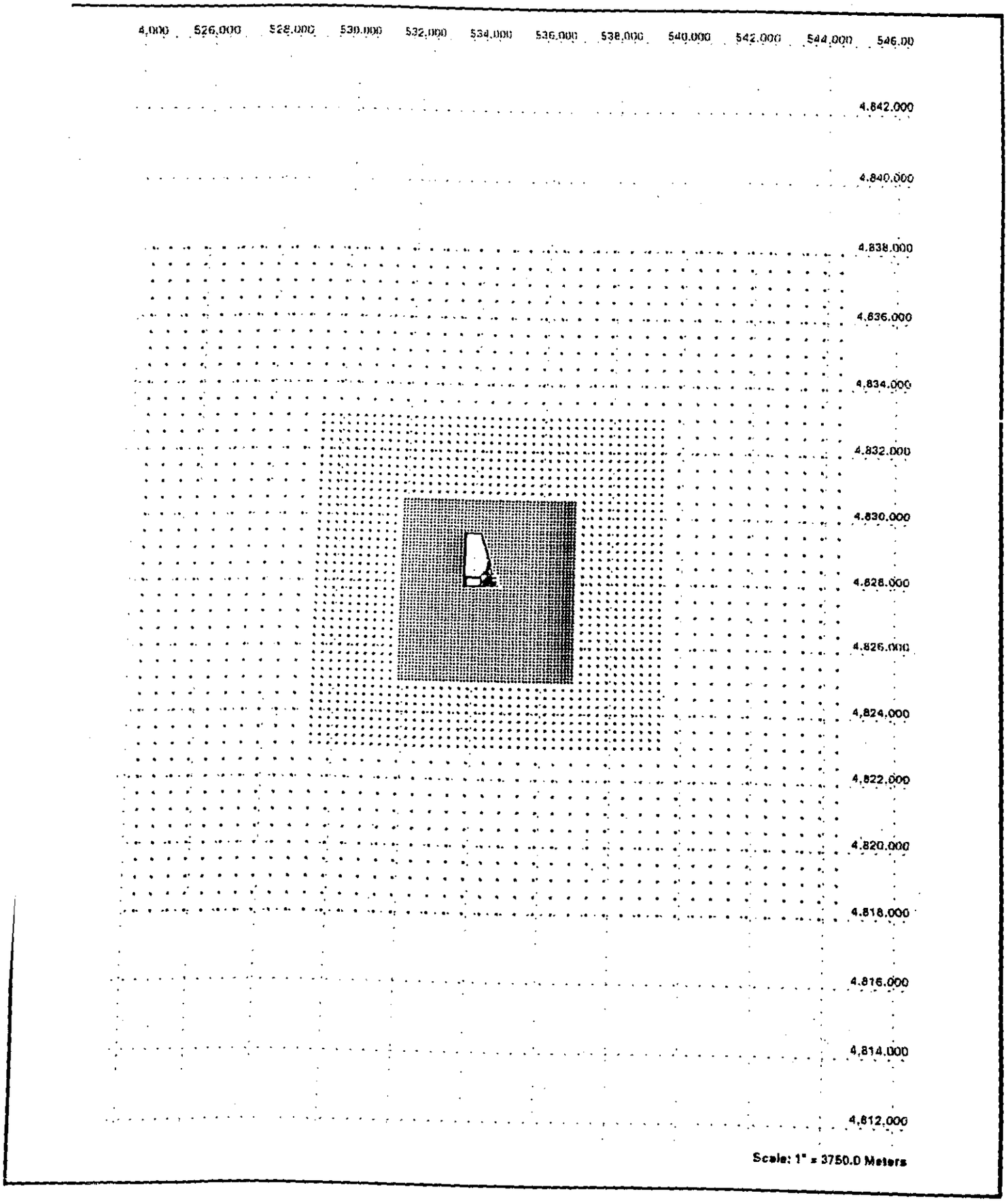


Figure 3-4. Overall Receptor Grid and Fence Line for the TASCO Nampa Facility

- R2 - Compact Residential - single, some multiple, family dwellings with close spacing; generally <2-story; garages no driveway - limited lawn sizes and shade trees; <30 percent vegetation.

- R3 - Compact Residential - old multi-family dwellings with close lateral separation; generally <2-story; garages no driveway - limited lawn sizes, old established shade trees; <35 percent vegetation.

A review of the land-use and geography of the area around the site indicated that the rural mode was the most appropriate for this analysis because much of the nearby land within 3.0 km was rural, non-residential, or open rangeland.

3.3.6 Model Inputs

The ISCPRIME Model is a versatile model both in terms of the physical phenomena that it can represent and the options that are available for model control and calculations. The regulatory default options applicable to the ISCST3 were used throughout all applications of the ISCPRIME Model. Table 3-5 presents a summary of the features that were set by the regulatory default option as well as other options that were selected for this analysis. All options in Table 3-5 were chosen to be consistent with the requirements of the detailed modeling analysis performed for Tier II permitting in Idaho.

3.3.7 Building Downwash

All plumes from both point and fugitive sources of emissions from the TASCO facility may be affected by nearby buildings and structures. Heights and locations for stacks, buildings, and other structures were included in the modeling analysis because building downwash of released emissions may influence the plumes (which will tend to bring the plumes closer to the ground near the structures).

The building and stack configuration of the TASCO Nampa facility consists of many structures and tanks of varying heights and dimensions. The coordinates for these structures were derived from the Tier II application and were entered into the BEEST Manager for ISCPRIME and BPIP-PRIME to graphically depict the structures and set up the input files for the downwash calculations. All building and structure outlines were shown in Figure 3-2.

According to the EPA guidance on considering the influence of a building or structure on a stack, if the stack is less than Good Engineering Practice (GEP) stack height, the emission plume should be treated as if it were affected by the building. GEP stack height is defined as:

$$H_{GEP} = h_b + 1.5L$$

where:

H_{GEP} = Good Engineering Practice stack height (m)
h_b = nearby structure height
L = the lesser of the nearby structure height or maximum projected width

In this case, the height of each TASCO stack was compared to the BPIP-Prime Model calculated GEP stack height to determine if building downwash was applicable. For each stack that was less than GEP, the associated height and maximum projected width of each applicable structure was tabulated for each of 36 different wind directions (0 through 360 at 10-degree intervals). The results of these calculations for each

stack and structure comparison for each wind direction was tabulated and used in the ISCPRIME Model inputs.

3.3.8 Background Concentrations

Background concentrations for each averaging period for each criteria pollutant were determined from actual monitored data available from the Idaho DEQ. Background concentrations and monitoring sites are noted below for each criteria pollutant for which an NAAQS concentration exists and was modeled.

PM_{10}	24-hour	90.0 $\mu g/m^3$	Meridian, Idaho
	Annual	28.5 $\mu g/m^3$	Meridian, Idaho
SO_2	3-hour	374 $\mu g/m^3$	Idaho, statewide average
	24-hour	120 $\mu g/m^3$	Idaho, statewide average
	Annual	18.3 $\mu g/m^3$	Idaho, statewide average
CO	1-hour	12,700 $\mu g/m^3$	Nampa, Idaho
	8-hour	5,726 $\mu g/m^3$	Lewiston, Idaho
NO_2	Annual	40 $\mu g/m^3$	Boise, Idaho

The Lewiston, Idaho CO monitoring site was used for the 8-hour averaging period. All three Idaho CO sites are located in downtown areas of Lewiston, Nampa, and Boise. The Lewiston site was the least urban of the three sites, and thus was thought to provide the background concentration most representative of the TASCO Nampa facility on an 8-hour basis. The Nampa site was closer to TASCO, but was characterized by much more mobile source congestion than either Lewiston or the TASCO site.

3.3.9 Modeling Documentation

All modeling is summarized in this documentation and has been submitted to DEQ. Electronic files of all modeling will also be submitted including all ISCPRIME Model input and output files.

3.4 Results of Ambient Impact Analysis

An ambient air quality impact analysis was conducted for all emission sources at the TASCO Nampa sugarbeet processing facility. The maximum concentrations associated with each criteria pollutant for each averaging period were estimated using the ISCPRIME Model with a 5-year data set of meteorological data. Tables 3-6 through 3-9 present the concentration estimates for each criteria pollutant and averaging period, receptor coordinates for the maximum impacts, and the period of the year whereby the concentrations were estimated. The results in these tables are summarized in Table 3-10 for the year or period for which the highest concentration occurred. For the annual periods, the highest concentration of each year was selected. For the averaging periods with short-term NAAQS, the highest second-highest concentrations were selected and are presented in Table 3-10, except for PM_{10}. For PM_{10} a sequential 5-year meteorological data set was processed in the ISCPRIME Model and the highest sixth-highest concentration over all years at any one receptor was selected for comparison to the NAAQS for a 24-hour period. Background concentrations are included in the analysis.

As Table 3-10 shows, all concentrations including background are less than the applicable NAAQS. This demonstration of compliance is contingent on all abatement programs presented in Section 2 being

implemented. If one or more of these abatement programs are not implemented, higher concentrations are estimated and NAAQS compliance is not demonstrated.

TABLE 3-5. OPTIONS SELECTED IN THE ISCPRIME MODEL FOR TIER II EMISSIONS AT THE TASCO NAMPA FACILITY

Option description
Regulatory default option.
Concentrations in micrograms/cubic meter were computed.
Universal Transverse Mercator coordinates (UTMs) for the fence line and gridded receptor locations were used.
Terrain elevations were considered.
The Rural Mode option was selected.
Default wind profile exponent values were selected.
Default vertical potential temperature gradient values were selected.
The downwind distance plume rise option was used.
Buoyancy-induced dispersion was used.
The wind system measurement height was set to 6.1 meters (22ft).
Building aerodynamic downwash was performed where applicable and included building information for the PRIME Model.
Stack tip downwash was modeled.
Program control parameters, receptors, and source input data were selected for output.
Concentrations during calm hours were set to zero.
Averaging times were selected consistent with those applicable to a Tier II NAAQS analysis.

TABLE 3-6. MAXIMUM PM-10 IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES

Year	Highest Annual Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m
1987 [a]	15	534,512.3	4,828,003	752.9
1988 [a]	16	534,512.0	4,827,906	752.9
1989 [a]	15	534,512.2	4,827,954	752.9
1990 [a]	15	534,512.2	4,827,954	752.9
1991 [a]	18	534,512.2	4,827,954	752.9

Year	Highest 24-Hour Concentration	Receptor Location			Highest Sixth Highest 24-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987 [a]	64	534,400.0	4,827,900	752.9	49	534,512.3	4,828,003	752.9
1988 [a]	55	534,512.3	4,828,003	752.9	47	534,512.3	4,827,003	752.9
1989 [a]	80	534,512.3	4,828,003	752.9	53	534,524.5	4,828,037	752.9
1990 [a]	73	534,512.0	4,827,906	752.9	48	534,512.3	4,828,003	752.9
1991 [a]	73	534,512.3	4,828,003	752.9	50	534,512.3	4,828,003	752.9
1987-1991 [b]	80	534,512.3	4,828,003	752.9	59	534,512.3	4,828,003	752.9

[a] Based on modeling results for an individual year meteorological data (1987, 1988, 1989, 1990 or 1991).

[b] Based on modeling results for combined years of meteorological data (1987-1991).

TABLE 3-7. MAXIMUM NO_2 IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES

Year	Highest Annual Concentration	Receptor Location		
	$\mu g/m^3$	East, m	North, m	Elevation, m
1987	24	534,512.3	4,828,003	752.9
1988	26	534,512.2	4,827,954	752.9
1989	23	534,512.2	4,827,954	752.9
1990	24	534,512.2	4,827,954	752.9
1991	27	534,512.3	4,828,003	752.9

TABLE 3-8. MAXIMUM SO_2 IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES

Year	Highest Annual Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m
1987	16	534,500	4,827,900	752.9
1988	17	534,400	4,827,900	752.9
1989	16	534,400	4,827,900	752.9
1990	16	534,400	4,827,900	752.9
1991	18	534,500	4,827,900	752.9

Year	Highest 24-Hour Concentration	Receptor Location			Highest Second Highest 24-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	100	533,300	4,828,600	751.3	93	533,200	4,828,700	751.3
1988	94	535,400	4,826,800	757.4	81	535,100	4,827,200	755.9
1989	74	535,100	4,827,400	755.0	64	535,400	4,827,100	755.9
1990	85	535,400	4,826,800	757.4	79	536,000	4,826,700	759.6
1991	91	535,700	4,826,800	755.9	75	536,000	4,826,700	759.6

Year	Highest 3-Hour Concentration	Receptor Location			Highest Second Highest 3-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	280	535,000	4,827,300	755.9	262	535,200	4,827,100	755.9
1988	297	535,000	4,827,400	755.9	284	535,000	4,827,400	755.9
1989	283	535,100	4,827,500	754.4	239	535,000	4,827,500	755.3
1990	285	534,900	4,827,300	755.9	250	535,000	4,827,300	755.9
1991	276	535,200	4,827,400	753.8	252	535,300	4,827,200	755.6

TABLE 3-9. MAXIMUM CO IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES

Year	Highest 8-Hour Concentration	Receptor Location			Highest Second Highest 8-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	3,572	534,524	4,827,906	752.9	3,469	534,700	4,827,800	754.4
1988	3,798	534,700	4,827,800	754.4	3,123	534,500	4,827,900	752.9
1989	3,054	534,400	4,827,600	754.4	2,726	534,600	4,827,800	753.8
1990	3,292	534,500	4,827,800	753.5	2,870	534,700	4,827,800	754.4
1991	3,989	534,700	4,827,800	754.4	3,165	534,700	4,827,800	754.4

Year	Highest 1-Hour Concentration	Receptor Location			Highest Second Highest 1-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	7,775	533,721	4,827,906	752.9	6,750	534,200	4,827,500	754.1
1988	7,580	534,513.2	4,828,291	752.2	7,100	534,300	4,827,600	754.4
1989	8,466	534,800	4,828,000	753.8	7,091	534,300	4,827,600	754.4
1990	7,794	534,300	4,827,600	754.4	7,165	534,688	4,828,081	752.9
1991	7,121	534,513.2	4,828,291	752.2	6,806	534,513.2	4,828,291	752.2

TABLE 3-10. SUMMARY OF TASCO - NAMPA, NAAQS ANALYSIS (PROPOSED EQUIPMENT CONFIGURATION)[a]

Modeled by IDEQ/EQ

Pollutant	Averaging Period	Modeled Concentration, $\mu g/m^3$	Background Concentration, $\mu g/m^3$	Total Concentration (Modeled plus Background), $\mu g/m^3$	NAAQS, $\mu g/m^3$	Percent of NAAQS
PM10	24-Hour [b]	59	90	149	150	99.6
PM10	Annual	18	28.5	46	50	92.4
SO2	3-Hour	284	374	658	1,300	50.6
SO2	24-Hour	93	120	213	365	58.3
SO2	Annual	18	18.3	36	80	45.1
NOx	Annual	27	40	67	100	67.2
CO	1-Hour	7,165	12,700	19,865	40,000	49.7
CO	8-Hour	3,469	5,726	9,195	10,000	92.0

[a] Modeling results based on control measures outlined in the Emission Control Plan submitted to IDEQ by The Amalgamated Sugar Company (TASCO).

