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March 27, 2008

Ms. Purva Prabhu
Georgia Department of Natural Resources
Environmental Protection Division
Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, GA 30354

RE: Application No. 17924, dated January 17, 2008
Plant Washington
Sandersville, Georgia
Project No. 6122-07-0007

Dear Ms. Prabhu:

Per your request, on behalf of our client Power4Georgians, LLC (P4G) enclosed are replacement pages for the above referenced air permit application, now including an air toxics assessment for Carbon Monoxide (CO) conducted in accordance with the Georgia *Guideline For Ambient Impact Assessment of Toxic Air Pollutant Emissions*. The results of the toxics assessment indicate modeled concentrations of CO are well below the Acceptable Ambient Concentration (AAC) for all averaging times. Attached to this letter are the following.

1. Revised text for Section 6.0 of the application (Air Toxics Modeling). The following changes were made to Section 6.0.

   a. Page 6-2, including additional text describing the toxics evaluations.

   b. Revisions to Table 6-2 on Pages 6-3, 6-4, and 6-5. Typographical errors were fixed in Table 6-2. CO was added to the end of Table 6-2 on Page 6-5.

   c. A review of Table 6-2 lead to finding errors in the inputs of the refined models for Arsenic and Sulfuric Acid Mist. New refined models were run using the correct values, and are enclosed in the attached CD. Results of the modified refined analysis for Arsenic and Sulfuric Acid Mist are now included in Table 6-3, which still indicate modeled concentrations well below the Acceptable Ambient Concentrations.

2. Exhibit C, Page C-37, now includes CO in Table C-11 (Ambient Air Concentration Development).

The attached CD contains the electronic modeling files for the refined toxics assessments. If you have any questions, please contact me at (770) 421-3335 or Ken Hiltgen at (770) 421-3334.

Sincerely,
MACTEC ENGINEERING AND CONSULTING, INC.

Justin Fickas
Senior Engineer

Ken Hiltgen
Project Manager/Principal

Cc: Michelle Keith GA EPD

MACTEC Engineering and Consulting, Inc.
3200 Town Point Drive NW, Suite 100 • Kennesaw, GA 30144 • Phone: 770.421.3400 • Fax: 770.421.3486 www.mactec.com

6.0 AIR TOXICS MODELING

The proposed project was evaluated for compliance with the Georgia Air Toxics program using the "Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions" dated June 21, 1998. The first step was to calculate the potential emissions of all toxic pollutants from Plant Washington. The calculations are based on USEPA AP-42 emission factors for sub-bituminous coal and fuel oil (distillate) combustion. Exhibit C provides the toxic emission calculations and the development of the AACs for the project.

For each toxic pollutant identified, an allowable ambient concentration was developed by following the Georgia guidelines. The Georgia guidelines prioritize the available resources for toxicity data. First priority is given to inhalation reference concentrations (RfC) and Risk Based Air Concentrations (RBAC), which are identified in the USEPA's Integrated Risk Information System (IRIS) database, followed by OSHA PEL standards, ACGIH TLVs, NIOSH RELs, and LD50 toxicity data. AACs developed from worker exposure levels are based on 40 hours/week of exposure and must be adjusted to account for the potential exposure of the public (7 days/week, 24 hours/day). This correction along with the application of a safety factor of 300 for carcinogenic compounds and 100 for non-carcinogenic compounds is utilized in the development of AACs from worker exposure standards. The safety factor is applied to account for persons who may be sensitive to exposure to these pollutants. Toxicity data taken from the IRIS database does not require any adjustments because exposures to persons with respiratory maladies, young children, or the elderly were taken into account in the determination of these values. Short-term exposures are addressed using OSHA, NIOSH, and ACGIH Short Term Exposure Limits (STEL), and ceiling limits. A safety factor of 10 is universally applied to all short-term standards.

The next step was a dispersion analysis. Each source of pollutants (main boiler and auxiliary boiler) was modeled using the USEPA SCREEN3 model assuming an emission rate of 1 g/s. The model that resulted in the highest Maximum Ground Level Concentration (MGLC) was assumed to be the stack with the poorest dispersion. Table 6-1 below shows the results of this modeling for each of the sources.

