Guardian Automotive Trim, Inc.
AFS ID: 21-205-00042
A.I. #: 3866
Activity I.D. #: APE20040001
Response to comments on permit number V-05-019

COMMENT 1:

2. Emission Limitations
Section B, Emission Limitations for High Gloss (02) and High Bake (14) (pg 4-87 and pg 48-87) and Low Gloss (03) and Resist (12) (pg 12-87 and pg 41-87)

COMMENT 1A:
401 KAR 59:010 – eliminate formula and definitions and replace with "*Particulate emissions shall not exceed 2.34 pounds per hour for each spray booth*". The PSD permit specifies that the limit for each spray booth is 2.34 lbs/hr. Also, the permit application shows that the process weight rate for each spray booth is ≤ 0.5 tons per hour.

COMMENT 1B:
The Compliance Demonstration Method should be deleted and replaced with "*The affected facility is assumed to be in continuous compliance at all times when the water wash system is operated in accordance with the manufacturer's specifications and/or standard operating parameters*". This is taken directly from the PSD permit. Initial compliance has already been demonstrated with the PSD permit as this source has been operating for a number of years.

RESPONSE TO COMMENT 1A:
The Division will remove the formula and definitions referenced from 401 KAR 59:010 § 3 from the permit. The definitions and formula were included to provide clarity as to the origin of the emission limitation. The Division agrees that it is not necessary for this information to be in the permit since in all cases the process weight rate, which is the total tons per hour of paint that can be applied in each paint booth per hour is less than 0.5 tons.

RESPONSE TO COMMENT 1B:
The Title V Operating Permit Application received by the Division on May 9, 2003 and the Title V and PSD Operating Permit Application received by the Division on August 2, 1999 specify the following collection efficiencies for the water curtain control equipment:

EP02 – Collection efficiency of water curtain/filter = 99%
EP03 – Collection efficiency of water curtain/filter = 97%
EP12 – Collection efficiency of water curtain/filter = 90%
EP14 – Collection efficiency of water curtain/filter = 99%

The applications do not contain supporting data, either in the form of manufacturer data or representative test data at another source for these efficiencies. **There is no record that initial compliance with 59:010 has been demonstrated.**

RESPONSE TO COMMENT 1B (Continued):
The EPA has provided guidance on the efficiency of various types of control equipment. This guidance is available at http://www.epa.gov/ttn/atw/coat/misc/att5_pic.pdf.

The EPA guidance specifies the following control efficiencies for a water curtain:

Pollutant	Control Efficiencies (%)		
	Avg.	Min.	Max.
PM_{10}	90	90	90
PT	89	80	97

Since there is no data to support the control efficiencies specified in the applications and there is no record of a KYDEP observed performance test to determine particulate emissions from these affected facilities, engineering judgment is used in determining the control efficiency to be used for the water curtain. A control efficiency of 90% is assumed for the purpose of calculating particulate matter emissions. The application specifies a minimum transfer efficiency of 30% for the HVLP spray guns. The EPA publication 305-B-95-002, August 1998, "Self-Audit and Inspection for Facilities Conducting Cleaning, Preparation, and Organic Coating of Metal Parts," located at http://www.p2pays.org/ref/26/25254.pdf, estimates the transfer efficiency of HVLP spraying to reach 65% to 75%. Based on this the Division has used a transfer efficiency of 60%. The resultant PTE per applicator for particulate is:

ID	PTE (lbs/hour) per applicator	PTE (lbs/hour) per booth
EP02, Primer Booth	0.70	2.80
EP02, Color Booth	2.07	12.42
EP02, Clear Booth	1.50	9.00
EP03, Low Gloss	1.26	7.56
EP12, Resist Booth	0.04	0.08
EP12, Topcoat Booth	0.93	1.86
EP14, Primer Booth	0.80	3.20
EP14, Color Booth	2.26	13.56
EP14, Clear Booth	2.07	12.42

401 KAR 59:010: § 3 defines the affected facility as the last operation preceding the emission of air contaminants, which results:
(a) In the separation of the air contaminant from the process materials; or
(b) In the conversion of the process materials into air contaminants, but does not include an air pollution abatement operation**.**

Given that the separation of air contaminants occurs at each booth because each booth is controlled by an individual water curtain system and the definitions of an affected facility in 59:010, each paint booth is considered an affected facility. Therefore, the allowable emission rate for each paint booth is 2.34 lb/hr since total tons per hour of paint that can be applied in each paint booth per hour is less than 0.5 tons per hour. **The Division will not alter or delete the compliance demonstration method.**

COMMENT 2A

5. Specific Record Keeping Requirements

High Gloss (02), High Bake (14) (pg 6-87 and 50-87) and Low Gloss (03), Resist (12) (pg 14-87 and 43-87) and Paint Mix Room East/West (18 & 19) (pg 58-87 and 63-87)

Item c. should have the following added to the end "*when the process has been in operation the entire three-hour period*." This same addition should be made in all cases where an exceedance of a three-hour limit is involved.

RESPONSE TO COMMENT 2A

The Division concurs.