[b] Refers to the highest sixth highest concentration over 5 years (1987-1991).

4. MODELING DIFFERENCES BETWEEN TASCO/MFG AND EQ/DEQ:

As in any application of dispersion models, calculations using emission factors and equations, and characterization of sources, receptors, and meteorological data, differences were found between the modeling performed by TASCO/MFG and EQ/DEQ. Although the results of the modeling were not significantly different, some discussion of the differences in modeling approaches is warranted. Each area of difference is detailed in the following bullets with expected effects on the results.

A. Meteorological data files

Meteorological data from the Boise Airport for the period of 1987-1991 was used by both modeling groups. EQ processed the data as downloaded from the EPA's Website – SCRAM. MFG processed the same data. Both modelers used the PCRAMMET Program for processing with identical results for all parameters. The only difference in the files was that MFG adjusted all mixing heights less than 50 m to a minimum of 50 m. EQ did not make such adjustments. Modeling analysis using both data sets revealed little difference in the resulting estimated concentrations.

B. Modeling of Fugitive Emissions

Characterization of fugitive emissions was made by assigning each storage pile, building fugitive, handling operation, etc., as a volume or area source for the modeling. MFG's selection of source types and assignments to various fugitives was defined in the modeling reports and supplemented by more detail in the modeling files. The dimensions, heights of piles and operations, and initial vertical and horizontal dimensions were specified for each source along with the distribution of emissions for each source (if seasonally adjusted). Two primary differences between the MFG and EQ modeling were that: 1) EQ did not include a vertical initial dispersion coefficient for area sources (value was set equal to zero), and 2) EQ broke down the fugitive sources into a more detailed set of sources based on review of the supporting documentation for emissions breakdown provided by TASCO. An example is the lime rock storage area, where EQ divided the storage emissions into those at the pile and those at the hoppers. Other similar source characterization refinements were applied to the coal storage and handling, the unpaved roads, and shredded/pellet pulp loadout. Overall differences in the modeling results would have been evident in the PM_{10} modeling impacts. Even with these differences in modeling approach, very little difference between the EQ and MFG estimates were noted (within 0.3 $\mu g/m^3$ on the short-term 24-hour concentrations).

C. Review of the TASCO Emissions

Review of the TASCO emissions in the Tier II documentation and comparison to the emissions used in the dispersion modeling files determined that the tabular values were sometimes rounded. This rounding resulted in comparisons that were not always one-to-one in magnitude of emissions. Further investigation of units conversion factors and combining of seasonal factors allowed the determination of the correct emissions to model.

D. Current Conditions Versus Proposed Conditions

EQ performed base case modeling (current operating conditions, no mitigation, and no controls or shut-downs) and compared these values to the proposed operations impacts. The current conditions were found to result in impacts greater than the NAAQS for several criteria pollutants and several averaging periods. No discussion of such variability between the current operations impacts and the proposed operations impacts was included in the Tier II application. Thus, the compliance with the NAAQS is not assured during the phased implementation of the abatement programs.

E. *Modeling of Shredded and Pellet Pulp Warehouse*

MFG specifically modeled emissions of PM_{10} from the pulp warehouse. EQ/DEQ review of the pulp warehouse indicated that emissions outside the building would be inconsequential based on the emissions estimated within the building as well as the consideration of the mitigation effects of the building. The review and comparison of PM_{10} emissions determined that insignificant differences in the modeling resulted from this approach.

F. Receptor Locations

EQ separately set up a receptor grid based on DEQ guidance. It included a 50-m fence line grid as well as 100-m, 250-m, and 500-m spacing out to 10 km from the center of the plant. MFG set up a similar grid and included fence line receptors as well as a 50-m grid east of the facility and 200-m grid elsewhere out to 10 km. Although MFG's modeling included a more dense grid of fence line receptors than EQ's, the difference both in magnitude of impacts and locations was not significant. The only pollutant for which some differences were noted was for CO.

G. Lead (Pb) Modeling

At the request of DEQ, TASCO performed dispersion modeling of the potential impacts of lead emissions from the facility. This was done simplistically from the lead emission perspective; i.e., lead emissions were assumed to be 1% of the PM_{10} emissions but conservatively from the impact perspective, 24-hour PM_{10} concentrations were prorated to the 1% lead emissions. This 24-hour lead concentration was compared to the quarterly NAAQS for lead by TASCO with compliance demonstrated. EQ/DEQ did not perform any modeling considering that the lead emissions were not well founded.

No other significant differences in the modeling between EQ/DEQ and MFG/TASCO were noted.

BASE CASE AIR QUALITY MODELING

The dispersion modeling performed for TASCO in Nampa, Idaho included all mitigative measures proposed by TASCO. Additional dispersion modeling was performed by EQ/DEQ to determine the ambient air impacts under current operations. This is referred to as "base case" modeling. The modeling methodology presented in Section 3 of this memorandum was followed. All source characterization, meteorology, building downwash, receptors, and model options were identical in this base case modeling to the Section 3 modeling. The only differences were in the consideration of sources: 1) emissions for the central and north dryer stacks were included, 2) full emissions were used for the south dryer stack, 3) no baghouses were included for the pellet coolers, 4) no fugitive dust management plan emission reductions were included, and 5) the Riley boiler stack was located at its existing location at a height of 30.5 m (100 ft). Table A-1 presents the base case source characteristics and locations. Table A-2 presents the base case emissions for each source that were used in the modeling.

Tables A-4 through A-7 present summaries of dispersion modeling for each pollutant and each applicable averaging period. Table A-8 gives a summary of the appropriate maximum concentration impacts plus background concentrations compared to the NAAQS. As shown in Table A-8, carbon monoxide was the only pollutant that was compliant with the NAAQS.

Figures A-1 through A-8 present concentration isopleths for each pollutant for each averaging period for the year with the maximum concentration using base-case emissions. The isopleth marked in a thick line indicates the boundary of the area exceeding or at the NAAQS for each pollutant. As shown, the area of exceedance generally lies to the southeast and northwest of the facility, which follows the climatological predominant wind directions. Figures A-6 and A-7 for CO are included, but no exceedances are shown.

Additional figures were generated that present the number of expected exceedances of the applicable short-term NAAQS for PM_{10} (24-hour) and SO_2 (3-hour and 24-hour) at each receptor for each year of analysis. Figures A-9 through A-38 present these expected number of exceedances by pollutant, averaging period, and year of meteorological data in both an overall receptor grid view and a close-in grid view to show details of the areas of maximum impacts. As shown, exceedances under the base case PM_{10}, SO_2, and NO_X emissions and source characterization are estimated to occur often under various meteorological conditions.

APPENDIX A

BASE CASE AIR QUALITY MODELING

TABLE A-1. STACK PARAMETERS FOR POINT SOURCES AT THE TASCO NAMPA FACILITY FOR THE BASE CASE

Source ID	Source Description	UTM-East, m	UTM-North, m	Base Elev., m	Stack Height, ft	Stack Temp., °F	Stack Dia., ft	Flow Vel., ft/s	Flow Vol., acfm
SB1_B&W	B&W Boiler 1	534,391	4,828,031	752.6	245	277	11	12.45	71,018
SB2_B&W	B&W Boiler 2	534,391	4,828,031	752.6	245	277	11	12.45	71,018
SB3RILEY	***Riley Boiler***	***534,402***	***4,828,063***	752.6	***100***	309	7	52.49	121,203
SB4UNION	Union Boiler	534,378	4,828,046	752.6	66	325	4	25.15	18,963
SD1A_SE	South Furnace Dryer (Stack 1 of 2)	534,401	4,828,087	752.6	77	167	7	9.74	22,481
SD1B_SW	South Furnace Dryer (Stack 2 of 2)	534,396	4,828,087	752.6	77	167	7	9.74	22,481
SD2A_CE	Center Furnace Dryer (Stack 1 of 2)	534,401	4,828,099	752.6	69	177	7	10.70	24,716
SD2B_CE	Center Furnace Dryer (Stack 1 of 2)	534,396	4,828,099	752.6	69	177	7	10.70	24,716
SD3_N	North Furnace Dryer (Stack 1 of 1)	534,400	4,828,106	752.6	91	157	7	12.84	29,639
SD4_PC1	Pellet Cooler No.1	534,386	4,828,129	752.6	59	120	3.5	14.72	8,497
SD5_PC2	Pellet Cooler No.2	534,389	4,828,129	752.6	59	120	4	15.92	12,003
SD6_PC3	Pellet Cooler No.3	534,392	4,828,129	752.6	59	120	4	15.92	12,003
SD7_PC4	Pellet Cooler No.4	534,395	4,828,129	752.6	59	120	4	15.92	12,003
SD8_PC5	Pellet Cooler No.5	534,395	4,828,126	752.6	62	120	4	10.68	8,053
SK1_LKA	Lime Kiln A	534,328	4,827,968	752.8	82	175	3	33	13,996
SK2_LKB	Lime Kiln B	534,328	4,828,018	752.6	82	175	3	33	13,996
SK3_LKDC	Lime Kiln Building Material Handling	534,328	4,828,022	752.6	79	90	2.5	16.67	4,910
SK4_SLAK	A&B Process Slakers	534,338	4,828,031	752.6	6.6	80	2.5	16.67	4,910
SW1_DGRN	Drying Granulator	534,386	4,827,973	752.8	66	127.5	2	80.45	15,164
SW2_#1CG	#1 Cooling Granulator	534,394	4,827,991	752.8	52	122	1.86	26.89	4,360
SW3_#2CG	#2 Cooling Granulator	534,400	4,827,983	752.9	52	122	1.86	26.89	4,360
SW4_P2SH	Sugar Handling (Process #2)	534,420	4,827,991	752.8	36	100	4.60	27.18	27,103
SW5_SURE	Sugar Remelt	534,395	4,827,997	752.8	33	103	0.83	9.45	307
SW6_SPBH	Sugar Handling (Specialties)	534,431	4,828,004	752.7	30	100	3.5	13.33	7,695
SW7_PLBH	Sugar Handling (Packaging Line)	534,442	4,828,016	752.6	26	100	1.60	99.47	12,001
SO2_SSTA	A Side Sulfur Stove	534,333	4,827,990	752.6	56	225	1	16.67	786
SO3_SSTB	B Side Sulfur Stove	534,316	4,827,957	752.9	82	225	1	16.67	786
S12_CARB	Carbonation Vents	534,319	4,828,005	752.6	108	190	3.30	23.38	11,997

Items in bold italics represent differences between the base case and final modeling.

TABLE A-2. AREA SOURCE CHARACTERSTICS FOR FUGITIVE EMISSIONS AT THE TASCO NAMPA FACILITY FOR THE BASE CASE

Area Sources								
Source ID	Source Description	UTM X, m	UTM Y, m	Base Elev., m	East-West Dimension, ft	North-South Dimension, ft	Angle of Rotation, degrees	Release Height, ft
F010COKE	F-010 Coke Handling	534,343	4,828,270	752.6	80.0	544.0	0	5
FD9COAL	F-D9 Coal Unloading (Railcar)	534,362	4,828,094	752.6	16.4	32.8	0	0
F04UNLOD	F-04 Coal Unloading (Railcar)	534,397	4,828,479	752.6	10.0	10.0	0	0
F05STORS	F-05 Coal Storage Pile (South)	534,428	4,828,428	752.6	229.7	377.3	0	30
F05STORN	F-05 Coal Storage Pile (North)	534,429	4,828,539	752.6	229.7	377.3	-19	30
F07BEET	F-07 Beet Hauling	533,790	4,827,926	752.6	1312.3	738.2	0	0
F08UNPV1	F-08 Small Vehicle Traffic on Unpaved Roads (Plantwide)	534,218	4,828,036	752.6	820.2	820.2	0	1
F08UNP2A	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	533,737	4,828,202	752.6	500	50	0	1
F08UNP2B	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	533,897	4,828,202	752.6	500	50	0	1
F08UNP2C	F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)	534,056	4,828,201	752.6	500	50	0	1

Volume Sources							
Source ID	Source Description	UTM X, m	UTM Y, m	Base Elev., m	Initial Horz. Dimension, ft	Initial Vert. Dimension, ft	Release Height, ft
F09_125	F-09 Lime Rock Handling at Pile	534,311	4,828,317	752.6	18.6	13.9	15
F09_34	F-09 Lime Rock Handling at Hopper	534,313	4,828,074	752.6	7.0	7.0	15
FD10SHRD	F-D10 Shredded Pulp Truck Loadout	534,371	4,828,131	752.6	3.5	7.0	7.5
FD10PELL	F-D10 Pellet Pulp Truck Loadout	534,413	4,828,467	752.6	3.5	7.0	7.5
F06COLRR	F-06 Coal Loading to Rail Cars	534,422	4,828,604	752.6	4.7	7.0	7.5

