



State of Ohio Environmental Protection Agency

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RE: FINAL PERMIT TO INSTALL MODIFICATION

CERTIFIED MAIL

FRANKLIN COUNTY

Application No: 01-07853

Fac ID: 0125041935

DATE: 9/14/2006

ISG Columbus Coatings LLC
Tom Novotny
1800 Watkins Road
Columbus, OH 43207

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

CDO



FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 01-07853

Application Number: 01-07853
Facility ID: 0125041935
Permit Fee: **\$1125**
Name of Facility: ISG Columbus Coatings LLC
Person to Contact: Tom Novotny
Address: 1800 Watkins Road
Columbus, OH 43207

Location of proposed air contaminant source(s) [emissions unit(s)]:
1800 Watkins Road
Columbus, Ohio

Description of proposed emissions unit(s):
Hot dip zinc coating operation, 150 MMBTU/hr annealing furnace with selective catalytic reduction.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and

regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions

may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only) TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	24.6
NO _x	39.4
CO	15.8
PM ₁₀	5.0
SO ₂	0.4
Individual HAP	9.9
Combined HAPs	24.9

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment - (K003) - Hot dip zinc coating operation

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions shall not exceed 18.6 pounds per hour.</p> <p>See section A.2.a below.</p> <p>The requirements of this rule shall also include compliance with the requirements of OAC rules 3745-21-09(E) and 3745-35-07(B)(1).</p>
OAC rule 3745-21-09(E)	VOC content shall not exceed 2.6 pounds per gallon of coating, excluding water and exempt solvents.
40 CFR Part 60, Subpart TT	VOC emissions shall not exceed 0.28 kilogram per liter of coating solids applied for each calendar month.
OAC rule 3745-35-07(B)(1) (synthetic minor to avoid Title V and MACT)	See sections B.1 and B.2 below.

2. Additional Terms and Conditions

- 2.a The 18.6 pounds of VOC/hour limitation for this emissions unit was established to reflect the maximum potential to emit. Therefore, it is not necessary to develop additional monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

B. Operational Restrictions

1. The VOC emissions from this emissions unit (K003) shall not exceed 21.0 tons per year, based upon a rolling, 12-month summation of the monthly VOC emissions.
2. The HAP emissions from emissions units B001, B003, B005, K003, P002, P005, along with any de minimis, registration, and permanent exempt air contaminant sources shall not exceed 9.9 tons per year of any individual HAP, based upon a rolling, 12-month summation of monthly individual HAP emissions and 24.9 tons per year of any

combined HAPs, based upon a rolling, 12-month summation of monthly combined HAP emissions.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. the name and identification number of each coating, as applied;
 - b. the VOC content of each coating (excluding water and exempt solvents), as applied in lbs/gallons and kg/liter of applied solids; and
 - c. the number of gallons of each coating employed .
2. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the VOC content of each cleanup material, in pounds per gallon;
 - b. the number of gallons of each cleanup material employed;
 - c. the calculated individual monthly VOC emission rate (i.e., the sum of the products of the figures from items (1.b) and (1.c) for coatings and (2.a) and (2.b) for clean-up materials); and
 - d. the rolling, 12-month summation of the monthly VOC emissions.
3. The permittee shall maintain monthly records of the following information for emissions units B001, B003, B005, K003, P002, P005, along with any de minimis, registration, and permanent exempt air contaminant sources:
 - a. for all coating emissions units, the individual HAP content of each coating and cleanup material, in pounds per gallon;
 - b. for all coating emissions units, the number of gallons of each HAP-containing coating and cleanup material employed;
 - c. for all coating emissions units, calculation of the total individual HAP emission rate for all coatings and cleanup materials employed, in pounds or tons per month (i.e., the sum of the products of the figures from items 3.a and 3.b;
 - d. for all coating emissions unit, the rolling, 12-month summation of individual HAP emission rate (summation of item (c) for the current month plus the previous 11-month emission rates, above);