Table 6-1 SCREEN3 Modeling Results Summary

Source ID	Source	Stack Height (m)	Stack Dia. (m)	Stack Velocity (m/s)	Stack Temp. (K)	1-Hour MGLC from SCREEN3 Analysis ($\mu g/m^3$)
MAIN	Coal Fired Boiler	137.16	9.14	18.55	333	0.698
AUX	Auxiliary Boiler	27.43	1.52	19.81	408	6.02

Completed by: LMG 1/17/08
Checked by: SAK 1/17/08

As shown, the Auxiliary Boiler was found to have the highest 1-hour MGLC. In order to determine the worst case ambient air concentration for each pollutant, it was assumed that the worst case emission rate for each toxic was emitted out of this stack. For conservatism, even though the auxiliary boiler would not typically be operating whenever the main boiler is operating, it was assumed that both boilers would be operating at full capacity for this analysis. Following the Georgia guidelines, the 1-hour concentration for the actual emission rate from each toxic was determined by a direct ratio of emission rates. The 1-hour MGLC from the SCREEN3 model was adjusted to an annual, 24-hr continuous or short-term (15-min) concentration using the correction factors 0.08, 0.40, and 1.32, respectively. These annual and short-term MGLC's were then compared to the derived AACs and short-term limits. The results of this analysis are summarized in Table 6-2, which shows levels below the AACs for all compounds except hydrogen chloride, sulfuric acid, arsenic, hexavalent chromium, and carbon monoxide.

As per the Georgia guidelines, ISCST3 modeling was completed for these pollutants. The results of the analysis for the ISCST3 models are shown below in Table 6-3. The results of these models demonstrate compliance with the Georgia air toxics program.