TABLE A-3. TASCO NAMPA PLANT PROPOSED SHORT-TERM ALLOWABLE EMISSIONS FOR THE BASE CASE

Source ID	Source Description	PM_{10}, lbs/hr	NO_x, lbs/hr	SO_2, lbs/hr	VOC, lbs/hr	CO, lbs/hr
Point Sources						
SB1_B&W	B&W Boiler 1	28.35	104.58	220.5	0.44	3.15
SB2_B&W	B&W Boiler 2	28.35	104.58	220.5	0.44	3.15
SB3RILEY	Riley Boiler	81.25	390.0	632.5	1.28	30
SB4UNION	Union Boiler	1.56	7.2	0.046	0.396	6
SD1A_SE	***South Furnace Dryer (Stack 1 of 2)***	***18.72***	***38.03***	***13.64***	***2.11***	***73.01***
SD1B_SW	***South Furnace Dryer (Stack 2 of 2)***	***18.72***	***38.03***	***13.64***	***2.11***	***73.01***
SD2A_CE	***Center Furnace Dryer (Stack 1 of 2)***	***18.72***	***23.4***	***15.93***	***2.11***	***47.74***
SD2B_CE	***Center Furnace Dryer (Stack 1 of 2)***	***18.72***	***23.4***	***15.93***	***2.11***	***47.74***
SD3_N	***North Furnace Dryer (Stack 1 of 1)***	***28.4***	***35.25***	***10.49***	***1.63***	***63.9***
SD4_PC1	***Pellet Cooler No.1***	***1.71***	0	0	0	0
SD5_PC2	***Pellet Cooler No.2***	***2.683***	0	0	0	0
SD6_PC3	***Pellet Cooler No.3***	***2.683***	0	0	0	0
SD7_PC4	***Pellet Cooler No.4***	***2.683***	0	0	0	0
SD8_PC5	***Pellet Cooler No.5***	***1.771***	0	0	0	0
SK1_LKA	Lime Kiln A	0.1	1.39	3.48	0.18	171.3
SK2_LKB	Lime Kiln B	0.117	1.61	4.04	0.2	198.95
SK3_LKDC	Lime Kiln Building Material Handling	0.792	0	0	0	0
SK4_SLAK	A&B Process Slakers	1.39	0	0	0	0
SW1_DGRN	Drying Granulator	1.15	0	0	0	0
SW2_#1CG	#1 Cooling Granulator	0.288	0	0	0	0
SW3_#2CG	#2 Cooling Granulator	0.288	0	0	0	0
SW4_P2SH	Sugar Handling (Process #2)	0.275	0	0	0	0
SW5_SURE	Sugar Remelt	0.025	0	0	0	0
SW6_SPBH	Sugar Handling (Specialties)	0.129	0	0	0	0
SW7_PLBH	Sugar Handling (Packaging Line)	0.208	0	0	0	0
SO2_SSTA	A Side Sulfur Stove	0	0	2.10	0	0
SO3_SSTB	B Side Sulfur Stove	0	0	2.10	0	0
S12_CARB	Carbonation Vents	0.66	8.99	25.56	0	1110.7
Area Sources						
F010COKE	F-010 Coke Handling	0.054	0	0	0	0
FD9COAL	***F-D9 Coal Unloading (Railcar)***	***0.221***	0	0	0	0
F04UNLOD	***F-04 Coal Unloading (Railcar)***	***0.904***	0	0	0	0
F05STORS	***F-05 Coal Storage Pile (South)***	***1.102***				
F05STORN	***F-05 Coal Storage Pile (North)***	***1.102***	0	0	0	0
F07BEET	***F-07 Beet Hauling***	***0.371***	0	0	0	0

Items in bold italics represent differences between the base case and final modeling.

TABLE A-3. (continued)

Source ID	Source Description	PM_{10}, lbs/hr	NO_x, lbs/hr	SO_2, lbs/hr	VOC, lbs/hr	CO, lbs/hr
F08UNPV1	***F-08 Small Vehicle Traffic on Unpaved Roads (Plantwide)***	***3.614***	0	0	0	0
F08UNP2A	***F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)***	***0.134***	0	0	0	0
F08UNP2B	***F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)***	***0.134***	0	0	0	0
F08UNP2C	***F-08 Small Vehicle Traffic on Unpaved Roads (West Entrance Road)***	***0.134***	0	0	0	0
Volume Sources						
F09_125	F-09 Lime Rock Handling at Pile	0.18	0	0	0	0
F09_34	F-09 Lime Rock Handling at Hopper	0.024	0	0	0	0
FD10SHRD	F-D10 Shredded Pulp Truck Loadout	0.005	0	0	0	0
FD10PELL	F-D10 Pellet Pulp Truck Loadout	0.0096	0	0	0	0
F06COLRR	F-06 Coal Loading to Rail Cars	0.0005	0	0	0	0

Items in bold italics represent differences between the base case and final modeling.

TABLE A-4. MAXIMUM PM-10 IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES (BASE CASE)

Year	Highest Annual Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m
1987 [a]	85	534,512.3	4,828,003	752.9
1988 [a]	93	534,512.3	4,828,003	752.9
1989 [a]	82	534,512.3	4,828,003	752.9
1990 [a]	85	534,512.3	4,828,003	752.9
1991 [a]	98	534,512.5	4,828,051	752.9

Year	Highest 24-Hour Concentration	Receptor Location			Highest Sixth Highest 24-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987 [a]	356	534,512.3	4,828,003	752.9	313	534,512.3	4,828,003	752.9
1988 [a]	365	534,512.3	4,828,003	752.9	299	534,512.3	4,828,003	752.9
1989 [a]	337	534,524.2	4,827,950	752.9	303	534,512.3	4,828,003	752.9
1990 [a]	359	534,512.3	4,828,003	752.9	306	534,512.3	4,828,003	752.9
1991 [a]	378	534,512.3	4,828,003	752.9	321	534,524.5	4,828,037	752.9
1987-1991 [b]	378	534,512.3	4,828,003	752.9	354	534,512.3	4,828,003	752.9

[a] Based on modeling results for an individual year meteorological data (1987, 1988, 1989, 1990 or 1991).

[b] Based on modeling results for combined years of meteorological data (1987-1991).

TABLE A-5. MAXIMUM NO_2 IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES (BASE CASE)

Year	Highest Annual Concentration	Receptor Location		
	$\mu g/m^3$	East, m	North, m	Elevation, m
1987	117	534,524.3	4,827,994	752.9
1988	130	534,524.2	4,827,950	752.9
1989	110	534,524.2	4,827,950	752.9
1990	118	534,524.2	4,827,950	752.9
1991	126	534,524.3	4,827,994	752.9

TABLE A-6. MAXIMUM SO_2 IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES (BASE CASE)

Year	Highest Annual Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m
1987	111	534,512	4,827,954	752.9
1988	125	534,512	4,827,954	752.9
1989	104	534,512	4,827,954	752.9
1990	113	534,512	4,827,954	752.9
1991	118	534,524	4,827,950	752.9

Year	Highest 24-Hour Concentration	Receptor Location			Highest Second Highest 24-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	909	534,524.2	4,827,950	752.9	746	534,600	4,827,900	753.5
1988	1,008	534,524	4,827,906	752.9	905	534,524	4,827,906	752.9
1989	894	534,512.2	4,827,954	752.9	727	534,524.2	4,827,950	752.9
1990	966	534,524.2	4,827,950	752.9	920	534,524.2	4,827,950	752.9
1991	870	534,569.2	4,827,906	753.2	834	534,524.2	4,827,950	752.9

Year	Highest 3-Hour Concentration	Receptor Location			Highest Second Highest 3-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	1,725	534,500	4,827,900	752.9	1,670	534,500	4,827,900	752.9
1988	1,843	534,512	4,827,906	752.9	1,743	534,512	4,827,906	752.9
1989	1,770	534,500	4,827,900	752.9	1,607	534,500	4,827,900	752.9
1990	1,721	534,524	4,827,906	752.9	1,647	534,524	4,827,906	752.9
1991	1,768	534,500	4,827,900	752.9	1,696	534,500	4,827,900	752.9

TABLE A-7. MAXIMUM CO IMPACTS FOR TASCO - NAMPA, NAAQS MODELING FOR ALL SOURCES (BASE CASE)

Year	Highest 8-Hour Concentration	Receptor Location			Highest Second Highest 8-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	3,574	534,524	4,827,906	752.9	3,488	534,700	4,827,800	754.4
1988	3,870	534,700	4,827,800	754.4	3,176	534,700	4,827,800	754.4
1989	3,091	534,800	4,827,700	754.4	2,788	534,600	4,827,800	753.8
1990	3,374	534,500	4,827,800	753.5	2,988	534,700	4,827,800	754.4
1991	4,005	534,700	4,827,800	754.4	3,243	534,700	4,827,800	754.4

Year	Highest 1-Hour Concentration	Receptor Location			Highest Second Highest 1-Hour Concentration	Receptor Location		
	µg/m³	East, m	North, m	Elevation, m	µg/m³	East, m	North, m	Elevation, m
1987	8,136	534,513.8	4,828,484	751.3	7,321	534,513.2	4,828,291	752.2
1988	7,813	534,513.2	4,828,291	752.2	7,478	534,300	4,827,600	754.4
1989	8,543	534,800	4,828,000	753.8	7,488	534,300	4,827,600	754.4
1990	8,030	534,300	4,827,600	754.4	7,414	534,300	4,827,600	754.4
1991	7,409	534,513.8	4,828,484	751.3	7,018	534,513.2	4,828,291	752.2

TABLE A-8. SUMMARY OF TASCO - NAMPA, NAAQS ANALYSIS (BASE CASE - CURRENT EQUIPMENT CONFIGURATION)[a]

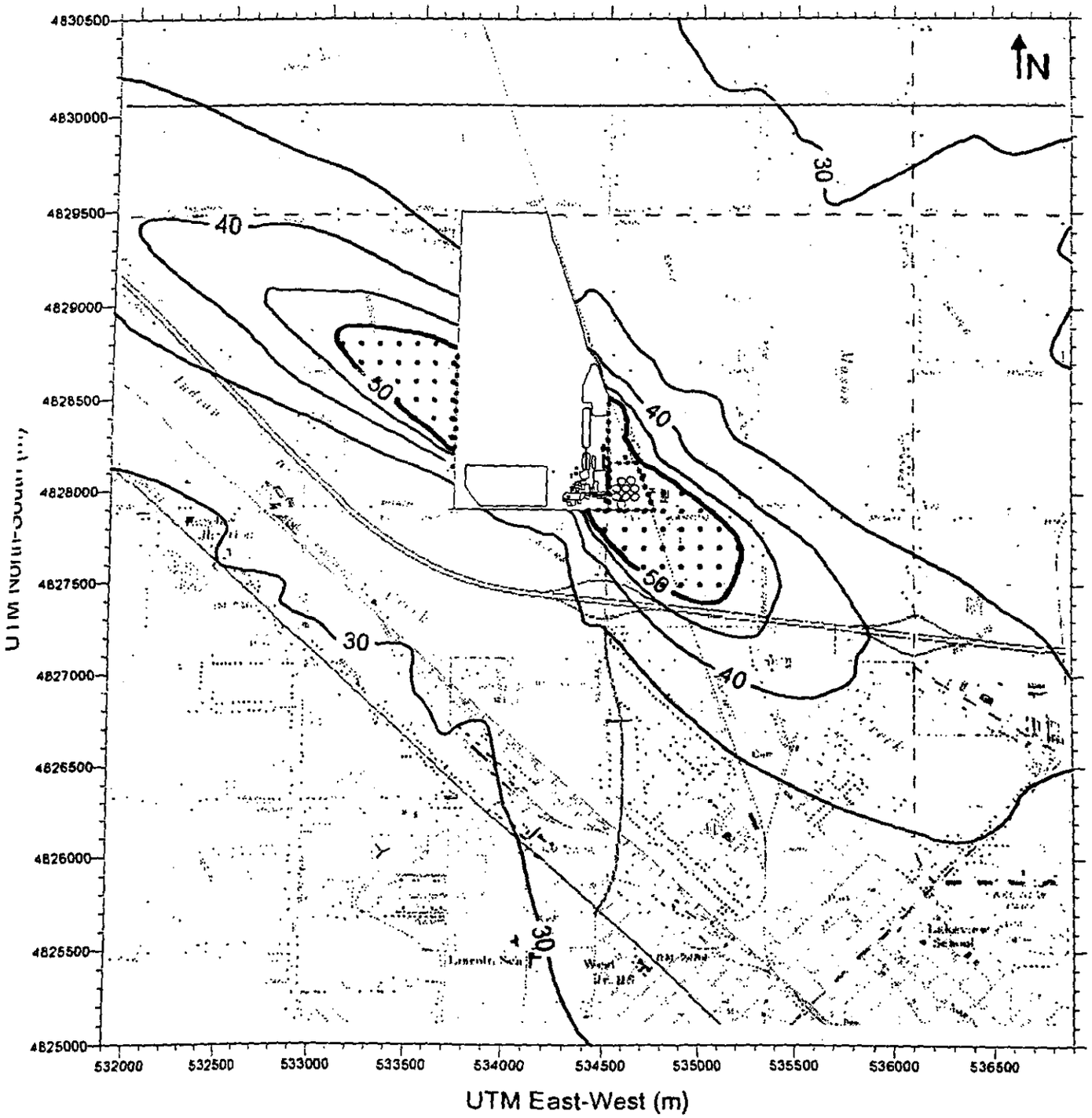
Modeled by IDEQ/EQ

Pollutant	Averaging Period	Modeled Concentration, $\mu g/m^3$	Background Concentration, $\mu g/m^3$	Total Concentration (Modeled plus Background), $\mu g/m^3$	NAAQS, $\mu g/m^3$	Percent of NAAQS
PM10	24-Hour [b]	354	90	444	150	296
PM10	Annual	98	28.5	126	50	253
SO2	3-Hour	1,743	374	2,117	1,300	163
SO2	24-Hour	920	120	1,040	365	285
SO2	Annual	125	18.3	144	80	180
NOx	Annual	130	40	170	100	170
CO	1-Hour	7,488	12,700	20,188	40,000	50
CO	8-Hour	3,488	5,726	9,214	10,000	92

1.7 Ozone

[a] Modeling results based on current equipment configuration at TASCO; does not include control measures outlined in the Emission Control Plan submitted to IDEQ by The Amalgamated Sugar Company (TASCO).

[b] Refers to the highest sixth highest concentration over 5 years (1987-1991).