COMMENT 2B

High Gloss (02), High Bake (14) (pg 6-87 and 51-87) and Low Gloss (03), Resist (12) (pg 14-87 and 43-87) and Paint Mix Room East/West (18 & 19) (pg 59-87 and 64-87)

Thermal Oxidizer Specific Record Keeping Requirements – eliminate item #2 related to visible emissions as Guardian will not know that the minimum temperature has not been met until after the fact and thus will not know if visible emissions occurred during the hours in question. Routine visual observations of opacity are required under **4. Specific Monitoring Requirements.**

RESPONSE TO COMMENT 2B

The Division concurs.

COMMENT 3

7. Specific Control Equipment Operating Conditions

High Gloss (02), High Bake (14) (pg 8-87 and pg 52-87)

Specific Operating Limitations for Permanent Total Enclosures

Compliance Demonstration Method – revise to the following "*Compliance shall be demonstrated by monitoring and recording the supply air ducts entrance and exit velocities and the vestibule exhaust velocity as required by the periodic monitoring requirements table to ensure that they meet the minimum velocities necessary to maintain the 200 fpm facial velocity for the NDOs and –0.007 inches of water pressure differential across the enclosure as measured during the most recent Method 204 test and the direction of air flow is into the enclosure*".

RESPONSE TO COMMENT 3

The Division concurs. The Division will revise the Compliance Demonstration Method to the following: Compliance shall be demonstrated by monitoring and recording the supply air ducts entrance and exit velocities and the vestibule exhaust velocity as required by the periodic monitoring requirements table. By fulfilling these requirements it will be ensured that the minimum velocities necessary to maintain the 200 fpm facial velocity for the NDOs and the minimum pressure drop limit of –0.007 inches of water across the enclosure as measured during the most recent Method 204 test are met. Fulfilling these requirements will also ensure that the direction of air flow is into the enclosure.

The updated Periodic Monitoring Requirements tables are attached at the end of the COMMENTS section.

COMMENT 4
7. Specific Control Equipment Operating Conditions (pg 16-87 and 45-87)
Low Gloss (03) and Resist (12) (pg 16-87 and 45-87).
Specific Operating Limitations for Permanent Total Enclosures
Compliance Demonstration Method – revise **(ii)** to the following "*Compliance shall be demonstrated by monitoring and recording the pressure drop as required by the periodic monitoring requirements table to ensure that it meets the minimum pressure differential requirement across the enclosure of –0.007 inches of water and the direction of air flow is into the enclosure*".

RESPONSE TO COMMENT 4
The Division concurs. The updated Periodic Monitoring Requirements tables are attached at the end of the COMMENTS section.

COMMENT 5
BOILERS B1, B2, B3, AND B6

2. Emission Limitations (pg 38)

2) and 3) The limits in the PSD permit are 0.456 and 2.094 lb/MMBTU for particulate matter and sulfur dioxide instead of the slightly lower limits in the draft Title V permit. The reason for this is unknown.

RESPONSE TO COMMENT 5
In telephone conversations with Guardian environmental staff in December of 2005, it has been established that the construction date for boilers 1, 2, 3 and 6 is 1996 and the construction date for boilers 4 and 5 is 1999. According to 401 KAR 59:015 § 4(1)(c) the allowable emission limit for particulate matter from each of boilers 1, 2, 3 and 6 is equal to 0.9634 x (25.7) ^ (-0.2356) = 0.448 lb/MMBTU actual heat input. The allowable emission limit for sulfur dioxide from each of boilers 1, 2, 3 and 6 is equal to 7.7223 x (25.7) ^ (-0.4106) = 2.04 lb/MMBTU actual heat input. The allowable emission limit for boilers 4 and 5 is determined the same way except that the total heat input capacity for the source is now 25.7 + 16 = 41.7. These boilers are all assumed to be in compliance with the above standards as long they are burning pipeline grade natural gas.

COMMENT 6
PLATING OPERATIONS

3. Testing Requirements (pg 18-87 and pg 19-87 particulates, copper and sulfuric acid), (pg 22-87 particulates and sulfuric acid), (pg 29-87 and pg 30-87 particulates and sulfuric acid), (pg 32-87 and 33-87 particulates, copper and sulfuric acid) and (pg 35-87 particulates and nitric acid)

COMMENT 6A
B. Guardian would like to add to this condition that we will test each **stack** for particulate matter emissions before the scrubber. Compliance will be demonstrated if the total measured emissions do not exceed the sum of the particulate matter limits for each tank.

COMMENT 6B
C. Guardian would like to add to this condition that we will test for the required parameters (copper, sulfuric acid and/or nitric acid) before the scrubber if physically possible. Compliance will be demonstrated if the total measured emissions from all stacks do not exceed the facility limits in the PSD permit. If compliance is demonstrated for particulate matter, copper, sulfuric acid, and nitric acid emissions and the air compliance modeling shows Guardian is in compliance with the limits in the PSD permit, DEP will remove **all** scrubber requirements from **all** permits.

COMMENT 6C
D. Guardian would like to leave the option of submitting an engineering evaluation in lieu of conducting the performance tests specified in 3.B.

COMMENT 6D
E. Guardian would like to leave the option of submitting an engineering evaluation in lieu of conducting the performance tests specified in 3.C.