- e. for all other emissions units, calculation of the total individual HAP emission rate, in pounds or tons per month; and
 - f. for all emissions units, the rolling, 12-month summation of individual HAP emission rates (summation of item (e) for the current month plus the previous 11-month emission rates, above).
3. The permit to install for this emissions unit (K003) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Isopropyl Alcohol

TLV (ug/m3): 983,000

Maximum Hourly Emission Rate (lbs/hr): 2.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 180

MAGLC (ug/m3): 23,400

Pollutant: Methyl Ethyl Ketone

TLV (ug/m3): 590,000

Maximum Hourly Emission Rate (lbs/hr): 16.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 880

MAGLC (ug/m3): 14,000

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee

determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA Central District Office in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitations of 9.9 tons of individual HAP emissions, 24.9 tons of combined HAP emissions, and 21.0 tons of VOC emissions. These reports shall be submitted in accordance with the reporting requirements specified in Part I - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitations:

VOC emissions from this emissions unit (K003) shall not exceed 18.6 pounds per hour

Applicable Compliance Method:

The hourly VOC emission limitation was derived by multiplying the maximum VOC content of the clean up material (6.72 lbs VOC/gallon) times the maximum hourly usage of 2.5 gallons per hour.

2. **Emission Limitations:**
VOC content shall not exceed 2.6 pounds per gallon of coating, excluding water and exempt solvents. VOC emissions shall not exceed 0.28 kilogram per liter of coating solids applied for each calendar month.

Applicable Compliance Method:

Compliance with the VOC content limitation may be based on the record keeping specified in Section C.1.

USEPA Methods 24 and 24A shall be used to determine the VOC contents for coatings. If an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

3. **Emission Limitations:**
The Individual and combined HAP emissions from emissions units B001, B003, B005, K003, P002, P005, along with any de minimis, registration, and permanent exempt shall

ISG Columbus Coatings LLC
PTI Application: 01-07853
Modification Issued: 9/14/2006

Facility ID: 012504193
Emissions Unit ID: K003

not exceed 9.9 and 24.9 tons per year, based upon a rolling, 12-month summation of monthly individual and combined HAP emissions.

Applicable Compliance Method:

Compliance with the annual Individual and Combined HAP emission limitations shall based upon the record keeping specified in Section C.3.

4. Emission Limitation:

VOC emissions from this emissions unit (K003) shall not exceed 21.0 tons of VOC per year, based upon a rolling, 12-month summation of emissions

Applicable Compliance Method:

Compliance with the annual emission limitation shall based upon the record keeping specified in Section C.2.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment - (P005) - 150 mmBtu/hr annealing furnace with selective catalytic reduction

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Nitrogen oxide (NO_x) emissions shall not exceed 9 pounds per hour and 39.4 tons per year.</p> <p>Particulate emissions (PE) shall not exceed 1.14 pounds per hour and 5.0 tons per year.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.09 pounds per hour and 0.4 tons per year.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.82 pounds per hour and 3.6 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 3.60 pounds per hour and 15.8 tons per year.</p> <p>See sections B.1 and B.2 below.</p>
OAC rule 3745-17-07(A)(1)	Opacity shall not exceed 20% as a six minute average, except as provided by rule.
OAC rule 3745-17-11	See section A.2.b below.

2. Additional Terms and Conditions

- 2.a The main burners of the continuous annealing furnace shall be firing with steel moving through the process for the furnace to meet the definition of 'in operation' for excursion reporting in Section D.1 and D.2 ,below. During start-up, shutdown and furnace idling, the furnace does not meet the definition of 'in operation' when either the 3 - hour average temperature of the inlet gas or the ammonia/gas ratio entering the selective catalytic reduction (SCR) device is less than the temperature or the ammonia gas ratio established during emission testing for effective catalytic reduction, respectively.