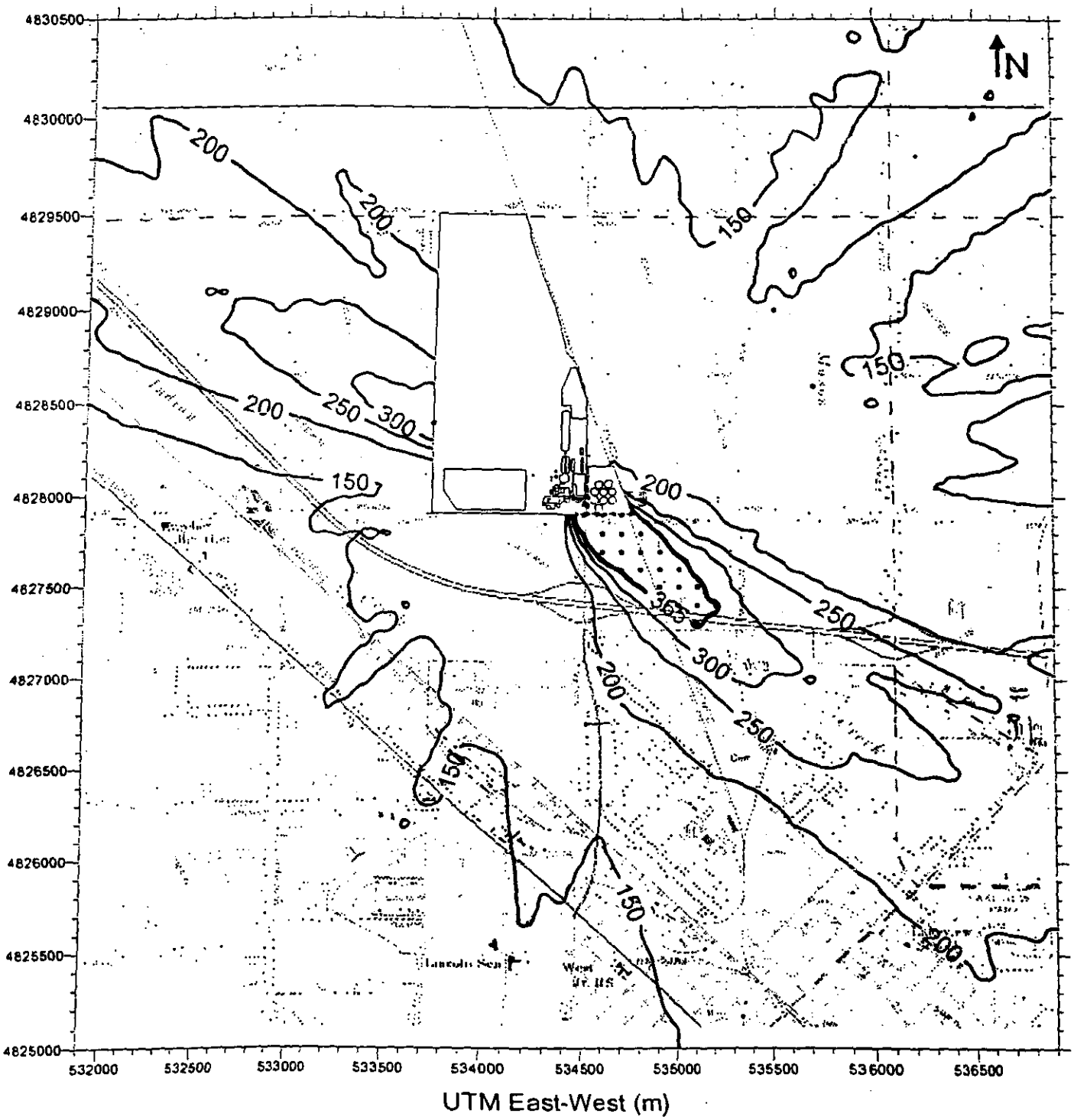


Legend:

50 Lines of equal concentration (i.e., 50 µg/m^3)

• Receptor where concentration exceeds PM10 annual NAAQS of 50 µg/m^3

The Amalgamated Sugar Company (TASCO)		
Annual Average PM10 Concentrations For Basecase For Met. Year 1991 Highest High At Each Receptor (Includes Backgound Concentration)		
Date: 07/05/02	Prepared by: EQM/DEQ	Figure A-2.

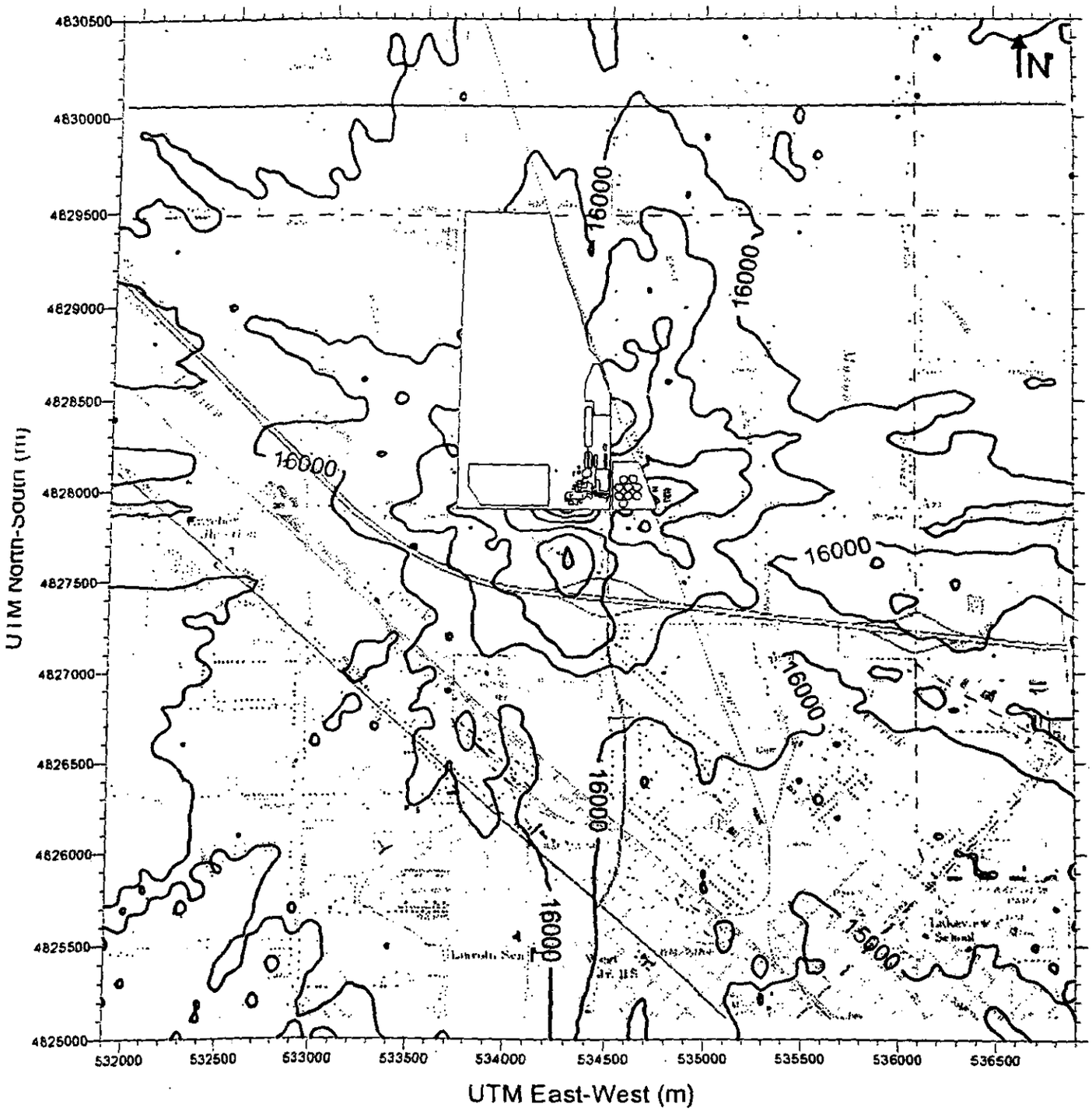


.egend:

150 Lines of equal concentration (i.e., 150 µg/m^3)

• Receptor where concentration exceeds SO2 24-hour NAAQS of 365 µg/m^3

The Amalgamated Sugar Company (TASCO)		
24-Hour Average SO2 Concentrations For Basecase For Met. Year 1990 Highest Second-High At Each Receptor (Includes Backgound Concentration)		
Date: 07/05/02	Prepared by: EQM/DEQ	Figure A-4.



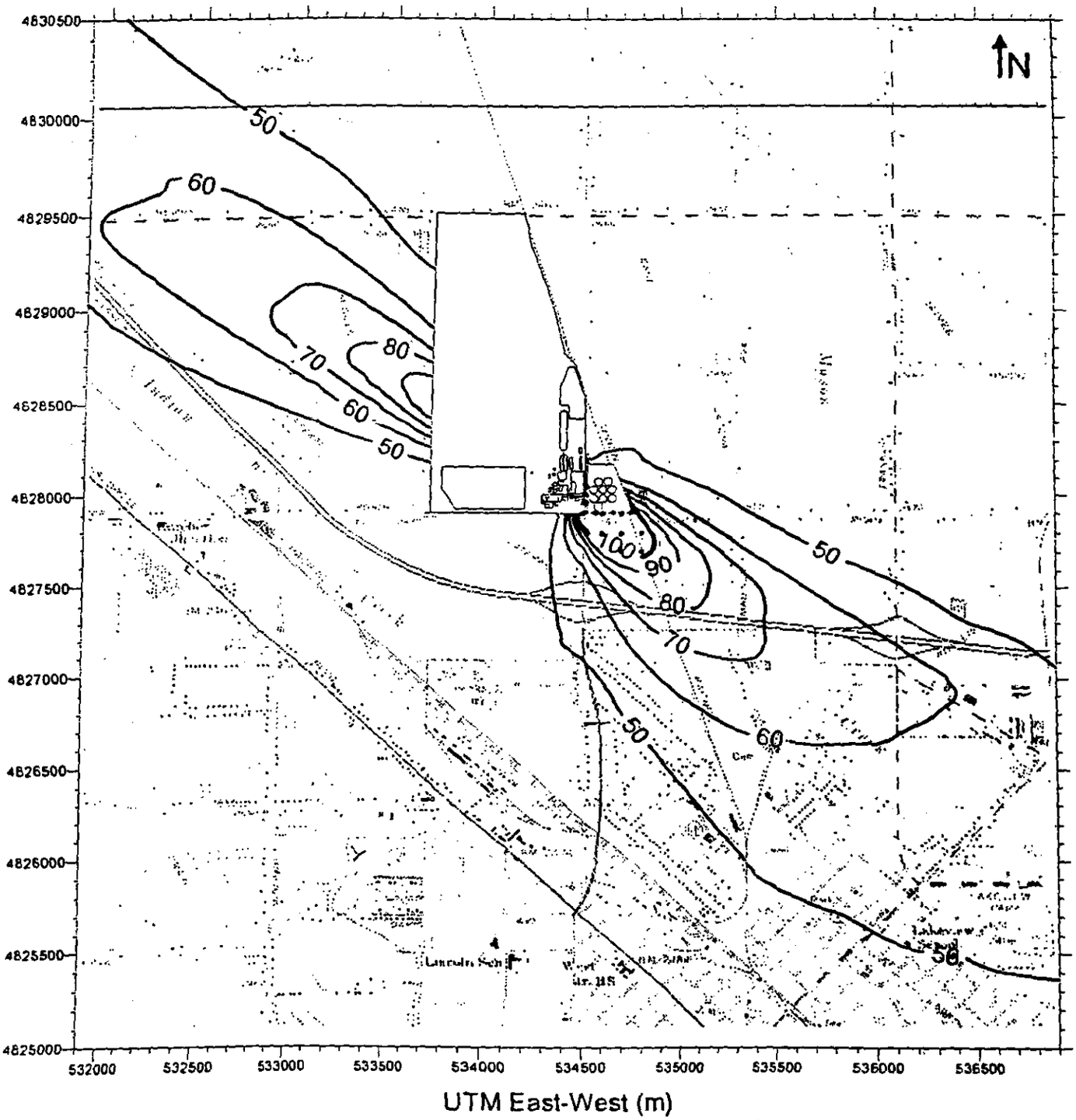
Legend:

150 Lines of equal concentration (i.e., 150 µg/m^3)

• Receptor where concentration exceeds CO 1-hour NAAQS of 40,000 µg/m^3

(There were no basecase CO concentrations including concentrations over the NAAQS.)

The Amalgamated Sugar Company (TASCO)		
1-Hour Average CO Concentrations For Basecase For Met. Year 1989 Highest Second-High At Each Receptor (Includes Backgound Concentration)		
Date: 07/05/02	Prepared by: EQM/DEQ	Figure A-6.



Legend:

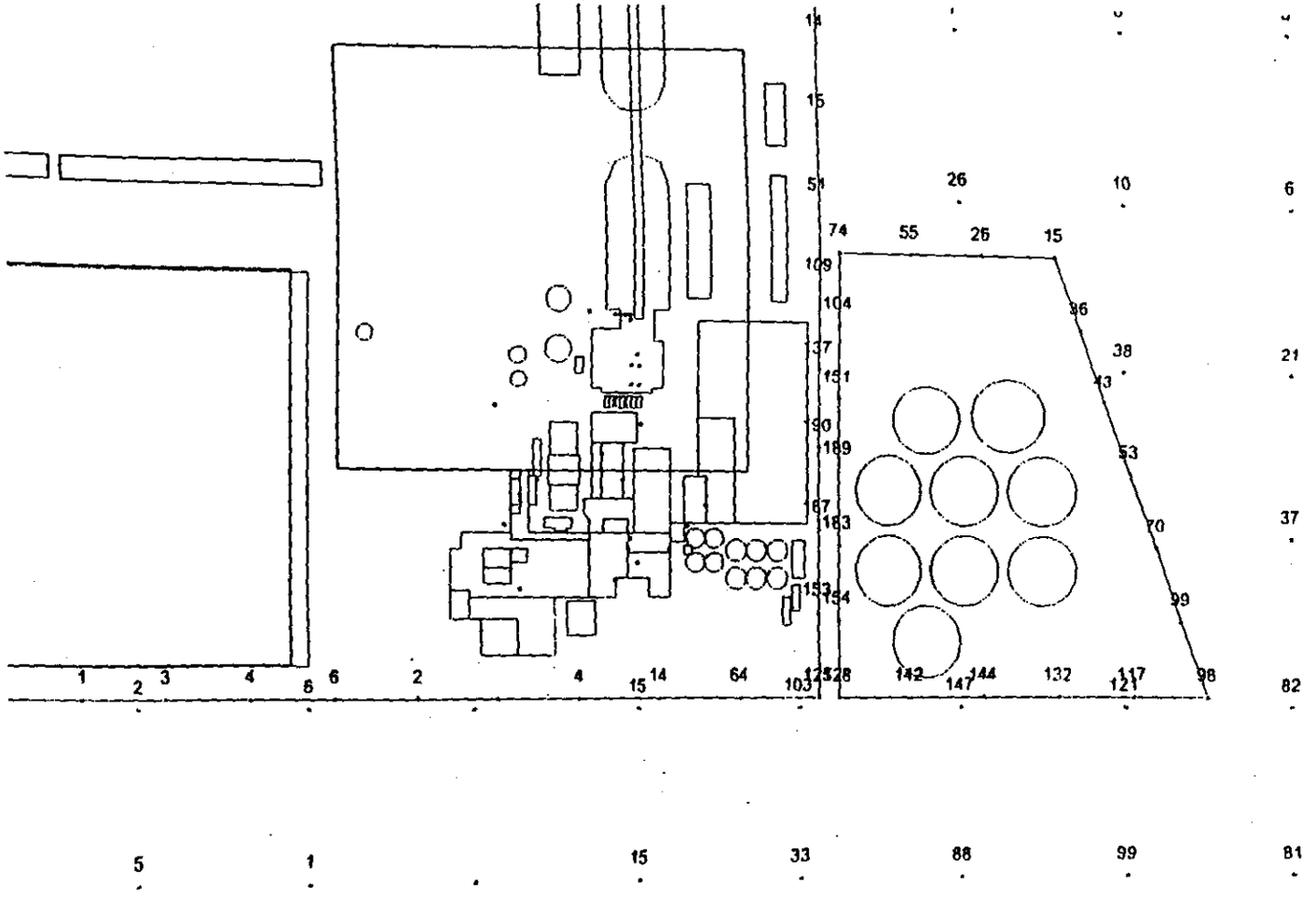
50 Lines of equal concentration (i.e., 50 µg/m^3)

• Receptor where concentration exceeds NOx annual NAAQS of 100 µg/m^3

The Amalgamated Sugar Company (TASCO)		
Annual-Average NOx Concentrations For Basecase For Met. Year 1988 Highest High At Each Receptor (Includes Backgound Concentration)		
Date: 07/05/02	Prepared by: EQM/DEQ	Figure A-8.