Table 6-2 Toxic Emissions Summary

Pollutant	Main Boiler (g/s)	Auxiliary Boiler (g/s)	Total Emissions (lb/hr)	Total Emission (g/s)	1-Hr MGLC (mg/m^3)	Annual MGLC (mg/m^3)	AAC Annual (mg/m^3)	% of allowable AAC	24-Hr MGLC (mg/m^3)	AAC 24-hour (mg/m^3)	% of allowable AAC	15-Min MGLC (mg/m^3)	Short (15-min) Term Limit (mg/m^3)	% of allowable Short Term Limit	Is Refined Modeling Required ?
Organics															
Acenaphthene	2.8E-05	4.56E-06	2.56E-04	3.23E-05	1.94E-07	1.55E-08	-	-	7.77E-08	0.04	1.88E-04 %	2.56E-07	-	-	NO
Acenaphthylene	1.4E-05	5.46E-08	1.08E-04	1.36E-05	8.21E-08	6.57E-09	-	-	3.28E-08	0.12	2.70E-05 %	1.08E-07	-	-	NO
Acetaldehyde	3.1E-02	-	2.46E-01	3.10E-02	1.86E-04	1.49E-05	4.55E-03	0.33%	7.46E-05	-	-	2.46E-04	4.50	5.47E-03 %	NO
Acetophenone	8.1E-04	-	6.47E-03	8.15E-04	4.91E-06	3.93E-07	-	-	1.96E-06	0.12	1.68E-03 %	6.48E-06	-	-	NO
Acrolein	1.58E-02	-	1.25E-01	1.57E-02	9.49E-05	7.59E-06	2.00E-05	37.95%	3.80E-05	-	-	1.25E-04	0.02	0.55%	NO
Ammonia	6.43	-	5.11E+01	6.43E+00	3.88E-02	3.10E-03	1.00E-01	3.10%	1.55E-02	-	-	5.12E-02	2.44	2.10%	NO
Anthracene	1.14E-05	2.64E-07	9.26E-05	1.17E-05	7.03E-08	5.62E-09	-	-	2.81E-08	4.76E-04	5.90E-03 %	9.28E-08	-	-	NO
Benzene	7.06E-02	4.62E-05	5.61E-01	7.06E-02	4.26E-04	3.40E-05	4.55E-04	7.49%	1.70E-04	-	-	5.62E-04	1.60	3.52E-02 %	NO
Benzo(a)anthracene	4.7E-06	8.66E-07	4.41E-05	5.56E-06	3.35E-08	2.68E-09	-	-	1.34E-08	4.76E-04	2.81E-03 %	4.42E-08	-	-	NO
Benzo(a)pyrene	2.1E-06	-	1.64E-05	2.06E-06	1.24E-08	9.95E-10	-	-	4.97E-09	4.76E-04	1.04E-03 %	1.64E-08	-	-	NO
Benzo(g,h,i)perylene	2.6E-06	4.88E-07	2.49E-05	3.13E-06	1.89E-08	1.51E-09	-	-	7.55E-09	6.21E-04	1.21E-03 %	2.49E-08	-	-	NO
Benzo(g,h,i)pyrene	1.5E-06	-	1.16E-05	1.47E-06	8.83E-09	7.07E-10	-	-	3.53E-09	6.21E-04	5.69E-04 %	1.17E-08	-	-	NO
Benzo(b,k)fluoranthene	6.0E-06	3.20E-07	5.00E-05	6.29E-06	3.79E-08	3.03E-09	-	-	1.52E-08	4.76E-04	3.18E-03 %	5.00E-08	-	-	NO
Benzyl chloride	3.8E-02	-	3.02E-01	3.80E-02	2.29E-04	1.83E-05	-	-	9.16E-05	1.19E-02	0.77%	3.02E-04	0.50	6.05E-02 %	NO
Biphenyl	9.2E-05	-	7.33E-04	9.23E-05	5.56E-07	4.45E-08	-	-	2.22E-07	2.38E-03	9.34E-03 %	7.34E-07	-	-	NO
bis(2-Ethylhexyl)phthalate	4.0E-03	-	3.15E-02	3.96E-03	2.39E-05	1.91E-06	-	-	9.55E-06	1.19E-02	8.02E-02 %	3.15E-05	1.00	3.15E-03 %	NO
Bromoform	2.1E-03	-	1.68E-02	2.12E-03	1.28E-05	1.02E-06	7.00E-02	1.46E-03 %	5.10E-06	-	-	1.68E-05	-	-	NO
2-Butanone (MEK)	2.1E-02	-	1.68E-01	2.12E-02	1.28E-04	1.02E-05	5.00	2.04E-04 %	5.10E-05	-	-	1.68E-04	88.47	1.90E-04 %	NO
Carbon disulfide	7.1E-03	-	5.60E-02	7.06E-03	4.25E-05	3.40E-06	0.70	4.86E-04 %	1.70E-05	-	-	5.61E-05	9.33	6.02E-04 %	NO
Chlorobenzene	1.2E-03	-	9.48E-03	1.19E-03	7.20E-06	5.76E-07	-	-	2.88E-06	0.83	3.45E-04 %	9.50E-06	-	-	NO
Chloroform	3.2E-03	-	2.54E-02	3.20E-03	1.93E-05	1.54E-06	4.35E-04	0.36%	7.72E-06	-	-	2.55E-05	24.00	1.06E-04 %	NO
Chloromethane	2.9E-02	-	2.28E-01	2.88E-02	1.73E-04	1.39E-05	-	-	6.94E-05	0.49	1.41E-02 %	2.29E-04	41.40	5.53E-04 %	NO
2-Chloroacetophenone	3.8E-04	-	3.02E-03	3.80E-04	2.29E-06	1.83E-07	3.01E-05	0.61%	9.16E-07	-	-	3.02E-06	-	-	NO
Chrysene	5.4E-06	5.14E-07	4.72E-05	5.94E-06	3.58E-08	2.87E-09	-	-	1.43E-08	4.76E-04	3.01E-03 %	4.73E-08	-	-	NO
Cumene	2.9E-04	-	2.28E-03	2.88E-04	1.73E-06	1.39E-07	0.40	3.47E-05 %	6.94E-07	-	-	2.29E-06	-	-	NO
Cyanide	1.4E-01	-	1.08E+00	1.36E-01	8.18E-04	6.54E-05	-	-	3.27E-04	5.80E-04	56.41%	1.08E-03	-	-	NO
Dibenzo(a,h)anthracene	2.0E-06	3.61E-07	1.84E-05	2.31E-06	1.39E-08	1.12E-09	-	-	5.58E-09	4.76E-04	1.17E-03 %	1.84E-08	-	-	NO
Dimethyl sulfate	2.6E-03	-	2.07E-02	2.61E-03	1.57E-05	1.26E-06	-	-	6.28E-06	1.19E-02	5.28E-02 %	2.07E-05	-	-	NO
2,4-Dinitrotoluene	1.5E-05	-	1.21E-04	1.52E-05	9.16E-08	7.33E-09	-	-	3.66E-08	3.57E-03	1.03E-03 %	1.21E-07	-	-	NO