RESPONSE TO COMMENT 6A
B. Guardian may demonstrate compliance with KAR 59:010, 63:020 and 63:021 by testing for particulate matter emissions prior to control equipment using EPA Test Method 5 or an alternative test method. The permit allows the use of alternative test methods approved by the Division, so for example, it may not be necessary to use EPA Test Method 29 to determine copper emissions if a determination of total particulate matter emissions by Method 5 will serve to demonstrate compliance with 59:010, 63:020 and 63:021. The proposed language is not adequate to describe compliance requirements with 59:010, 63:020 and 63:021. Demonstrating compliance with 59:010 and 63:021 may not necessarily demonstrate compliance with 63:020 because compliance with 63:020 is dependent on the emission rate ***and*** the concentration of the substance at or beyond the property boundary.

RESPONSE TO COMMENT 6B
C. Compliance with 401 KAR 63:020 must be demonstrated by using the emission rates of copper, sulfuric acid and nitric acid determined by testing in an approved air dispersion model to determine their concentrations at or beyond the Guardian property boundary. The concentrations will be compared to data located at the following website: http://www.oehha.ca.gov/air/acute_rels/allAcRELs.html. The concentrations must be less than the following values:

Chemical Name (CAS #)	REL ($\mu g/m^3$)	Avg. time (h)
Copper and Compounds	100	1
Nitric Acid (7697-37-2)	86	1
Sulfuric Acid and Oleum	120	1

Permit V-05-019 is structured so that there are no requirements for scrubber control systems for the units that 401 KAR 63:021 emission limits applied to if the following conditions are met:

(1) Emission rates of these substances are determined through testing or engineering evaluation (pre-control).
(2) The emission rates of particulate matter do not exceed the mass emission standard required by 401 KAR 59:010.
(3) The concentration of these substances at or beyond the property boundary determined by an air dispersion model are less than the established health based standards for these substances in ambient air.

RESPONSE TO COMMENT 6B (Continued)

(4) The methods used to determine the emission rates of these substances and the air dispersion model used to determine the concentrations of these substances at or beyond the property boundary must be approved by the Division.

If the above conditions are met, the facility has demonstrated compliance with 401 KAR 63:020 and has thus demonstrated that the conditions required by 401 KAR 63:021 are no longer necessary to protect human health and the environment.

See **Response to Question #8**

RESPONSE TO COMMENT 6C

D. The Division concurs.

RESPONSE TO COMMENT 6D

E. The Division concurs.

COMMENT 7

CHROME PLATING LINE

APPLICABLE REGULATIONS (pg 21-87)

The permit needs to be modified to clearly state that Subpart N applies ONLY to Tank 48. All individual requirements from Subpart N that are cited in the permit need to specifically indicate that Tank 48 is the only source subject to those requirements.

COMMENT 7A

1. Operating Limitations (pg 21-87)

The permit needs to be modified to clearly state that these requirements apply ONLY to Tank 48.

COMMENT 7B

2. Emission Limitations (pg 21-87)

A. The permit needs to be modified to clearly state that these requirements apply ONLY to Tank 48.

COMMENT 7C

3. Testing Requirements (pg 22-87)

C. The draft permit requires testing for chromium (hexavalent). Neither the PSD permit nor Subpart N requires any stack testing for the chromium electroplating tank to determine compliance. Compliance was initially demonstrated and has continued to be demonstrated by meeting the surface tension limit. The total chromium emission rate of 0.01 mg/dscm is considered to be met as long as the surface tension limit is met. Reference Methods 306/306A measure total chromium. There is no Reference Method for measuring hexavalent chromium. The material actually emitted from chromium electroplating tanks is chromic acid. If there is an ambient guideline for chromic acid, we will model the emission limit of 0.01 mg/dscm to determine if the resulting maximum impact complies with the ambient guideline. We would like the permit to be modified to specify this approach.

COMMENT 7D

4. Specific Monitoring Requirements (pg 23-87)

A, B and C need to be combined as they are presently written to represent historic requirements that were met long ago. The combined condition should state that the surface tension must be measured every 40 hours of tank operation unless an exceedance occurs. If an exceedance occurs, the schedule specified in B. must be followed.

COMMENT 7E

5. Specific Record Keeping Requirements (pg 24-87)

A and D should be eliminated or restated to include a statement that the operation and maintenance plan was prepared and implemented several years ago. Again, it should be clearly stated that the operation and maintenance plan requirements pertain ONLY to Tank 48.

COMMENT 7F

6. Specific Reporting Requirements (pg 26-87 and pg 27-87)

B. Again, it should be clearly stated that the ongoing compliance status report requirements pertain ONLY to Tank 48.

RESPONSE TO COMMENT 7A

1. Operating Limitations (pg 21-87)

The Division concurs.

RESPONSE TO COMMENT 7B

2. Emission Limitation (A) (pg 21-87)

The Division concurs.

RESPONSE TO COMMENT 7C

3. Testing Requirements (C) (pg 22-87)

The Division does not concur. This testing requirement is included in the permit for the purpose of demonstrating compliance with 401 KAR 63:020. Compliance with the surface tension limit demonstrates compliance with Subpart N only. The analysis of compliance with 401 KAR 63:020 is concerned with effects-based emission limits. Compliance with Subpart N is focused on technology-based emission limits. These are two distinct types of emission limits. Effects-based emission limits are designed to prevent or mitigate environmental impacts. Technology-based emission limits require certain minimum levels of control and may be required even where there is no adverse impact on the environment from the emissions. The Division agrees that hevavalent chromium emissions cannot be determined directly from the Method 306/306A tests, however, if hexavalent chromium emissions are determined through testing, it is likely that one of these test methods will be utilized. Post scrubber hexavalent chromium emissions were found to be emitted from the chrome scrubber at Division observed tests conducted at Guardian Automotive on June 4, 1998. Method 306 and the diphenylcarbazide colorimetric method were used in the determination. The language in the permit allows for the use of alternative test methods if approved by the Division.