Figure A-10. Number of Exceedances Above the NAAQS for 24-hour PM10 Concentrations (near receptors) in 1987

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



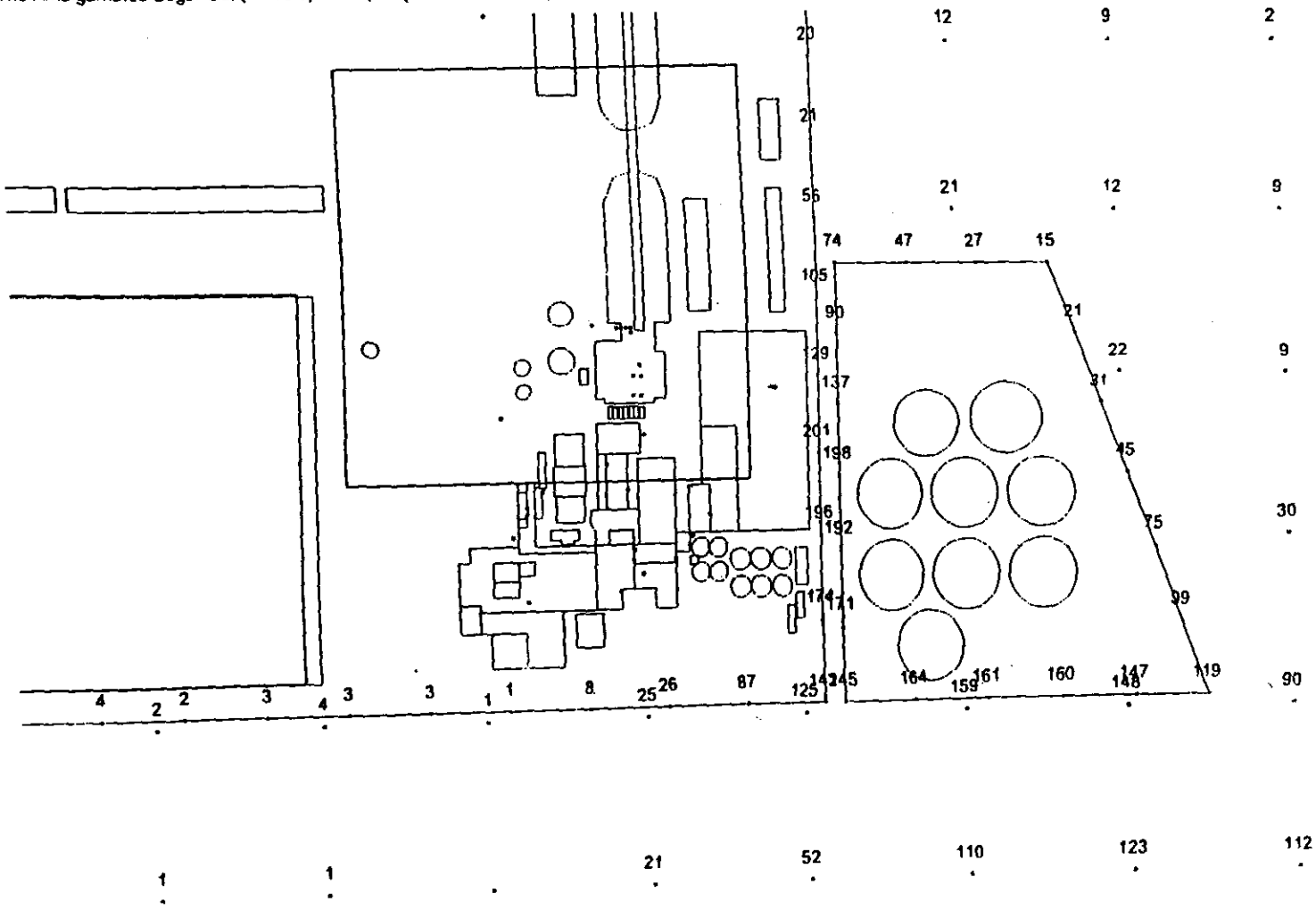
Scale: 1" = 100.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 60.

Figure A-12. Number of Exceedances Above the NAAQS for 24-hour PM10 Concentrations (near receptors) in 1988

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



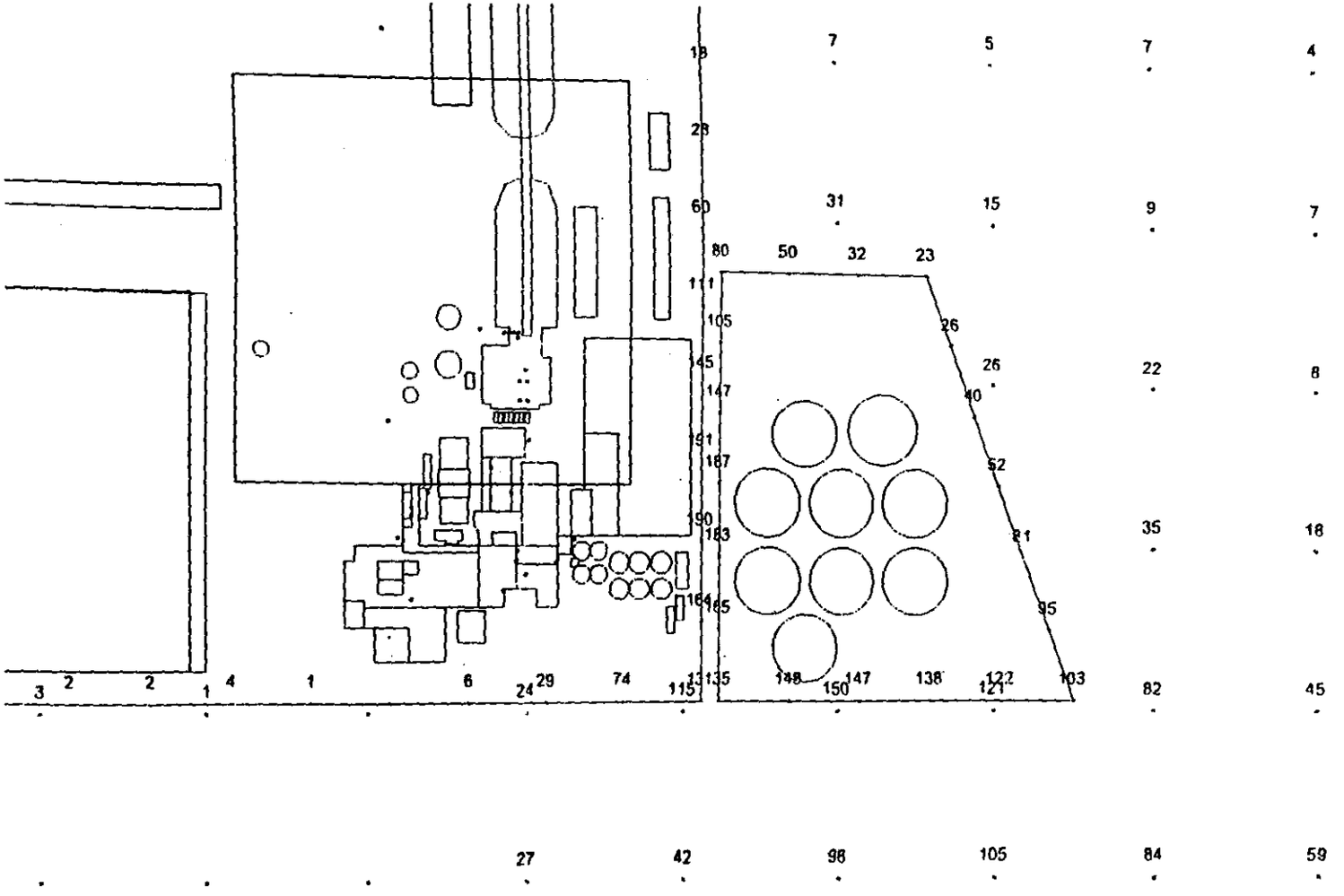
Scale: 1" = 100.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 60.

Figure A-14. Number of Exceedances Above the NAAQS for 24-hour PM10 Concentrations (near receptors) in 1989

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bsl) 7-3-



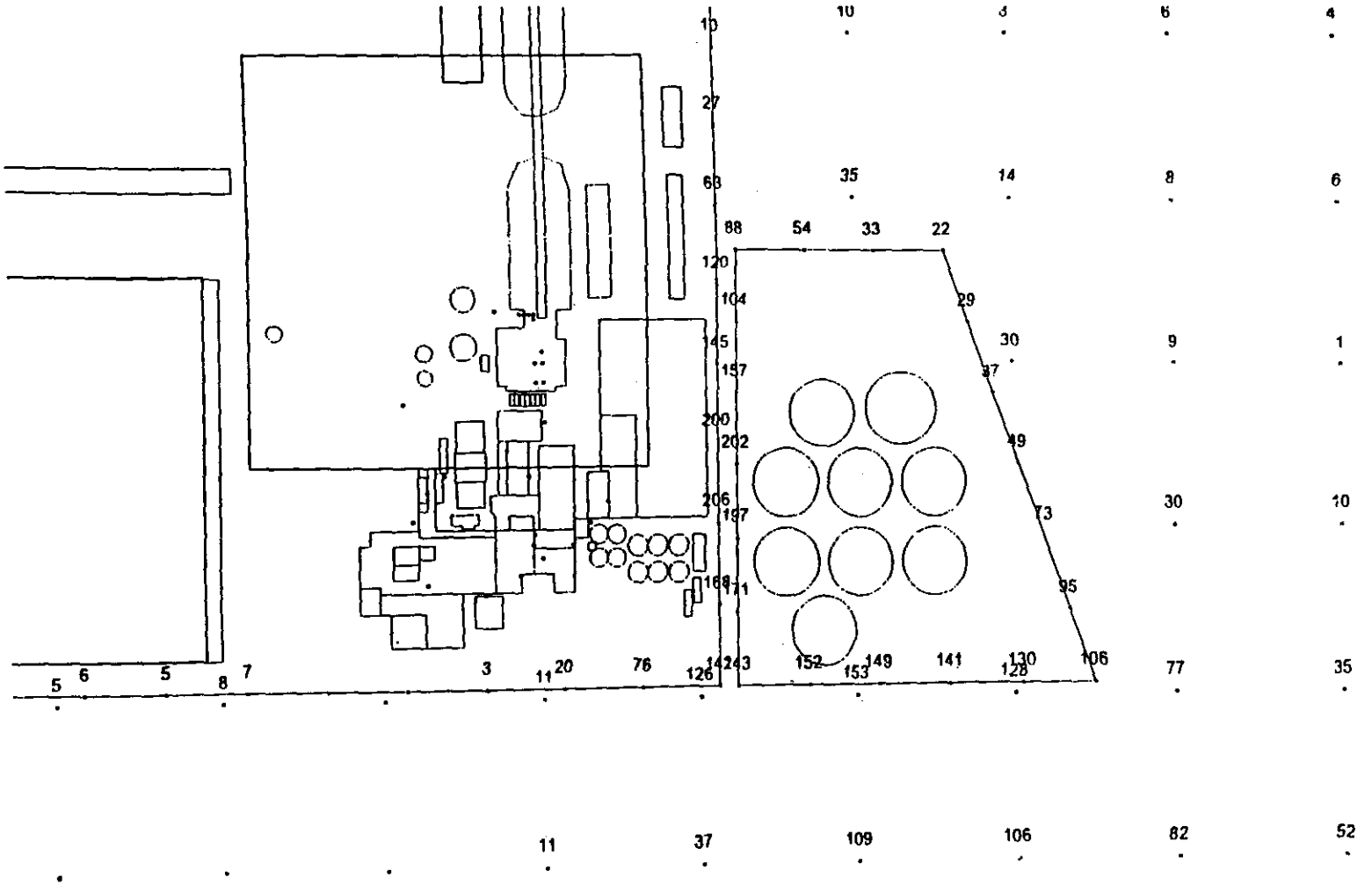
Scale: 1" = 100.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 60.