Completed by: LMG 3/25/08
Checked by: JDF 3/25/08

Table 6-2 Toxic Emissions Summary (continued)

Pollutant	Main Boiler (g/s)	Auxiliary Boiler (g/s)	Total Emissions (lb/hr)	Total Emsission (g/s)	1-Hr MGLC (mg/m^3)	Annual MGLC (mg/m^3)	AAC Annual (mg/m^3)	% of allowable AAC	24-Hr MGLC (mg/m^3)	AAC 24-hour (mg/m^3)	% of allowable AAC	15-Min MGLC (mg/m^3)	Short (15-min) Term Limit (mg/m^3)	% of allowable Short Term Limit	Is Refined Modeling Required ?
Ethylbenzene	5.1E-03	1.37E-05	4.06E-02	5.12E-03	3.08E-05	2.47E-06	1.00	2.47E-04 %	1.23E-05	-	-	4.07E-05	54.27	7.50E-05 %	NO
Ethyl Chloride	2.3E-03	-	1.81E-02	2.28E-03	1.37E-05	1.10E-06	10.00	1.10E-05 %	5.50E-06	-	-	1.81E-05	-	-	NO
Ethylene dichloride	2.2E-03	-	1.72E-02	2.17E-03	1.31E-05	1.05E-06	-	-	5.23E-06	0.10	5.43E-03 %	1.73E-05	-	-	NO
Ethylene dibromide	6.5E-05	-	5.17E-04	6.52E-05	3.93E-07	3.14E-08	-	-	1.57E-07	0.37	4.29E-05 %	5.18E-07	23.07	2.25E-06 %	NO
Fluoranthene	3.9E-05	1.05E-06	3.14E-04	3.96E-05	2.39E-07	1.91E-08	-	-	9.54E-08	0.01	1.38E-03 %	3.15E-07	-	-	NO
Fluorene	4.9E-05	9.66E-07	4.00E-04	5.04E-05	3.04E-07	2.43E-08	-	-	1.21E-07	4.76E-04	2.55E-02 %	4.01E-07	-	-	NO
Formaldehyde	3.86E-02	7.13E-03	3.63E-01	4.57E-02	2.76E-04	2.20E-05	7.69E-04	2.87%	1.10E-04	-	-	3.64E-04	0.25	0.15%	NO
Hexane	3.6E-03	-	2.89E-02	3.64E-03	2.19E-05	1.75E-06	0.20	8.79E-04 %	8.77E-06	-	-	2.89E-05	352.47	8.21E-06 %	NO
Hydrogen chloride	65.17	-	5.17E+02	6.52E+01	3.93E-01	3.14E-02	2.00E-02	157.43%	1.57E-01	-	-	5.18E-01	0.70	74.03%	YES
Indeno(1,2,3,c,d)pyrene	3.3E-06	4.62E-07	3.00E-05	3.78E-06	2.27E-08	1.82E-09	-	-	9.10E-09	4.76E-04	1.91E-03 %	3.00E-08	-	-	NO
Isophorone	3.2E-02	-	2.50E-01	3.15E-02	1.90E-04	1.52E-05	-	-	7.59E-05	0.33	2.28E-02 %	2.50E-04	2.83	8.86E-03 %	NO
Methyl Bromide	8.69E-03	-	6.90E-02	8.69E-03	5.23E-05	4.19E-06	-	-	2.09E-05	9.24E-03	0.23%	6.91E-05	8.00	8.64E-04 %	NO
Methyl hydrazine	9.2E-03	-	7.33E-02	9.23E-03	5.56E-05	4.45E-06	-	-	2.22E-05		-	7.34E-05	0.04	0.21%	NO