RESPONSE TO COMMENT 7D

4. Specific Monitoring Requirements (A), (B) and (C) (pg 23-87)

The Division concurs. The Division has revised the language to provide clarity on when the monitoring of surface tension may need to be adjusted.

A. The surface tension shall be measured once every 40 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, Appendix A of 40 CFR 63, Subpart N.
B. The time between monitoring must be adjusted if an exceedance occurs. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the exceedance occurred. Once there are no exceedances during 40 hours of tank operation, surface tension measurment may be conducted once every 8 hours of tank operation. Once there are no exceedances during another 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed is once every 40 hours of tank operation.
C. Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures of paragraph (B) above.

RESPONSE TO COMMENT 7E

5. Specific Record Keeping Requirements (pg 24-87)

The Division concurs. The language of (A) and (D) has been revised to clearly reflect that the operation and maintenance plan has been prepared and implemented prior to issuance of the permit.

A. The operation and maintenance plan on file at the facility shall include the following elements:
    1. The plan shall specify the operation and maintenance criteria for the affected source and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of this equipment;
    2. The plan shall incorporate the work practice standards for that device or monitoring equipment, as identified in Table 1 of §63.342;
    3. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and,
    4. The plan shall include a systematic procedure for identifying malfunctions of process equipment, and process and control system monitoring equipment and for implementing corrective actions to address such malfunctions.
D. The permittee may utilize applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OHSA) plans, or other existing plans, in the operation and maintenance plan, provided the alternative plans meet the requirements of this section.

RESPONSE TO COMMENT 7F

6. Specific Reporting Requirements (pg 26-87 and pg 27-87)

The Division concurs.

COMMENT 8

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS
(pg 69-87)

6. This condition should be revised to indicate that the air toxics emissions specified in Section B for the plating sources and for the coating and mixing operations must be modeled. It would take a substantial amount of time to attempt to estimate emissions and release characteristics for the other source (insignificant and other) which by their very nature have insignificant emissions and impacts. There is no need to model very small sources with insignificant emissions and impacts. This condition needs to target exactly what sources need to be modeled.

RESPONSE TO COMMENT 8
The Division does not concur. The Division agrees that it may not be necessary to include some or possibly all emission points listed in SECTION C, Insignificant Activities in the air dispersion model but does not agree that the inclusion or exclusion of an emission point should be based on the emission point qualifying as an insignificant activity. As defined in 401 KAR 52:020 §6, an insignificant activity may have a potential to emit of combined HAPs of 1,000 lb/year. Depending on the air toxic(s) and the release characteristics, this allowable emission rate may not be protective of human health and the environment.

Emission points in Section B and Section C of the permit that need not be included in the air dispersion model may be identified in the air dispersion model protocol. Justification must be provided for exclusion of these emission points from the modeling by either providing emission calculations which demonstrate that the activity does not emit air toxics and/or using a screening model such as SCREEN3 using worst-case release characteristics to determine the concentration of toxics emitted from the emission point(s). This language shall be added to the permit.

The concentrations of the potentially hazardous matter and toxic substances at the Guardian Automotive property boundaries must be less than the most up to date health based standards recommended by the EPA, Office of Air Quality Plan and Standards (OAQPS). The current health based standards recommended by the EPA-OAQPS are the prioritized chronic dose-response values located at http://www.epa.gov/ttn/atw/toxsource/table1.pdf and the acute dose-response values located at http://www.epa.gov/ttn/atw/toxsource/table2.pdf.

RESPONSE TO COMMENT 8 (Continued)

The units for cancer risk in Table 1 are $1/(\mu g/m^3)$. This is referred to as unit risk. The unit risk must be converted into a concentration so that it can be compared with modeled ambient concentrations. Unit risk can be converted into concentration using the following methodology:

Let us define the term "Maximum Allowable Emission Level" x unit risk (from Table 1) = cancer risk.

Maximum Allowable Emission Level (MAEL) = risk / unit risk

The acceptable "target risk" for cancer endpoints is one-in-one million (10^{-6}) (unit-less)

MAEL ($\mu g/m^3$) = (1×10^{-6}) / unit risk

This is the value that should be compared to the modeled concentration of a pollutant.

