INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: April 07, 2006

RE: Valeo Sylvania, L.L.C. / 071-21932-00006

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTV-PMOD.doc 03/23/06

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Mr. Shawn Smith
Valeo Sylvania, L.L.C
1231 "A" Avenue North
Seymour, IN 47274

April 07, 2006

Re: 071-21932-00006
Second Significant Permit Modification to
Part 70 No.: T071-6559-00006

Dear Mr. Smith:

Valeo Sylvania, L.L.C was issued Part 70 operating permit T071-6559-00006 on August 27, 1999 for a stationary source producing automotive plastic lighting assemblies. A letter requesting changes to this permit was received on September 22, 2005. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of the following emission units:

(a) one (1) lens surface coating booth, to be installed in 2006, using flowcoating application method, with a maximum throughput of 144 lenses per hour, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01;

(b) one (1) thermoplastic closed injection molding press, to be installed in 2006 and identified as BMC, for closed injection molding of automotive lighting reflectors, to be included with the existing eleven (11) thermoplastic closed injection molding presses installed in 1978;

(c) one (1) base coat surface coating process, to be installed in 2006, with a maximum throughput of 144 units per hour, using dry filters for particulate control, and exhausting inside the building.

In addition, conditions related to National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products [40 CFR Part 63, Subpart PPPP] [40 CFR 63.4481] [40 CFR 63.4482], have been removed from the Part 70 Permit because Valeo Sylvania stopped using methylene chloride in the pump cleaning station process in 2001. Valeo Sylvania does not have the potential to emit greater than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Linda Quigley/EVP, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call at (973) 575-2555, ext. 3284, or dial (800) 451-6027, and ask for extension 3-6878.

Sincerely,

Original signed by Nisha Sizemore for
Paul Dubenetzky, Assistant Commissioner
Office of Air Quality

Attachments
LQ/EVP
cc: File - Jackson County
Jackson County Health Department
Air Compliance Section Inspector – Vaughn Ison
Compliance Data Section
Administrative and Development
Technical Support and Modeling

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Valeo Sylvania, L.L.C.
1231 "A" Avenue North
Seymour, Indiana 47274

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T071-6559-00006	
Original Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: August 27, 1999 Expiration Date: August 27, 2004

Permit Reopening No.: 071-13326, issued on March 18, 2002
First Administrative Amendment No.: 071-14925, issued on June 12, 2003
First Significant Permit Modification No.: 071-18127, issued on December 9, 2003

Second Significant Permit Modification: 071-21932-00006	Pages Affected: 6, 28, 29, 29a, 33, 34, 36, 37, 37a, 38, 42a and 42b
Issued by: Original signed by NIsha Sizemore for Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: April 07, 2006

(e) One (1) robotic argent paint system, identified as emission unit 10, for coating plastic automotive lighting assembly components, with a maximum capacity of 200 units per hour, using dry filters for overspray control exhausting to one (1) stack, identified as PP-E-03-101.

(f) Eleven (11) Thermoset Closed Injection Molding Presses, installed in 1978, and one (1) Thermoset Closed Injection Molding Press, to be installed in 2006, collectively identified as BMC, for closed injection molding of automotive lighting reflectors with a throughput capacity of 1194.20 pounds of bulk mold compound per hour.

(g) One (1) lens surface coating booth, to be installed in 2006, using flowcoating application method, with a maximum throughput of 144 lenses per hour, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01.

(h) One (1) base coat surface coating process, to be installed in 2006, with a maximum throughput of 144 units per hour, using dry filters for particulate control, and exhausting inside the building.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Two (2) spray paint booths, Aero Coating Booth and the South Wing Manual Spray Paint Booth, identified as emission units 2 and 3, for coating plastic automotive lighting assembly components with a maximum capacity of 1,395 units per hour at Aero Coating, and 100 units per hour at the South Wing Manual Spray Paint Booth, using dry filters for overspray control, and exhausting to stacks PP-E-40, 75 and 88.