MMA	1.1E-03	-	8.62E-03	1.09E-03	6.54E-06	5.23E-07	0.70	7.48E-05 %	2.62E-06	-	-	8.64E-06	40.95	2.11E-05 %	NO
MTBE	1.9E-03	-	1.51E-02	1.90E-03	1.15E-05	9.16E-07	3.00	3.05E-05 %	4.58E-06	-	-	1.51E-05	-	-	NO
Methylene chloride	1.6E-02	-	1.25E-01	1.57E-02	9.49E-05	7.59E-06	1.33E-03	0.57%	3.80E-05	-	-	1.25E-04	43.38	2.89E-04 %	NO
Naphthalene	1.3E-03	2.44E-04	1.24E-02	1.57E-03	9.43E-06	7.55E-07	3.01E-03	0.03%	3.77E-06	-	-	1.25E-05	7.86	1.58E-04 %	NO
5-Methyl chrysene	1.2E-06	-	9.48E-06	1.19E-06	7.20E-09	5.76E-10	-	-	2.88E-09	4.76E-04	6.05E-04 %	9.50E-09	-	-	NO
OCDD	3.6E-09	-	2.88E-08	3.63E-09	2.18E-11	1.75E-12	-	-	8.74E-12	6.90E-02	1.27E-08 %	2.88E-11	-	-	NO
Phenanthrene	1.5E-04	2.27E-06	1.18E-03	1.49E-04	8.97E-07	7.18E-08	-	-	3.59E-07	4.76E-04	7.53E-02 %	1.18E-06	-	-	NO
Phenol	8.7E-04	-	6.90E-03	8.69E-04	5.23E-06	4.19E-07	-	-	2.09E-06	4.52E-02	4.63E-03 %	6.91E-06	6.00	1.15E-04 %	NO
Propionaldehyde	2.1E-02	-	1.64E-01	2.06E-02	1.24E-04	9.95E-06	-	-	4.97E-05	0.11	0.04%	1.64E-04	-	-	NO
Pyrene	1.8E-05	9.18E-07	1.50E-04	1.88E-05	1.13E-07	9.08E-09	-	-	4.54E-08	4.76E-04	0.01%	1.50E-07	-	-	NO
Styrene	1.4E-03	-	1.08E-02	1.36E-03	8.18E-06	6.54E-07	-	-	3.27E-06	-	-	1.08E-05	85.20	1.27E-05 %	NO
Sulfuric Acid (H_2SO_4) [1]	5.23	1.81E-03	4.15E+01	5.23E+00	3.15E-02	2.52E-03	-	-	1.26E-02	2.38E-03	529.36%	4.16E-02	-	-	YES
Tetrachloroethylene	2.3E-03	-	1.85E-02	2.34E-03	1.41E-05	1.13E-06	-	-	5.63E-06	1.61	3.49E-04 %	1.86E-05	135.60	1.37E-05 %	NO
Toluene	1.3E-02	1.34E-03	1.14E-01	1.44E-02	8.66E-05	6.93E-06	5.00	1.39E-04 %	3.46E-05	-	-	1.14E-04	113.10	1.01E-04 %	NO
1,1,1-Trichloroethane	1.1E-03	5.10E-05	9.03E-03	1.14E-03	6.85E-06	5.48E-07	-	-	2.74E-06	4.52	6.06E-05 %	9.04E-06	190.00	4.76E-06 %	NO
Vinyl acetate	4.1E-04	-	3.28E-03	4.13E-04	2.49E-06	1.99E-07	0.20	9.97E-05 %	9.95E-07	-	-	3.28E-06	5.28	6.21E-05 %	NO
Xylene	2.0E-03	4.10E-05	1.63E-02	2.05E-03	1.24E-05	9.88E-07	0.10	9.74E-04 %	4.94E-06	-	-	1.63E-05	65.13	2.50E-05 %	NO

Completed by: LMG 3/25/08
Checked by: JDF 3/25/08

Table 6-2 Toxic Emissions Summary (continued)