The acceptable "target risk" for non-cancer endpoints is a hazard index of 1 or less, where hazard index is defined as:

$$Hazard\ Index = \frac{Modeled\ Concentration\ of\ X}{Concentration\ of\ X\ in\ Table}$$

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
02 (S9A)	High Gloss	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages & Intermittent Problem Log	Annual	Not More Than 28°C Below Last Compliance Test, 3 Hour Avg.
02 (S9A)	High Gloss	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages	Annual	Set Point = Average Temperature established during performance test
02 (S9A)	High Gloss	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	VOC In / Out	Stack Test (EPA Method 25A)	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method
02 (S9A)	High Gloss	PTE entrance supply air	Capture Efficiency (%)	Supply Air Duct Velocity (feet/minute)	Velocity Monitor	Continuous	15-Minute Averages	Annual	See Compliance Plan, Section D
02 (S9A)	High Gloss	PTE exit supply air	Capture Efficiency (%)	Supply Air Duct Velocity (feet/minute)	Velocity Monitor	Continuous	15-Minute Averages	Annual	See Compliance Plan, See Section D
02 (S9A)	High Gloss	Vestibule Exhaust duct	Capture Efficiency (%)	Vestibule Exhaust Duct Velocity (feet/minute)	Velocity Monitor	Continuous	15-Minute Averages	Annual	See Compliance Plan, See Section D
02 (S9A)	High Gloss	Vestibule	Capture Efficiency (%)	Vestibule Exhaust Duct Velocity (feet/minute)	Velocity Monitor	Each Occurrence of Set Point Change	Each Occurrence of Set Point Change	Annual	See Compliance Plan, Section D

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
02 (S9A)	High Gloss	RTO / PTE	All VOC routed to RTO	Bypass Damper position	Alarm	Continuous	Intermittent (Problem Log)	Annual Confirm	No Faults
02 (S9A)	High Gloss t	Down-draft water wash system	PM Removal Efficiency (%)	Water Gaps	Visual	Daily	Daily	N/A	No Significant Gaps
02 (S9A)	High Gloss	Primer Booth, Basecoat Booth and Clearcoat Booth exhaust	Emission Rate	Particulate Emission	Stack Test (EPA Method 5) or Engineering Evaluation	Every 5 years	Every 5 years	Each Test	See Section B.2
02 (S9A)	High Gloss West	Down-draft water wash system	Opacity	Visible emissions	Qualitative visual observation or Method 9 Test	Weekly	Weekly	N/A	See Section B.4

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
03 (SL3, SL4, SL5, SL6)	Low Gloss	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages & Intermittent Problem Log	Annual	Not More Than 28°C Below Last Compliance Test, 3 Hour Avg.
03 (SL3, SL4, SL5, SL6)	Low Gloss	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages	Annual	Setpoint = Average Temperature established during performance test
03 (SL3, SL4, SL5, SL6)	Low Gloss	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	VOC In / Out	Stack Test (EPA Method 25A)	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method
03 (SL3, SL4, SL5, SL6)	Low Gloss	Low Gloss PTE near Resist Paint Booth	Capture Efficiency (%)	Pressure Differential across enclosure (in. H_2O)	Pressure Differential Monitor (in. H_2O)	Continuous	15-Minute Averages	Annual	Minimum pressure differential of –0.007 inches of H_2O
03 (SL3, SL4, SL5, SL6)	Low Gloss	RTO / PTE	All VOC routed to RTO	By-Pass Damper Position	Alarm	Continuous	Intermittent (Problem Log)	Annual Confirm	No Faults
03 (SL3, SL4, SL5, SL6)	Low Gloss	Water wash system	PM Removal Efficiency (%)	Water Gaps	Visual	Daily	Daily	N/A	No Significant Gaps
03 (SL3, SL4, SL5, SL6)	Low Gloss	Spray Booth Exhaust	Emission Rate	Particulate Emission	Stack Test (EPA Method 5) or Engineering Evaluation	Every 5 years	Every 5 years	Each Test	See Section B.2
03 (SL3, SL4, SL5, SL6)	Low Gloss	Water wash system	Opacity	Visible emissions	Qualitative visual observation or Method 9 Test	Weekly	Weekly	N/A	See Section B.4

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
12 (SR1A)	Resist Line	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages & Intermittent Problem Log	Annual	Not More Than 28°C Below Last Compliance Test, 3 Hour Avg.
12 (SR1A)	Resist Line	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages	Annual	Setpoint = Average Temperature established during performance test
12 (SR1A)	Resist Line	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	VOC In / Out	Stack Test (EPA Method 25A)	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method
12 (SR1A)	Resist Line	Low Gloss PTE near Resist Paint Booth	Capture Efficiency (%)	Pressure Differential (in. H_2O) across enclosure	Pressure Differential Monitor (in. H_2O)	Continuous	15-Minute Averages	Annual	Minimum pressure differential of –0.007 inches of H_2O
12 (SR1A)	Resist Line	RTO / PTE	All VOC routed to RTO	By-Pass Damper Position	Alarm	Continuous	Intermittent (Problem Log)	Annual Confirm	No Faults
12 (SR1A)	Resist Line	Water wash system	PM Removal Efficiency (%)	Water Gaps	Visual	Daily	Daily	N/A	No Significant Gaps
12 (SR1A)	Resist Line	Spray Booth Exhaust	Emission Rate	Particulate Emission	Stack Test (EPA Method 5) or Engineering Evaluation	Every 5 years	Every 5 years	Each Test	See Section B.2
12 (SR1A)	Resist Line	Water wash system	Opacity	Visible emissions	Qualitative visual observation or Method 9 Test	Weekly	Weekly	N/A	See Section B.4