Figure A-16. Number of Exceedances Above the NAAQS for 24-hour PM10 Concentrations (near receptor) in 1990

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bsl) 7-3-



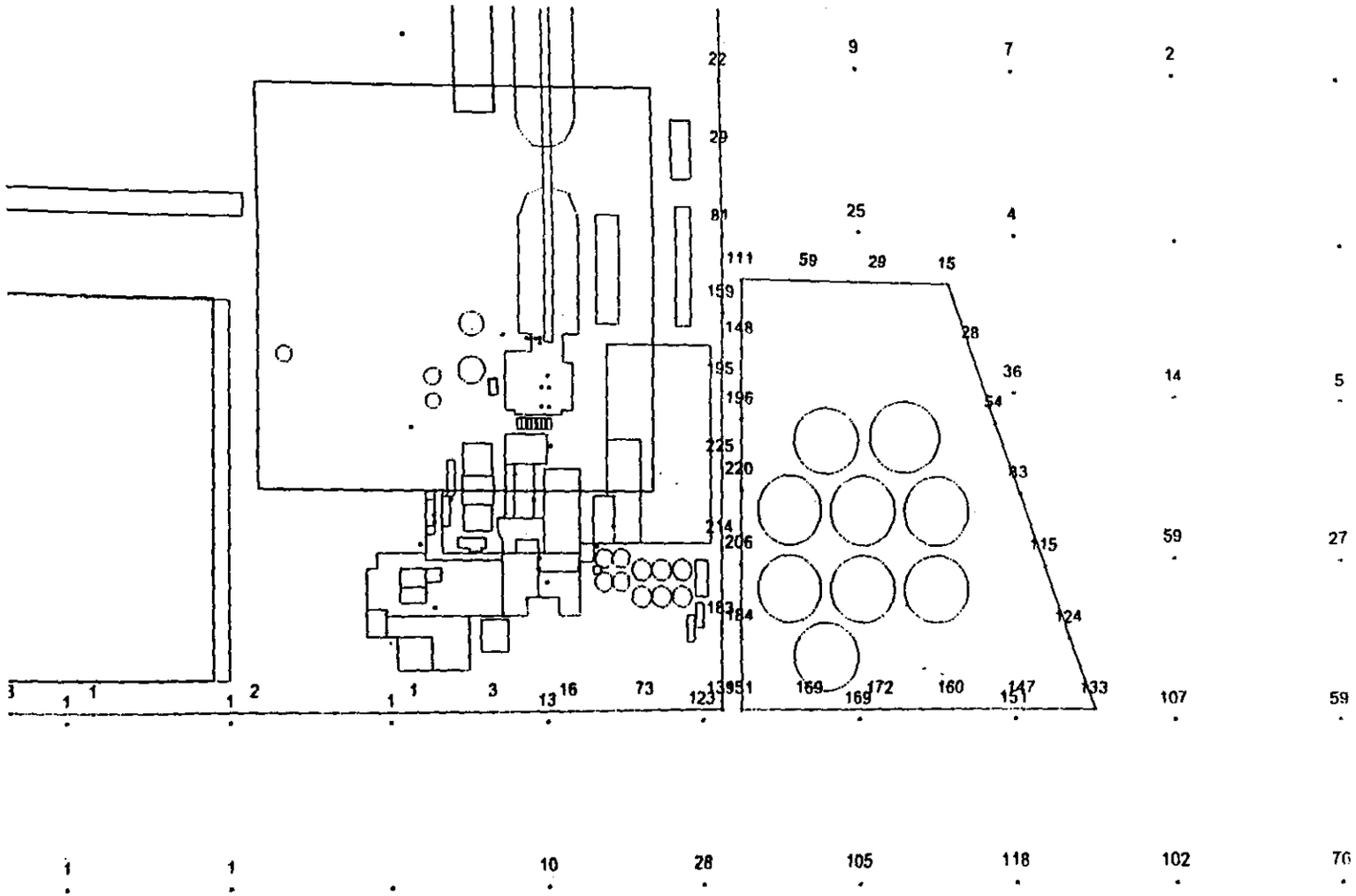
Scale: 1" = 100.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 60.

Figure A-18. Number of Exceedances Above the NAAQS for 24-hour PM10 Concentrations (near receptors) in 1991

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



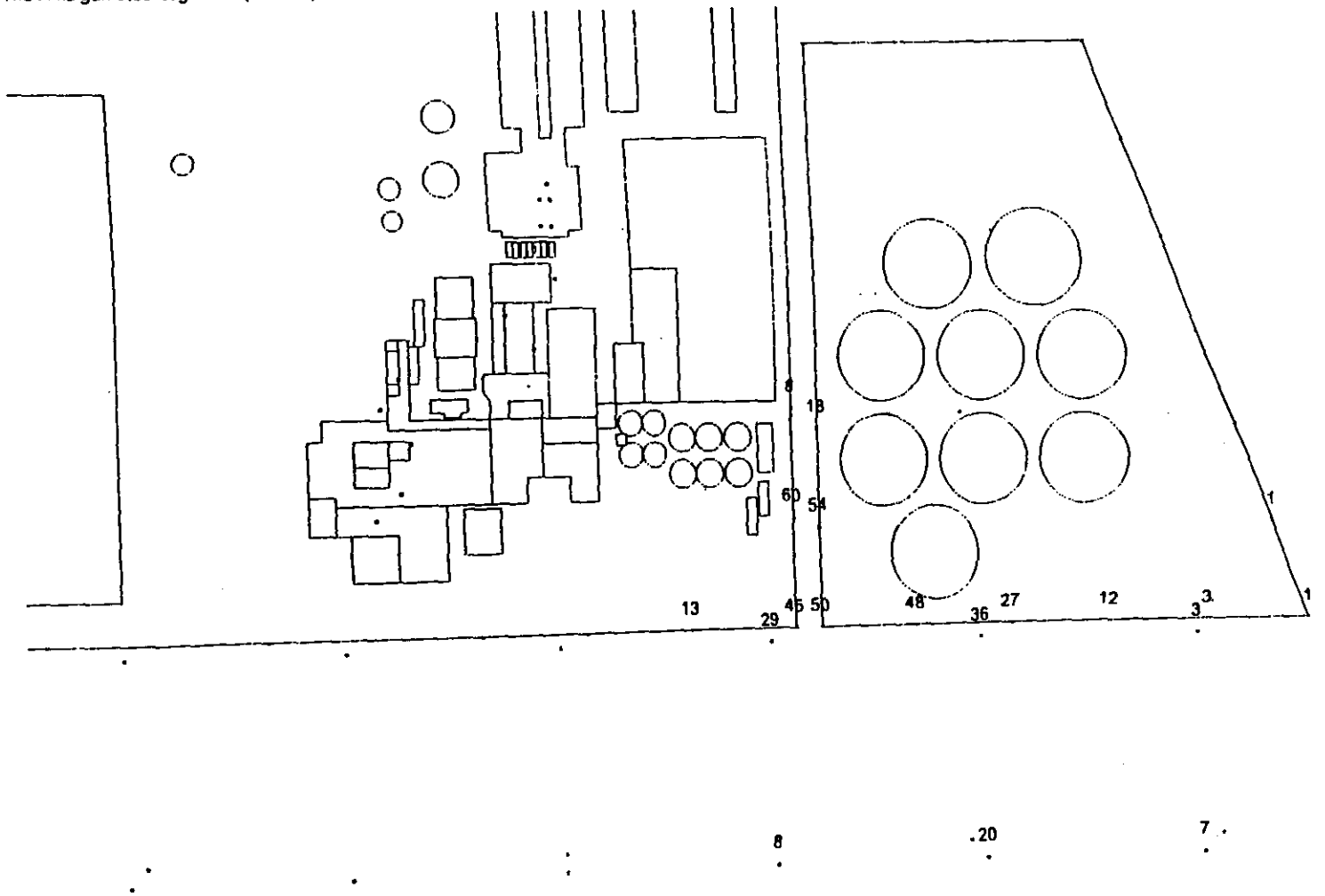
Scale: 1" = 100.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 60.

Figure A-20. Number of Exceedances Above the NAAQS for 3-hour SO2 Concentrations (near receptors) in 1987

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



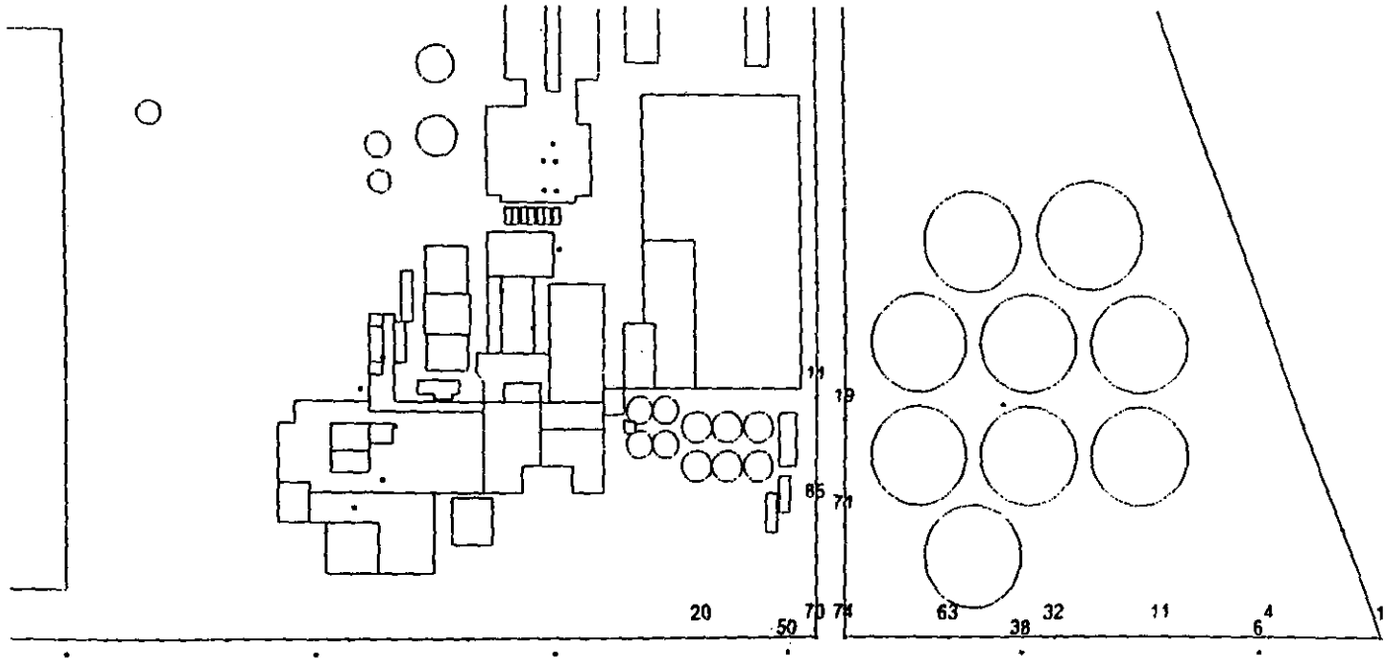
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 3-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 926.

Figure A-22. Number of Exceedances Above the NAAQS for 3-hour SO2 Concentrations (near receptors) in 1988

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



11 20 9

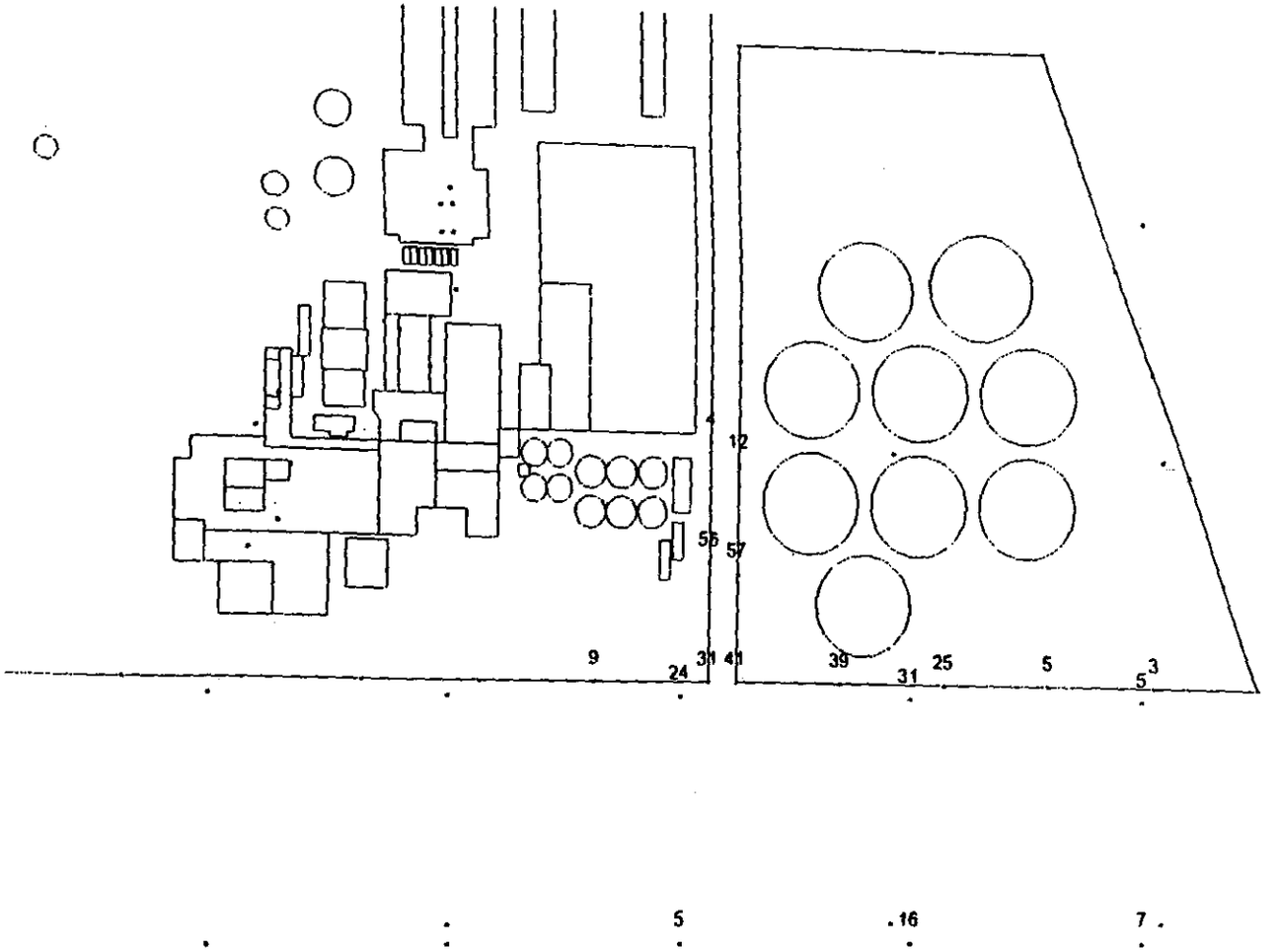
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 3-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 926.