Pollutant	Main Boiler (g/s)	Auxiliary Boiler (g/s)	Total Emissions (lb/hr)	Total Emsission (g/s)	1-Hr MGLC (mg/m^3)	Annual MGLC (mg/m^3)	AAC Annual (mg/m^3)	% of allowable AAC	24-Hr MGLC (mg/m^3)	AAC 24-hour (mg/m^3)	% of allowable AAC	15-Min MGLC (mg/m^3)	Short (15-min) Term Limit (mg/m^3)	% of allowable Short Term Limit	Is Refined Modeling Required ?
Metals															
Antimony	9.78E-04	-	7.76E-03	9.78E-04	5.89E-06	4.71E-07	-	-	2.36E-06	1.19E-03	0.20%	7.77E-06	-	-	NO
Arsenic	2.23E-02	1.21E-04	1.78E-01	2.24E-02	1.35E-04	1.08E-05	2.33E-07	4639.31%	5.39E-05	-	-	1.78E-04	2.00E-04	89.01%	YES
Beryllium	1.14E-03	9.07E-05	9.77E-03	1.23E-03	7.42E-06	5.93E-07	4.17E-06	14.24%	2.97E-06	-	-	9.79E-06	-	-	NO
Cadmium	2.77E-03	9.07E-05	2.27E-02	2.86E-03	1.72E-05	1.38E-06	5.56E-06	24.81%	6.89E-06	-	-	2.27E-05	-	-	NO
Chromium, total	1.41E-02	9.07E-05	1.13E-01	1.42E-02	8.56E-05	6.85E-06	-	-	3.42E-05	2.38E-03	1.44%	1.13E-04	-	-	NO
Chromium, hexavalent	4.29E-03	-	3.41E-02	4.29E-03	2.58E-05	2.07E-06	8.33E-08	2481.17%	1.03E-05	-	-	3.41E-05	-	-	YES
Cobalt	5.43E-03	-	4.31E-02	5.43E-03	3.27E-05	2.62E-06	-	-	1.31E-05	2.38E-04	5.50%	4.32E-05	-	-	NO
Copper	9.83E-04	1.81E-04	9.24E-03	1.16E-03	7.01E-06	5.61E-07	-	-	2.81E-06	2.38E-04	1.18%	9.26E-06	-	-	NO
Lead	1.76E-02	2.72E-04	1.42E-01	1.79E-02	1.08E-04	8.63E-06	-	-	4.32E-05	1.19E-04	36.25%	1.42E-04	-	-	NO
Mercury	1.61E-03	9.07E-05	1.35E-02	1.70E-03	1.02E-05	8.18E-07	3.00E-04	0.27%	4.09E-06	-	-	1.35E-05	0.01	0.13%	NO
Magnesium	5.97E-01	-	4.74E+00	5.97E-01	3.60E-03	2.88E-04	-	-	1.44E-03	0.02	6.05%	4.75E-03	-	-	NO
Manganese	2.66E-02	1.81E-04	2.13E-01	2.68E-02	1.61E-04	1.29E-05	4.90E-05	26.35%	6.46E-05	-	-	2.13E-04	0.50	4.26E-02 %	NO
Nickel	1.52E-02	9.07E-05	1.21E-01	1.53E-02	9.22E-05	7.37E-06	-	-	3.69E-05	2.38E-03	1.55%	1.22E-04	-	-	NO
Selenium	7.06E-02	4.54E-04	5.64E-01	7.11E-02	4.28E-04	3.42E-05	-	-	1.71E-04	4.76E-04	35.96%	5.65E-04	-	-	NO
Zinc	6.55E-04	1.21E-04	6.16E-03	7.76E-04	4.68E-06	3.74E-07	-	-	1.87E-06	4.76E-03	3.93E-02 %	6.17E-06	1.00	6.17E-04 %	NO
Additional Evaluations															
Carbon Monoxide	3.14E+02	1.21	2.50E+03	3.15E+02	1.90E+00	1.52E-01	-	-	7.59E-01	0.13	579.53%	2.50E+00	22.90	10.94 %	YES