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
14 (SK5A)	High Bake	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages & Intermittent Problem Log	Annual	Not More Than 28°C Below Last Compliance Test, 3 Hour Avg.
14 (SK5A)	High Bake	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15-Minute Averages	Annual	Setpoint = Average Temperature established during performance test
14 (SK5A)	High Bake	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	VOC In / Out	Stack Test (EPA Method 25A)	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method
14 (SK5A)	High Bake	PTE entrance supply air	Capture Efficiency (%)	Supply Air Duct Velocity (feet/minute	Velocity Monitor	Continuous	15-Minute Averages	Annual	See Compliance Plan, Section D.
14 (SK5A)	High Bake	PTE exit supply air	Capture Efficiency (%)	Supply Air Duct Velocity (feet/minute	Velocity Monitor	Continuous	15-Minute Averages	Annual	See Compliance Plan, Section D.
14 (SK5A)	High Bake	Vestibule exhaust duct	Capture Efficiency (%)	Vestibule Exhaust Duct Velocity (feet/minute)	Velocity Monitor	Continuous	15-Minute Averages	Annual	See Compliance Plan, Section D.
14 (SK5A)	High Bake	RTO / PTE	All VOC routed to RTO	Bypass Damper position	Alarm	Continuous	Intermittent (Problem Log)	Annual Confirm	No Faults

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
14 (SK5A)	High Bake	Down-draft water wash system	PM Removal Efficiency (%)	Water Gaps	Visual	Daily	Daily	N/A	No Significant Gaps
14 (SK5A)	High Bake	Primer Booth, Basecoat Booth and Clearcoat Booth exhaust	Emission Rate	Particulate Emission	Stack Test (EPA Method 5 or Engineering Evaluation)	Every 5 years	Every 5 years	Each Test	See Section B.2
14 (SK5A)	High Bake	Down-draft water wash system	Opacity	Visible emissions	Qualitative visual observation or Method 9 Test	Weekly	Weekly	N/A	See Section B.4

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
18	Paint Mix Room East	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15 Minute Averages & Intermittent Problem Log	Annual	Not More Than 28°C Below Last Compliance Test, 3 Hour Avg.
18	Paint Mix Room East	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15 Minute Averages	Annual	Setpoint = Average Temperature established during performance test
18	Paint Mix Room East	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	VOC In / Out	Stack Test (EPA Method 25A)	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method
18	Paint Mix Room East	Paint Mix Room Exhausts	PTE Collection	Bypass Damper position	Alarm	Continuous	Intermittent (Problem Log)	Annual Confirm	See Compliance Plan, Section D.
18	Paint Mix Room East	Paint Mix Room Exhausts	Emission Rate	VOC emitted	EPA Method 25 test	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PERIODIC MONITORING REQUIREMENTS

Emission Unit	Operation	Equipment Monitored	Characteristic Monitored	Parameter Monitored	Method or Device	Monitoring Frequency	Recording Frequency	Calibration Frequency	Standard Range
19	Paint Mix Room West	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15 Minute Averages & Intermittent Problem Log	Annual	Not More Than 28°C Below Last Compliance Test, 3 Hour Avg.
19	Paint Mix Room West	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	Oxidizer Combustion Chamber Temperature	Thermocouple	Continuous	15 Minute Averages	Annual	Setpoint = Average Temperature established during performance test
19	Paint Mix Room West	Four RTOs (SK5A, S9A, SL11A, SR1A)	Destruction Efficiency (%)	VOC In / Out	Stack Test (EPA Method 25A)	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method
19	Paint Mix Room West	Paint Mix Room Exhausts	PTE Collection	Bypass Damper position	Alarm	Continuous	Intermittent (Problem Log)	Annual Confirm	No Faults
19	Paint Mix Room West	Paint Mix Room Exhausts	Emission Rate	VOC emitted	EPA Method 25 test	Every 5 Years	Every 5 Years	Each Test	See Section B.2, Compliance Demonstration Method

ADMINISTRATIVE CORRECTIONS

The administrative corrections indicated in the October 31, 2005 submittal have been incorporated into the proposed permit with the exceptions noted below.

The list of trivial activities and insignificant activities included with the Administrative Corrections was reviewed by the Division. The Division is not acting on this information at this time. The Division requests that Guardian review the list of trivial activities and insignificant activities located on the Division's website at http://www.air.ky.gov/permitting/. The Division also requests that Guardian review the insignificant activity criteria in 401 KAR 52:020, § 6. The Division will identify items as Insignificant Activities in the permit or through an off-permit change letter upon the submittal of form DEP7007DD containing a list of those items that Guardian claims to be insignificant activities. Guardian may officially submit a list of items that are claimed to be trivial activities.
Please identify the item with the trivial activity listed at
http://www.air.ky.gov/permitting/Trivial+Activities.htm. The Division may request supporting calculations or other evidence to support the claim that an activity is insignificant or trivial.

The emissions from natural gas combustion in the Thermal Oxidizers will be included in the source emissions inventory.

RESPONSE TO QUESTIONS

Question #1

1. Guardian is required to calculate the 12-month rolling average for emissions of VOC. In the **Permit Statement of Basis (pg 2 and pg 3)** the calculation methodology for potential emissions of VOC is described. *Is Guardian required to use this same methodology when calculating the 12-month rolling VOC emission rate?* Guardian feels that the Permit Statement of Basis is for background information only and items in it are not enforceable permit conditions so it should include the statement *"The Permit Statement of Basis is intended for informational purposes only and does not include any enforceable terms or conditions"*.