- 2.b** The particulate emission limits established by OAC rule 3745-17-11 are less stringent than those established in this permit per BAT.
- 2.c** The hourly limitations for this emissions unit were established to reflect the maximum potential to emit. Therefore, it is not necessary to develop additional monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

B. Operational Restrictions

- 1. The average ammonia/gas ratio for any three hour block of time when the emissions unit is in operation, associated with the selective catalyst reduction control device shall be continuously maintained at a value of not less than 90% of the value established during the most recent emissions test that demonstrated that the emissions unit was in compliance.
- 2. The average inlet duct temperature within the selective catalyst reduction control device, for any three hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit less than the temperature established during the most recent emissions test that demonstrated that the emissions unit was in compliance.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall operate and maintain equipment to continuously monitor the ammonia/gas ratio while the emissions unit is in operation. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The ammonia/gas ratio monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

- a. All 3-hour blocks of time during which the average ammonia/gas ratio of the selective catalyst reduction control device, when the emissions unit was in operation, was less than the value specified above.
 - b. The operating times for the control device, monitoring equipment, and the associated emissions unit.
- 2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the inlet duct temperature of the selective catalyst reduction control device when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of

accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

- a. All 3-hour blocks of time during which the average temperature of the inlet duct temperature of the selective catalyst reduction control device, when the emissions unit was in operation, was less than the temperature specified above.
 - b. The operating times for the control device, monitoring equipment, and the associated emissions unit.
3. The permit to install for this emissions unit (P005) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ammonia

TLV (ug/m3): 17,000

Maximum Hourly Emission Rate (lbs/hr): 1.51

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 9.2

MAGLC (ug/m3): 405

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time, when the emissions unit is in operation, during which the average temperature of the inlet duct temperature of the selective catalyst reduction control device does not comply with the temperature limitation specified above.

2. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time, when the emissions unit is in operation, during which the ammonia/gas ratio of the selective catalyst reduction control device does not comply with the minimum value specified above.
3. These deviation (excursion) reports shall be submitted in accordance with the reporting requirements specified in Part I - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - a. **Emission Limitation:**
Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
 - b. **Emission Limitations:**
Nitrogen oxide (NO_x) emissions shall not exceed 9 pounds per hour and Carbon monoxide (CO) emissions shall not exceed 3.60 pounds per hour.

Applicable Compliance Method:

If required, the permittee shall conduct, or have conducted, emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate(s) for NO_x and CO in accordance with the following requirements:

- i. the emission testing shall be conducted to demonstrate compliance with the hourly mass emission rates;
- ii. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s) for Nox and CO: 40 CFR Part 60, Appendix A, Methods 1-4, 7E (NO_x) and 10 (CO);
- iii. the test(s) shall be conducted while the emissions unit is operating at the maximum process weight rate.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s)

of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- c. Emission Limitation:
Particulate emissions (PE) shall not exceed 1.14 pounds per hour.

Applicable Compliance Method:

Compliance with this emission limitation shall be determined by multiplying an emission factor of 7.6 lb/mmscf by the maximum actual heat input for this emissions unit (150 mmBtu/hr) and 1000 Btu/scf. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

- d. Emission Limitation:
Sulfur dioxide (SO₂) emissions shall not exceed 0.09 pounds per hour.

Applicable Compliance Method:

Compliance with this emission limitation shall be determined by multiplying an emission factor of 0.6 lb/mmscf by the maximum actual heat input for this emissions unit (150 mmBtu/hr) and 1000 Btu/scf. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 6C.

- e. Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 0.82 pounds per hour.

Applicable Compliance Method:

Compliance with this emission limitation shall be determined by multiplying an emission factor of 5.5 lb/mmscf by the maximum actual heat input for this emissions unit (150 mmBtu/hr) and 1000 Btu/scf. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 7E.

f. **Emission Limitation:**

PE shall not exceed 5.0 tons per year, SO₂ emissions shall not exceed 0.4 tons per year, VOC emissions shall not exceed 3.6 tons per year.

Applicable Compliance Method:

Compliance with these emission limitations shall be assumed and is derived from the maximum PTE during 8,760 hours of operation per year.

g. **Emission Limitation:**

NO_x emissions shall not exceed 39.4 tons per year and CO emissions shall not exceed 15.8 tons per year.

Applicable Compliance Method:

Compliance with these emission limitations shall be assumed as long as the permittee demonstrates compliance with the hourly emission limitation and complies with the parametric monitoring, recordkeeping and reporting requirements in this permit.

F. Miscellaneous Requirements

None