Completed by: LMG 3/25/08
Checked by: JDF 3/25/08

Table 6-3 ISCST3 Toxics Modeling Results

Arsenic: Annual Average Period			
Year of Model Run	**Maximum Concentration ($\mu g/m^3$)**	**Location of Receptors (UTM)**	
1974	6.00E-05	340137	3657911
1975	5.00E-05	333000	3660000
1976	6.00E-05	340137	3657911
1977	6.00E-05	334037	3659811
1978	6.00E-05	334037	3659811
Maximum Concentration: 6.00E-05 $\mu g/m^3$			
Allowable Concentration: 2.33E-04 $\mu g/m^3$			
% of Allowable AAC: 25.75 %			
Hexavalent Chromium: Annual Average Period			
Year of Model Run	**Maximum Concentration ($\mu g/m^3$)**	**Location of Receptors (UTM)**	
1974	1.00E-05	340137	3657911
1975	1.00E-05	333000	3660000
1976	1.00E-05	340137	3657811
1977	1.00E-05	333000	3660000
1978	1.00E-05	333000	3659500
Maximum Concentration: 1.00E-05 $\mu g/m^3$			
Allowable Concentration: 8.33E-05 $\mu g/m^3$			
% of Allowable AAC: 12.00 %			
Hydrogen Chloride: Annual Average Period			
Year of Model Run	**Maximum Concentration ($\mu g/m^3$)**	**Location of Receptors (UTM)**	
1974	0.098	341237	3662111
1975	0.084	332500	3660000
1976	0.091	342000	3656500
1977	0.099	333000	3660000
1978	0.103	332500	3659500
Maximum Concentration: 0.103 $\mu g/m^3$			
Allowable Concentration: 20 $\mu g/m^3$			
% of Allowable AAC: 0.52 %			
Sulfuric Acid: 24 Hour Average Period			
Year of Model Run	**Maximum Concentration ($\mu g/m^3$)**	**Location of Receptors (UTM)**	
1974	0.295	336537	3660811
1975	0.372	338181	3659773
1976	0.278	340237	3661411
1977	0.295	336237	3659311
1978	0.302	336137	3659911
Maximum Concentration: 0.372 $\mu g/m^3$			
Allowable Concentration: 2.38 $\mu g/m^3$			
% of the Allowable AAC: 15.63 %			

Completed by: LMG 3/25/08
Checked by: JDF 3/25/08

Table 6-3 ISCST3 Toxics Modeling Results (Cont.)

Carbon Monoxide: 24 Hr Average Period			
Year of Model Run	**Maximum Concentration ($\mu g/m^3$)**	**Location of Receptors (UTM)**	
1974	17.77	336537	3660811
1975	22.67	338181	3659773
1976	16.81	340237	3661411
1977	17.96	336237	3659311
1978	18.47	336137	3659911
Maximum Concentration: 22.67 $\mu g/m^3$			
Allowable Concentration: 130 $\mu g/m^3$			
% of Allowable AAC: 17.44 %			