Response to Question #1

Guardian is not required to use the calculation methodology described in the Statement of Basis when calculating the 12-month rolling VOC emission rate. This purpose of including this calculation methodology in the Statement of Basis is to explain how the potential to emit for VOC emissions was determined. Guardian should use a calculation methodology that describes actual emissions in determining the 12-month rolling and 12-month total VOC emission rate.

The Division concurs that the Permit Statement of Basis is for background information only and that items in it are not enforceable permit conditions. The statement *"The Permit Statement of Basis is intended for informational purposes only and does not include any enforceable terms or conditions"* will be included in the Statement of Basis.

Question #2

2. *Does the individual that does the weekly opacity check on the RTO stacks and the scrubber stacks required in* **Section B, 4. Specific Monitoring Requirements (pg 5-87, pg 13-87, pg 23-87, pg 30-87, pg 33-87, pg 36-87, pg 42-87, and pg 49-87)** *need to be Method 9 trained?* Currently the site does have a 3rd party contractor perform the required annual Method 9 test.

Response to Question #2

The individual that does the qualitative visual observation of opacity emissions does not need to be Method 9 trained. If, during the weekly qualitative observation, visible emissions from the stack (s) are seen (not including condensed water vapor within the plume), then the opacity shall be determined by a Method 9 reading, which of course must done by an individual that is Method 9 certified.

Question # 3

3. *If while doing the visual weekly opacity check on the RTO stacks and the scrubber stacks as required in* **Section B, 4. Specific Monitoring Requirements (pg 5-87, pg 13-87, pg 19-87, pg 23-87, pg 30-87, pg 33-87, pg 36-87, pg 42-87, and pg 49-87)** *and visible emissions are present what is the time frame to have the Method 9 test performed?*

Response to Question #3

The Method 9 test should be performed as soon as possible after the visible emissions are observed. The time frame between the sighting of visible emissions and the Method 9 reading should be on the order of a few minutes, not hours, typically the time it takes to notify the personnel that are Method 9 certified and for them to get in position to do the Method 9 reading. The Division strongly recommends having at least two or three individuals Method 9 certified onsite so that the time lapsed between the sighting of the visible emissions and the Method 9 reading is minimized. If visible emissions are seen and for valid reasons there is no individual available to do a Method 9 Reading, then it must be assumed that the opacity standard is being exceeded and the provisions of 401 KAR 50:055 § 1(3) should be followed.

Question # 4

4. The current PSD permit already required the Method 9 test to be performed on the RTOs. Because Guardian has never seen visible emissions the test is performed annually. The new permit states in Section B, 4. Specific Monitoring Requirements (pg 5-87, pg 13-87, pg 42-87, and pg 49-87) it needs to be performed once a quarter until 4 quarters without an opacity reading greater than 20% and then it goes to annual. *Guardian will continue to perform the test annually because it has not had an opacity reading greater than 20% and is already at the step of doing the annual Method 9 test. Please confirm this assumption.*

Response to Question #4

The assumption that an annual Method 9 reading is the requirement for emission units which have not exceed the opacity standard for four consecutive quarters is correct.

Question #5

5. The permit states in **Section B, Periodic Monitoring Requirements (pg 10-87, pg 17-87, pg 46-87, and pg 54-87)** that the bypass damper positions on the 4 paint lines and 2 paint mix kitchens must be monitored on a continual basis and a log must be kept stating when the damper is bypassed to the atmosphere. Does Guardian need to track the damper position when production is not operating? For instance when paint is not in production on weekends the RTOs are in bottleup mode and the dampers are bypassed to the atmosphere.

Response to Question #5

It is not necessary for Guardian to track the bypass line damper position when production is not operating. This is consistent with the requirements of § 63.4568 (a) and 63.4568(b) of Subpart PPPP. The facility must be in compliance with these requirements no later than April 19, 2007.

Question #6

6. Several places in the permit **Section B, Periodic Monitoring Requirements (pg 9-87 and pg 10-87, pg 17-87, pg 46-87, and pg 53-87 and 54-87)** data is required to be electronically monitored on a continual basis. Guardian interprets the functional definition of "continuous" as either the manufacturer's specification for the measuring/monitoring device or the regulatory defined averaging period. Please confirm this understanding.

Response to Question #6

The interpretation that the functional definition of "continuous" is either the manufacturer's specification for the measuring/monitoring device or the regulatory defined averaging period is correct. The requirements for Continuous Parameter Monitoring Systems (CPMS) detailed in § 63.4568 of Subpart PPPP will also need to be included in this interpretation on and after April 19, 2007

Question #7

7. The permit states in **Section B, 5. Specific Monitoring Requirements, h. (pg 6-87, pg 14-87, pg 43-87 and pg 50-87)** that Guardian must keep "inspection reports and maintenance performed in response to recommendations in inspection reports". *Guardian feels that up to 6 months depending on shutdown schedules and parts availability is allowable to respond to recommendations in inspection reports. Please confirm Guardian's assumption.*

Response to Question #7

The Division does not think it is practical to specify a response time to all possible recommendations that might be identified in an inspection report. The time frame for responding to a recommendation in an inspection report will be left to the Ashland Regional Office personnel's discretion.

Question #8

8. Guardian is required in **Section B (pg 19-87, pg 22-87, pg 30-87, and pg 33-87)** to determine the emission rate of copper, sulfuric acid and nitric acid from several of the scrubbers in plating. Are the limits in this Draft Title V permit the same ones listed in the current PSD permit? If so could they be listed in the Title V permit.