Figure A-24. Number of Exceedances Above the NAAQS for 3-hour SO2 Concentrations (near receptors) in 1989

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



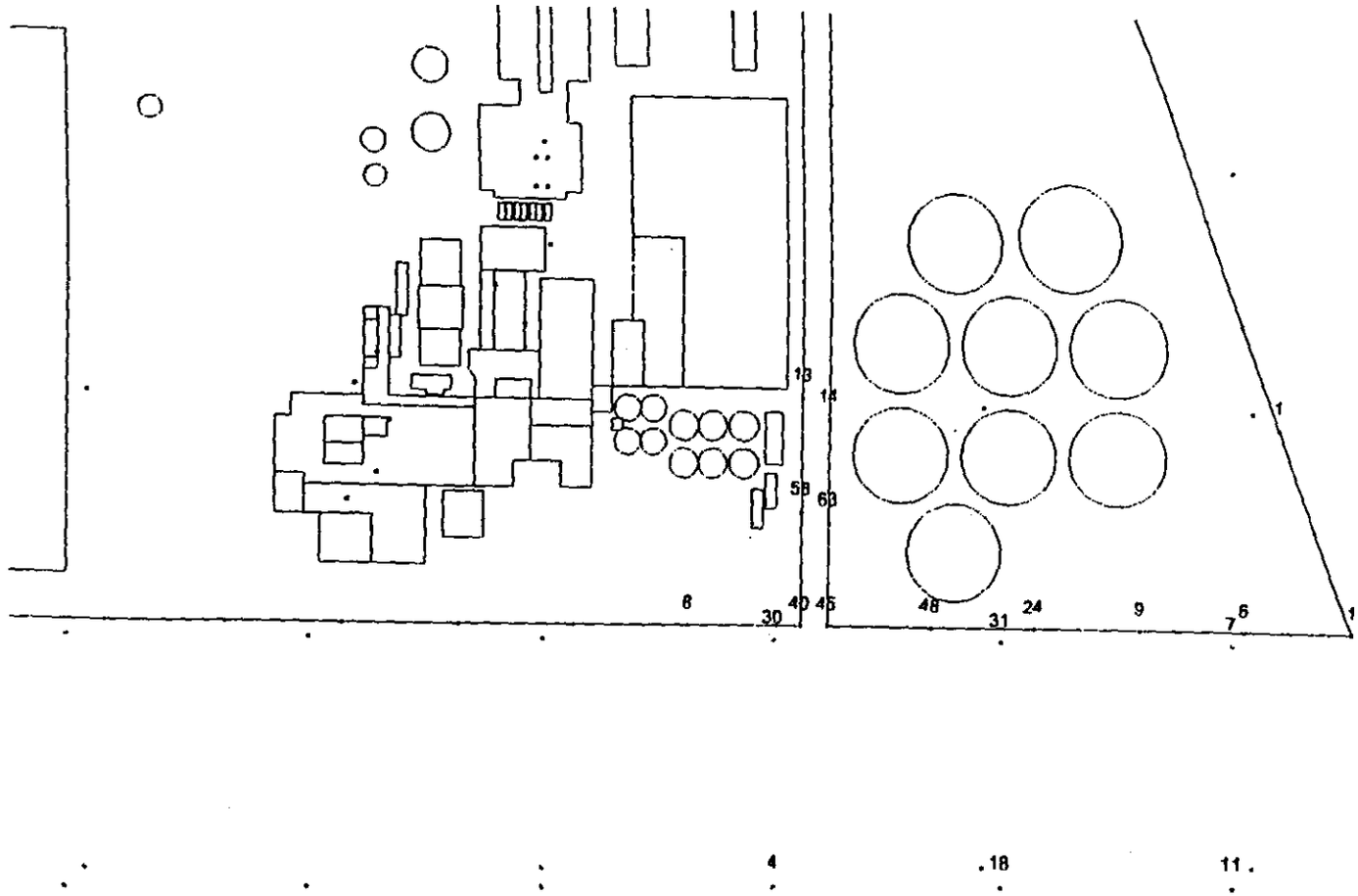
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 3-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 926.

Figure A-26. Number of Exceedances Above the NAAQS for 3-hour SO2 Concentrations (near receptors) in 1990

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



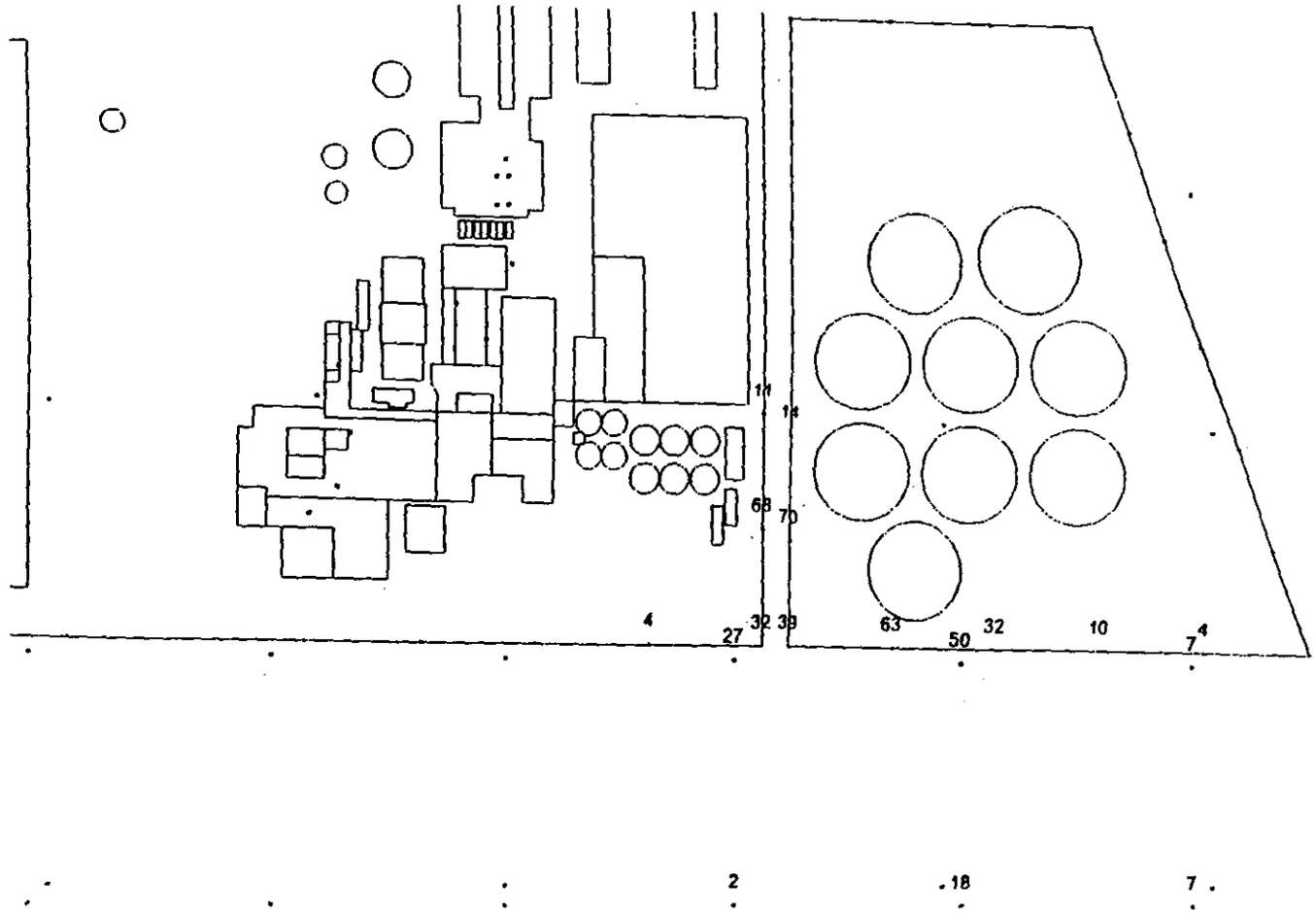
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 3-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 926.

Figure A-28. Number of Exceedances Above the NAAQS for 3-hour SO2 Concentrations (near receptors) in 1991

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bsl) 7-3-



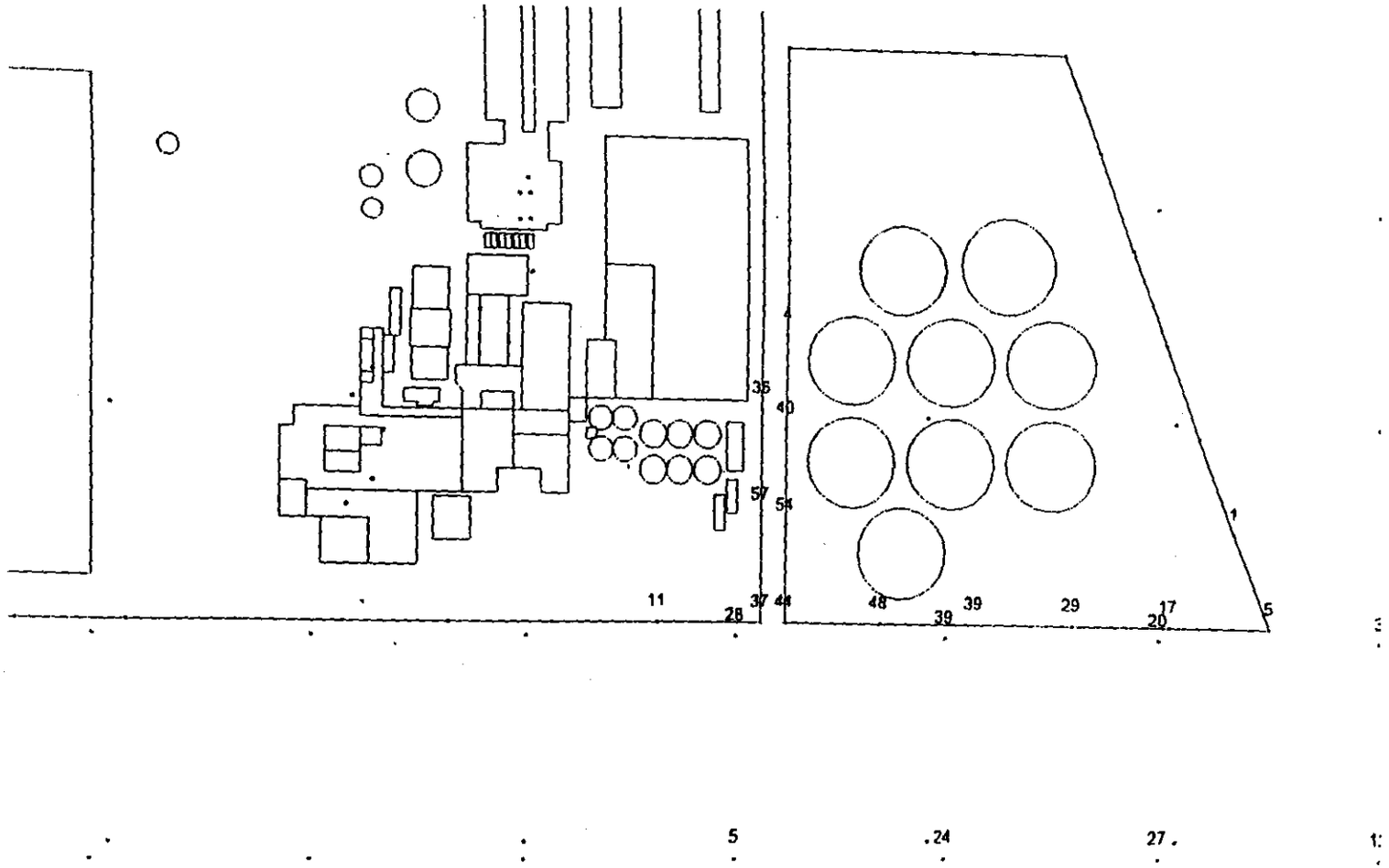
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 3-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 926.

Figure A-30. Number of Exceedances Above the NAAQS for 24-hour SO2 Concentrations (near receptors) in 1987

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



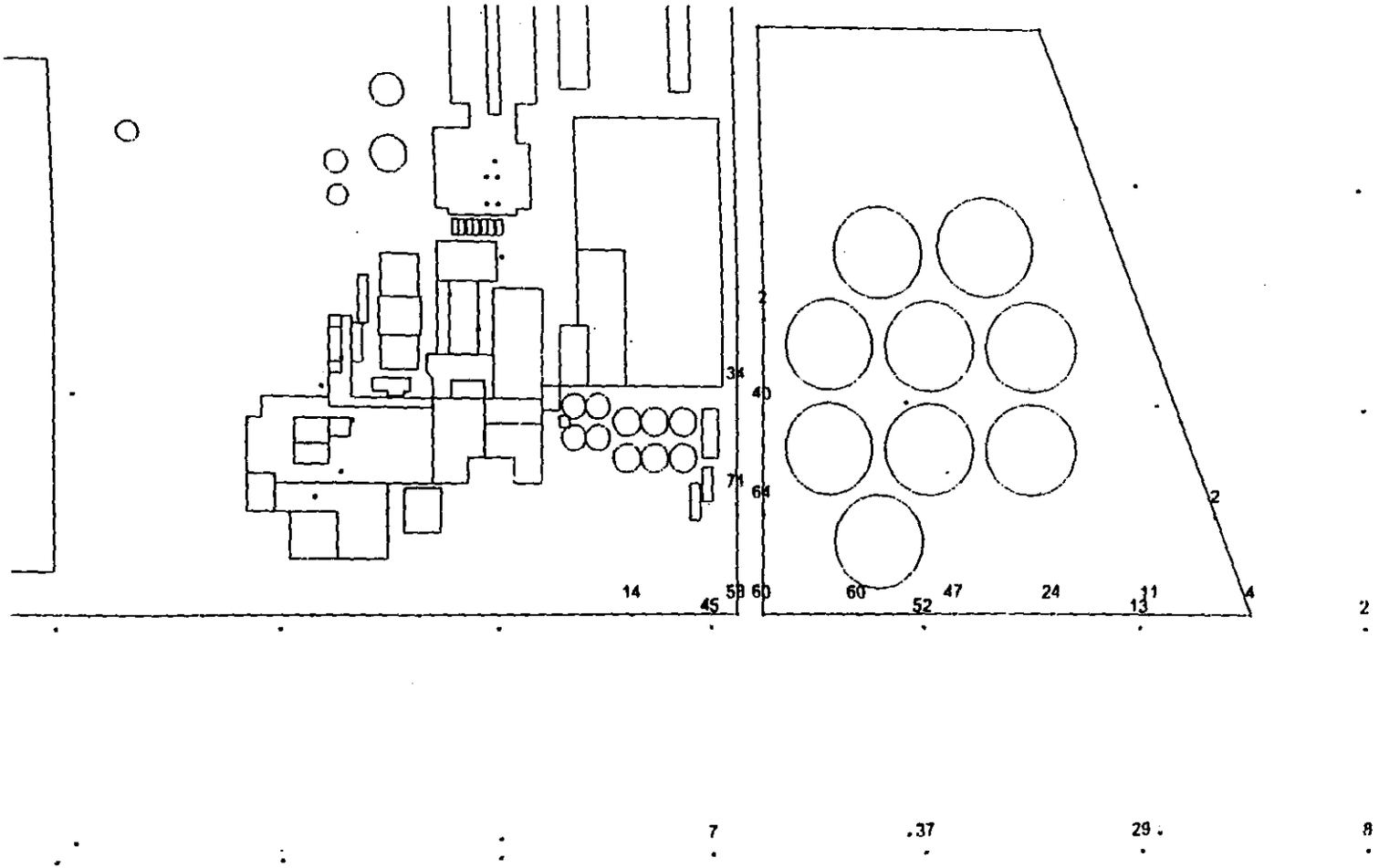
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 245.