Completed by: LMG 3/25/08
Checked by: JDF 3/25/08

Table C-11: Ambient Air Concentration Development

Pollutant	Air Unit Risk (m^3/mg)	Weight of Evidence	Cancer Risk	RBAC (mg/m^3)	RfDi (mg/kg-d)	Rfc (mg/m3)	PEL (mg/m^3)	PEL Adj (mg/m^3)	PEL-C (mg/m^3)	PEL-C Adj (mg/m^3)	TLV-TWA (mg/m^3)	TLV-TWA Adj (mg/m^3)	TLC-STEL (mg/m^3)	TLC-STEL adj (mg/m^3)	TLV-C (mg/m^3)	TLV-Adj (mg/m^3)	REL-TWA (mg/m^3)	REL-TWA Adj (mg/m^3)	REL-STEL (mg/m^3)	REL-STEL Adj (mg/m^3)	REL-C (mg/m^3)	REL-C Adj (mg/m^3)	LD 50[1] (mg/kg)	AAC - Annual (mg/m3)	AAC - Annual (mg/m^3)	AAC - 24-hr (mg/m^3)	Short Term Limit (mg/m^3)
Sulfuric Acid (H_2SO_4)			-	-		-	1	2.38E-03		-		-		-		-		-		-		-		0.0E+00	0.0E+00	2.38E-03	-
Tetrachloroethylene			-	-		-	678	1.61	1356	135.60		-		-		-		-		-		-		0.0E+00	0.0E+00	1.61	135.60
Toluene			-	-	1.43	5.00		-	1131	113.10		-		-		-		-		-		-		5.0E+00	5.0E+00	-	113.10
1,1,1-Trichloroethane		D	-	-		-	1900	4.52		-		-		-		-		-		-	1900	190.00		0.0E+00	0.0E+00	4.52	190.00
Vinyl acetate			-	-	0.057	0.20		-		-		-	52.82	5.28		-		-		-	15	1.50		2.0E-01	2.0E-01	-	5.28
Xylene			-	-	0.029	0.10		-		-		-	651.29	65.13		-	435	1.04	655	65.50		-		1.0E-01	1.0E-01	-	65.13
Metals																											
Antimony			-	-		-	0.5	1.19E-03		-		-		-		-		-		-		-		0.0E+00	0.0E+00	1.19E-03	-
Arsenic	4.3	A	1.00E-06	2.33E-07		-		-		-		-		-		-		-		-	0.002	2.00E-04		2.3E-07	2.3E-07	-	2.00E-04
Barium		D	-	-	0.00014	4.90E-04		-		-		-		-		-		-		-		-		4.9E-04	4.9E-04	-	-
Beryllium	2.4	B	1.00E-05	4.17E-06	0.01	0.02000		-		-		-		-		-		-		-		-		4.2E-06	4.2E-06	-	-
Cadmium	1.8	B	1.00E-05	5.56E-06		-		-		-		-		-		-		-		-		-		5.6E-06	5.6E-06	-	-
Chromium, total			-	-		-	1	2.38E-03		-		-		-		-		-		-		-		0.0E+00	0.0E+00	2.38E-03	-
Chromium, hexavalent	12	A	1.00E-06	8.33E-08		1.00E-04		-		-		-		-		-		-		-		-		8.3E-08	8.3E-08	-	-
Cobalt			-	-		-	0.1	2.38E-04		-		-		-		-		-		-		-		0.0E+00	0.0E+00	2.38E-04	-
Copper		D	-	-		-	0.1	2.38E-04		-		-		-		-		-		-		-		0.0E+00	0.0E+00	2.38E-04	-
Lead		B	1.00E-05	-		-	0.05	1.19E-04		-		-		-		-		-		-		-		0.0E+00	0.0E+00	1.19E-04	-
Mercury		D	-	-	8.6E-05	0.00030		-	0.1	0.01		-		-		-		-		-	0.1	0.01		3.0E-04	3.0E-04	-	0.01
Magnesium			-	-		-		-		-	10	0.02		-		-		-		-		-		0.0E+00	0.0E+00	0.02	-
Manganese		D	-	-	0.000014	0.00005		-	5	0.50		-		-		-		-		-		-		4.9E-05	4.9E-05	-	0.50
Molybdenum			-	-		-	15	0.04		-		-		-		-		-		-		-		0.0E+00	0.0E+00	0.04	-
Nickel				-		-	1	2.38E-03		-		-		-		-		-		-		-		0.0E+00	0.0E+00	2.38E-03	-
Selenium		D	-	-		-	0.2	4.76E-04		-		-		-		-		-		-		-		0.0E+00	0.0E+00	4.76E-04	-
Vanadium			-	-		-		-	0.1	0.01	0.05	1.19E-04		-		-		-		-		-		0.0E+00	0.0E+00	1.19E-04	0.01
Zinc [5]			-	-		-		-		-	2	4.76E-03	10	1.00		-		-		-		-		0.0E+00	0.0E+00	4.76E-03	1.00
Additional Evaluations																											
Carbon Monoxide			-	-		-	55	0.13	-	-	29	0.07		-		-	40	0.10	229	22.90		-		0.0E+00	0.0E+00	0.13	22.90

1. from review of MSDS for substances
2. No Toxicity data available for Benzo(g,h,i)perylene and Benzo(g,h,i)pyrene therefore assumed to be same as Benzo(e)pyrene
3. No Toxicity data available for 7,12-Dimethylbenz(a)anthracene and Fluorene therefore assumed to be same as anthracene
4. No Toxicity data available for 5-Methyl chrysene therefore assumed to be same as chrysene
5. No Toxicity data available for Zinc therefore assumed to be same as Zinc Oxide

Completed by: LMG 3/25/08
Checked by: JDF 3/25/08