(b) Eleven (11) Thermoset Closed Injection Molding Presses, installed in 1978, and one (1) Thermoset Closed Injection Molding Press, to be installed in 2006, collectively identified as BMC, for closed injection molding of automotive lighting reflectors with a throughput capacity of 1194.20 pounds of bulk mold compound per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to CP-36-12-91-0103, issued on December 29, 1987, the quantity of paint usage and solvent content, as percent volatile organic compounds by weight, shall be such that the VOC emissions from the surface coating facilities shall not exceed ten (10) tons per month combined. Therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

D.1.2 Hazardous Air Pollutants (HAPs)

(a) The total styrene delivered to the twelve (12) thermoset closed injection molding presses shall be limited to less than 433.79 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) Styrene loss for the twelve (12) thermoset closed injection molding presses shall be limited to 1% of styrene input. This shall limit styrene emissions from the twelve (12) thermoset closed injection molding presses to less than 4.34 tons per year.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2, the PM overspray from each of the two (2) paint booths (2 and 3) shall not exceed the pound per hour emission rate established as E in the following formula for each unit:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)]

Within 90 days after the issuance of Significant Permit Modification 071-21932-00006, the Permittee shall perform testing on a representative thermoset closed injection molding press, in order to demonstrate compliance with Condition D.1.2, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C – Performance Testing.

D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.7 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent month.per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.8 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the two (2) paint booths (2 and 3) are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from surface coating booth stacks (PP-E-40, 75 and 88) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.10 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and styrene usage limits and/or the VOC and styrene emission limits established in Conditions D.1.1 and D.1.2.

(1) The VOC and styrene content of each coating material and solvent used.

(2) The amount of coating material and solvent less water used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(3) The cleanup solvent usage for each month;

(4) The total VOC and styrene usage for each month; and

(5) The weight of VOCs and styrene emitted for each compliance period.

(b) To document compliance with Condition D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

a) One (1) paint booth, Hard Coat #1, identified as emission unit 8, for coating plastic automotive lighting assembly components with a maximum capacity of 720 units per hour, using an Oscar VIII Overspray Collection and Recovery System for overspray control and exhausting to stacks PP-E-30, 32, 33, and 34.

b) One (1) paint booth, Hard Coat #2, identified as emission unit 9, for coating plastic automotive lighting assembly components with a maximum capacity of 720 units per hour, using an Oscar VIII Overspray Collection and Recovery System for overspray control and exhausting to stacks PP-E-84, 85, and 90.

c) One (1) robotic argent paint system, identified as emission unit 10, for coating plastic automotive lighting assembly components, with a maximum capacity of 200 units per hour, using dry filters for overspray control exhausting to one (1) stack, identified as PP-E-03-101.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Volatile Organic Compound (VOC)

Any change or modification which may increase potential emissions from the paint booths, identified as emission units 8, 9, and 10, to twenty-five (25) tons VOC or more per year, shall require prior approval from the OAQ to determine applicability requirements of 326 IAC 8-1-6, before such change may occur.

D.3.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(Particulate Emission Limitations for Manufacturing Processes), the PM from each of the three (3) paint booths shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.3 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from each of the three (3) paint booths shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the Particulate Matter limit specified in Condition D.3.4 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (PP-E-30, 32, 33, 34, 84, 85, 90, and PP-E-03-101) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.3.7 Record Keeping Requirements

(a) To document compliance with Condition D.3.1, the Permittee shall maintain records in accordance with (1) through (3) below:

(1) The amount and VOC content of each VOC based coating material and VOC based solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) The cleanup solvent VOC usage for each month;

(3) The total VOC usage for each month; and

(b) To document compliance with Condition D.3.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.8 Reporting Requirements

These records shall be made available upon request to the Office of Air Quality.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) lens surface coating booth, to be installed in 2006, using flowcoating application method, with a maximum throughput of 144 lenses per hour, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-3]

(a) Pursuant to 326 IAC 8-1-6 (Requirements for new facilities), BACT for the lens surface coating line shall be the use of a thermal oxidizer system with a capture efficiency of 100% and a destruction efficiency of 95%.

(b) The total amount of VOC delivered to the coating applicators of the lens surface coating booth shall be limited to less than 60.41 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This limit, in conjunction with (a), limits the potential to emit VOC from the lens coating booth to less than 3.02 tons per year.

Compliance with Condition D.4.1(b) shall render the requirements of 326 IAC 2-3 not applicable. Compliance with Conditions D.4.1(a) and D.4.1(b) shall satisfy the requirements of 326 IAC 8-1-6.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct a performance test to verify the overall control efficiency of the thermal oxidizer utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be performed in accordance with Section C – Performance Testing.

D.4.4 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1400^{o}F.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.4.1, as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

Compliance Monitoring Requirements

D.4.5 Parametric Monitoring

(a) The Permittee shall determine fan amperage or duct pressure from the most recent valid stack test that demonstrates compliance with limits in condition D.4.1 as approved by IDEM.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. When for any one reading, the duct pressure or fan amperage is outside the normal range as established in most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A reading that is outside the range as established in the most recent compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.6 Record Keeping Requirements

(a) To document compliance with condition D.4.1 the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in condition D.4.1.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent used on a monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(3) The monthly cleanup solvent usage; and

(4) The total VOC usage for each month.