Figure A-32. Number of Exceedances Above the NAAQS for 24-hour SO2 Concentrations (near receptors) in 1988

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



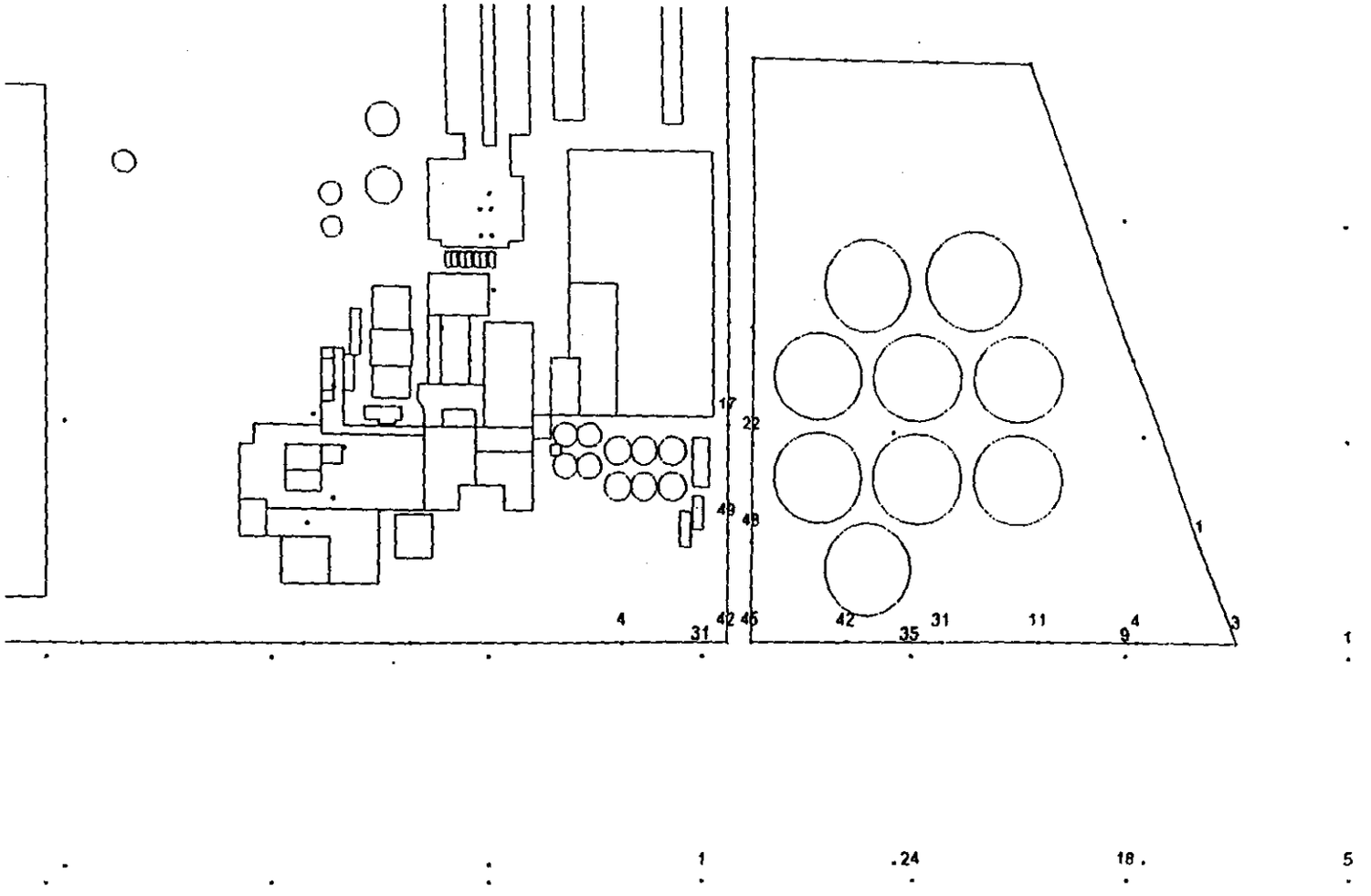
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 245.

Figure A-34. Number of Exceedances Above the NAAQS for 24-hour SO2 Concentrations (near receptors) in 1989

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bst) 7-3-



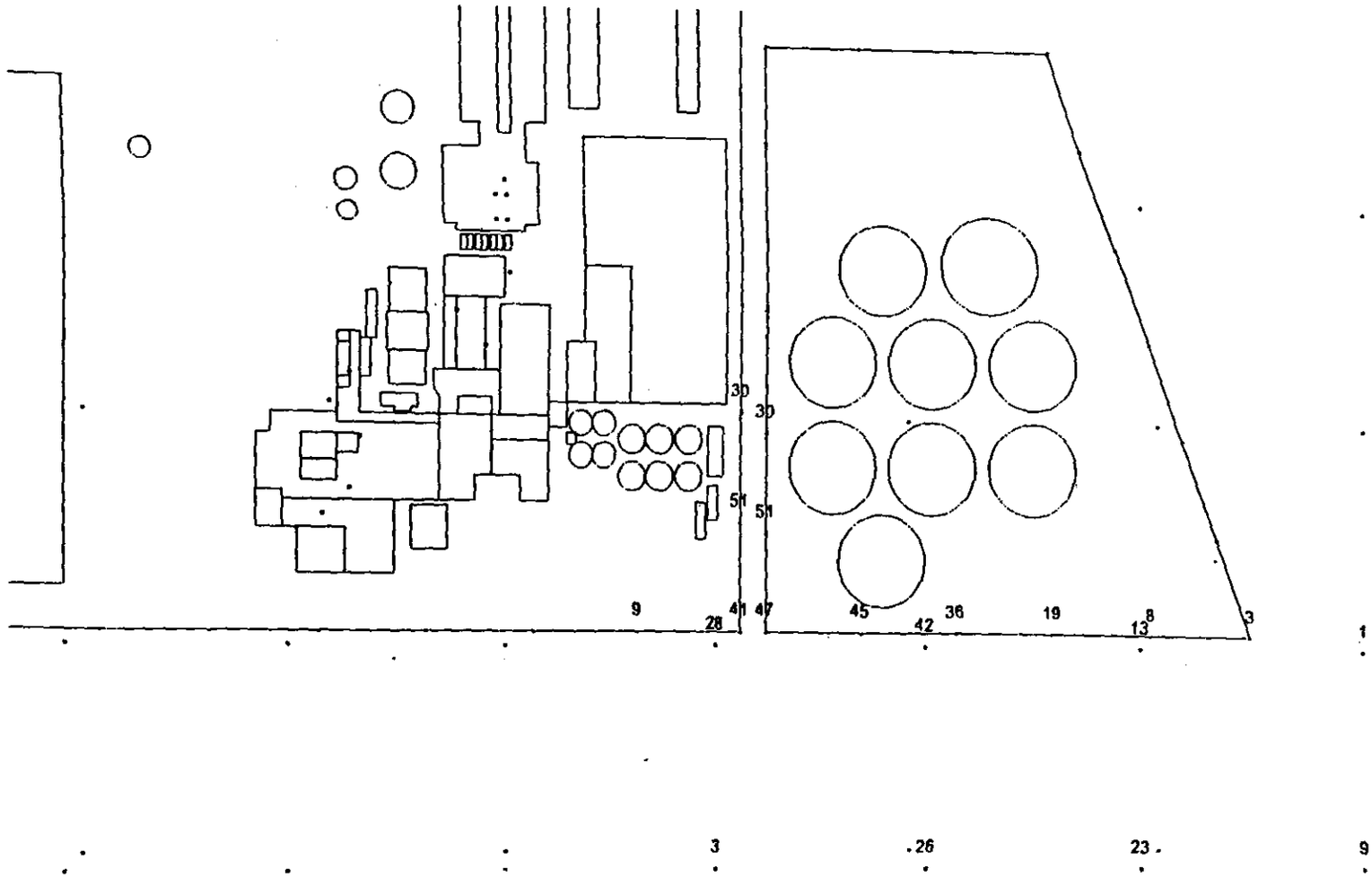
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 245.

Figure A-36. Number of Exceedances Above the NAAQS for 24-hour SO2 Concentrations (near receptors) in 1990

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseF.bsf) 7-3-



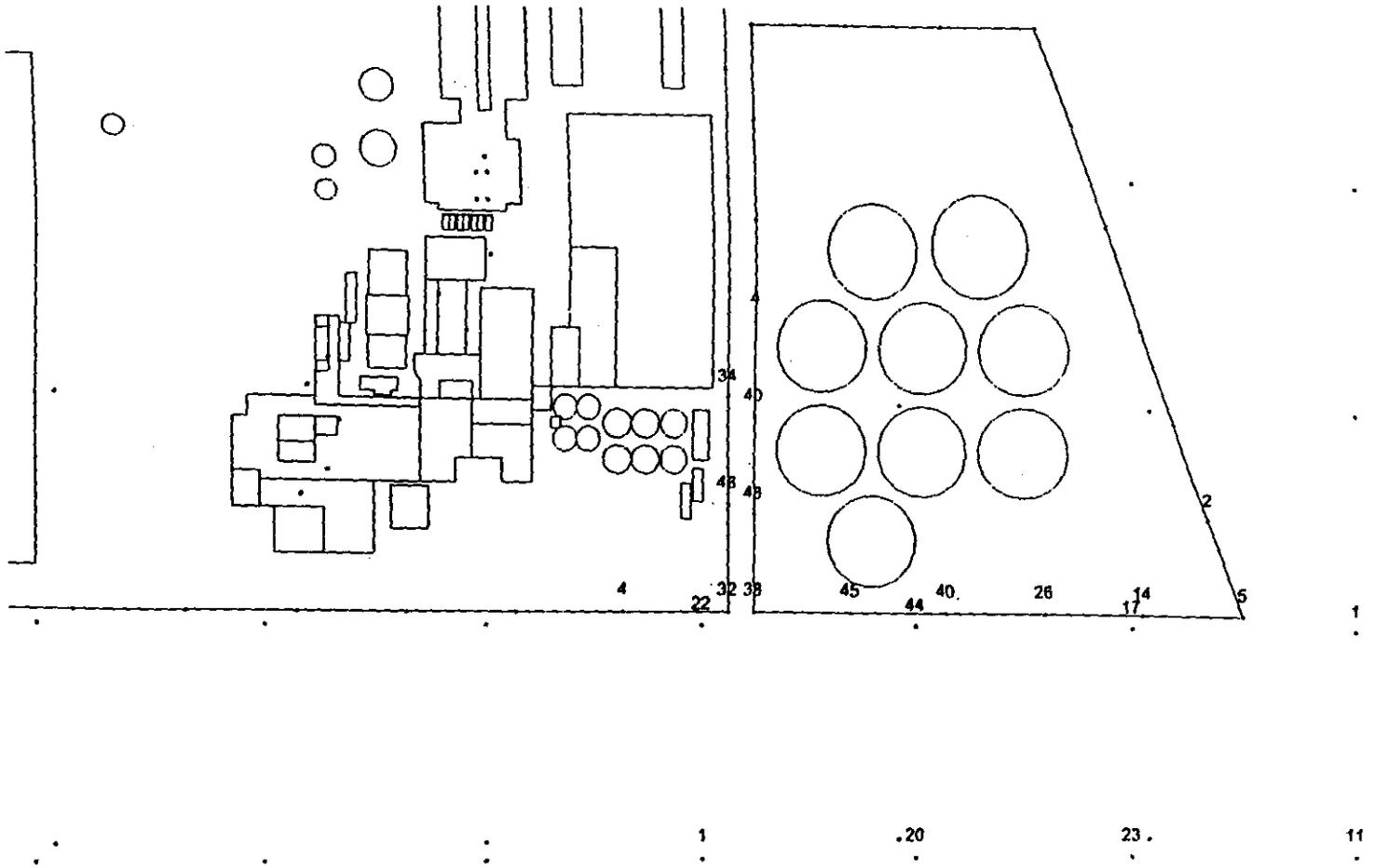
Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 245.

Figure A-38. Number of Exceedances Above the NAAQS for 24-hour SO2 Concentrations (near receptors) in 1991

The Amalgamated Sugar Co. (TASCO) - Nampa (TASCObaseP.bsl) 7-3-



Scale: 1" = 75.0 Meters

HIGH 1ST HIGH 24-HR VALUES FOR GROUP: ALL

Exceedance Threshhold = 245.

APPENDIX C

The Amalgamated Sugar Company Tier II Operating Permit/ T2-010928

Technical Memorandum for the TAPs Analyses

August 9, 2002

MEMORANDUM

To: Steve Ogle, E.I.T.
Associate Engineer

From: Tim Teater
Air Toxics Program Analyst

Subject: TASCO Toxic Air Pollutant Emissions

Background/discussion: Pursuant to TASCO's Tier II operating permit, I was asked to review the facilities Toxic Air Pollutant (TAP) emissions for compliance with Section 161 of the Rules for the Control of Air Pollution in Idaho, as well as potential health risk to the surrounding community. Section 161 states "Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation. (6-30-95) "

After reviewing the TAP emissions inventory data provided, I determined that heavy metals and aldehydes were the compounds of concern based on the potential emissions. After these compounds were identified they were modeled for ambient impacts. Please see the Modeling section entitled "Toxic Pollutants" in the Tier II operating permit tech. memo for details of that modeling. I then reviewed the results of the modeling for compliance with Section 161 and potential health risk to the surrounding community with the following results.

Conclusions/Recommendations: Based on the data provided, aldehydes as a group and individually do not appear to present a health risk to the to the surrounding community and appear to be in compliance with Section 161. Heavy metals appear likewise to be in compliance with Section 161 and do not appear to present a health risk to the to the surrounding community. These determinations are based on a cancer risk no greater than one in one hundred thousand for an existing facility or for non-carcinogens, ambient levels equivalent to those listed in Section 585 of the Rules for the Control of Air Pollution in Idaho. I recommend no further action regarding these TAPs.