Response to Question #8

401 KAR 63:021 §1 specifies that "A source in existence on the effective date of this administrative regulation which was issued a permit pursuant to 401 KAR 50:035 with conditions based on this administrative regulation or 401 KAR 63:022 shall continue to comply with all conditions based on this administrative regulation or 401 KAR 63:022 unless it can demonstrate that a condition is no longer necessary to protect human health and the environment."

Compliance with the copper and nitric acid limits was demonstrated by the testing conducted on June 2 – 4, 1998. However, these tests measured emissions post control. Permit V-05-019 is structured so that there are no requirements for scrubber control systems for the units that these emission limits applied to if the following conditions are met:

(1) Emission rates of these substances are determined through testing or engineering evaluation (pre-control).
(2) The concentration of these substances at or beyond the property boundary determined by an air dispersion model are less than the established health based standards for these substances in ambient air.
(3) The methods used to determine the emission rates of these substances and the air dispersion model used to determine the concentrations of these substances at or beyond the property boundary must be approved by the Division.
(4) Emission rates of particulate matter do not exceed the mass standard requirements specified in 401 KAR 59:010.

If the above conditions are met, the facility has demonstrated compliance with 401 KAR 63:020 and has thus demonstrated that the conditions required by 401 KAR 63:021 are no longer necessary to protect human health and the environment.

The limits for copper, sulfuric acid and nitric acid in the current PSD permit, F-00-006 are not included in permit V-05-019 based on the reasoning detailed above.

The Division will list the emission limits required by 401 KAR 63:021 in permit V-05-019. The emission limits will be accompanied by a compliance demonstration method that assures the emission limits are being met. The compliance demonstration method will be to operate the scrubbers associated with the affected emission units according to the requirements specified in the **Alternate Operating Scenarios** detailed in the permit.
See **RESPONSE TO COMMENT 6B**

Question #9

9. Guardian must test and record the surface tension in Tank 435 per the schedule outlined in **Section B, 4. Specific Monitoring Requirements, (pg 23-87)**. *Guardian has not had any exceedances in the past year so it is assumed that Guardian does not have to start over with the 4-hour testing schedule but can continue on once every 40-hours unless an exceedance occurs. Please confirm this assumption.*

Response to Question #9

This assumption is true except that the event of draining a bath solution from a tank and refilling with a new solution would also require switching to a monitoring schedule of surface tension of once every 4 hours and following the procedures specified in Subpart N for resuming a 40-hour monitoring schedule. See **RESPONSE TO COMMENT 7D**.

Question #10

10. The Chrome Plating Line, 5 (SE2) has the requirement in **Section B, 5. Specific Record Keeping Requirements: Operating and Maintenance Plan, H. Additional Records, 2 (pg 25-87)** to keep "records of the occurrences, duration, and cause (if known) of each malfunction of process, add-on air pollution control, and monitoring equipment". *Guardian complies with Subpart N by measuring the surface tension in Tank 435 so the scrubber is not intended to meet Subpart N. Is Guardian required to log scrubber malfunctions as part of their operations and maintenance plan?*

Response to Question #10

Guardian is not required to log scrubber malfunctions as part of their operations and maintenance plan. All references to air pollution control equipment will be deleted from the above referenced section.

Question #11

11. The permit requires Guardian in **Section B, 8. Alternate Operating Scenarios: Specific Monitoring Requirements: a. (pg 20-87, pg 28-87, pg 31-87, and pg 37-87)** to "Weekly, record the pressure drop across the unit. *What is Guardian required to do if the manufacturer recommends a more stringent schedule for checking the pressure drop or suggest monitoring additional parameters such as recirculation flow rate or make-up flow rate? Some of the scrubbers have multiple stages so can Guardian record the pressure drop of each stage instead of the overall pressure drop? If the pressure drop is out of range can Guardian continue to operate until the next shutdown to clean the mesh pad or acid wash system as this requires the plating line to shutdown?*

Response to Question #11

In regard to **8. Alternate Operating Scenarios**, Guardian should adhere to manufacturer's operating and monitoring recommendations for the purpose of complying with the permit. If a manufacturer's monitoring requirement is more stringent (i.e., more frequent monitoring), then that specified in the permit, then the more stringent requirement should be adhered to. Guardian should maintain records of any monitoring required by the permit. The permit specifies to record the pressure drop of each scrubber unit. As long the pressure drops that are being monitored and recorded are reliable indicators of scrubber performance, Guardian may record the pressure drop of each stage, instead of the overall pressure drop. The permit specifies that the scrubber be in place and functional at all times of operation. If the pressure drop is out of the ranges that have been established as site-specific operating parameters, Guardian must follow the requirements of 401 KAR 50:055 § 1.

Question #12

12. The permit requires Guardian in **Section B, 8. Alternate Operating Scenarios: Specific Monitoring Requirements: a. (pg 20-87, pg 31-87, pg 34-87, and pg 37-87)** to "once per quarter, visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry". *Some of the scrubbers do not have chevron blade mist eliminators so maybe it should say: "If applicable once per quarter, visually inspect the back portion of chevron blade mist eliminator to ensure that it is dry".*

Response to Question #12

The Division concurs. The permit language will be revised to reflect the suggested changes.