(5) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(6) Daily records of the duct pressure or fan amperage.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(b) Manufacturing activities such as brazing equipment, cutting torches, soldering equipment, welding equipment.

(c) One (1) base coat surface coating process, to be installed in 2006, with a maximum throughput of 144 units per hour, using dry filters for particulate control, and exhausting inside the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Process Weight Activities

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each of the grinding and machining operations and manufacturing activities such as brazing equipment, cutting torches, soldering equipment, and welding operations, shall not exceed allowable PM emission rate for each unit based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.5.2 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the base coat surface coating process, shall be controlled by dry filters and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Valeo Sylvania, LLC
Source Address: 1231 "A" Avenue North, Seymour, Indiana 47274
Mailing Address: 1231 "A" Avenue North, Seymour, Indiana 47274
Part 70 Permit No.: T071-6559-00006
Facility: One (1) lens surface coating booth, identified as #13
Parameter: VOC
Limit: The total amount of VOC delivered to the coating applicators of the lens surface coating booth shall be limited to less than 60.41 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This limit, in conjunction with D.4.1(a), limits the potential to emit VOC from the lens coating booth to less than 3.02 tons per year.

YEAR:

Month	VOC Emissions This Month	VOC Emissions previous 11 Months	VOC Emissions 12 Month Total
	Column 1	Column 2	Column 1 + Column 2
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Valeo Sylvania, LLC
Source Address: 1231 “A” Avenue North, Seymour, Indiana 47274
Mailing Address: 1231 “A” Avenue North, Seymour, Indiana 47274
Part 70 Permit No.: T071-6559-00006
Facility: Twelve (12) Thermoset Closed Injection Molding Presses
Parameter: Styrene
Limit: The total styrene delivered to the twelve (12) thermoset closed injection molding presses shall be limited to less than 433.79 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Styrene Usage This Month	Styrene Usage previous 11 Months	Styrene Usage 12 Month Total
	Column 1	Column 2	Column 1 + Column 2
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification.

Source Description and Location

Source Name:	**Valeo Sylvania, LLC**
Source Location:	**1231 A Avenue North, Seymour, IN 47274**
County:	**Jackson**
SIC Code:	**3647**
Operation Permit No.:	**T071-6559-00006**
Operation Permit Issuance Date:	**August 27, 1999**
Significant Source Modification No.:	**071-21822-00006**
Significant Permit Modification No.:	**071-21932-00006**
Permit Reviewer:	**Linda Quigley/EVP**

Existing Approvals

The source was issued Part 70 Operating Permit No. 071-6559-00006 on August 27, 1999. The source has since received the following approvals:

(a) First Part 70 Re-Opening No. 071-13326-00006, issued on March 18, 2002;

(b) First Administrative Amendment No. 071-14925-00006, issued on June12, 2003;

(c) First Minor Source Modification No. 071-17822-00006, issued on November 24, 2003;

(d) First Significant Source Modification No. 071-18127-00006, issued on December 9, 2003.

County Attainment Status

The source is located in Jackson County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO_2	Attainment
NO_2	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Not Designated

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Jackson County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for emission offset, 326 IAC 2-3.

(b) Jackson County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Jackson County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	212.57
PM10	212.57
SO_2	0.00
VOC	212.57
CO	0.00
NO_x	0.00

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3), because a nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon Part 70 Permit 071-6559-00006 and pending Part 70 Renewal Permit 071-18360-00006.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Methylene Chloride	Greater than 25
TOTAL	Greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	3.33
PM10	2.93
SO_2	0.05
VOC	84.69
CO	7.14
NO_x	8.5
Lead	0.00004

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a significant source modification and significant permit modification application, submitted by Valeo Sylvania, LLC on September 29, 2005, relating to the addition of a lens surface coating booth which required a BACT analysis, the inclusion of eleven (11) thermoset closed injection molding processes using bulk molding compound which were inadvertently left out of the original Title V Permit, an additional closed injection molding process and the addition of a surface coating line. Finally, the source has removed the use of methylene chloride for cleaning. With this change the source will become a minor source of HAPs. When the initial Part 70 Permit was issued, the source had the potential to emit ten (10) tons per year of any hazardous air pollutant (HAP) or twenty-five (25) tons per year of any combination of HAPs. The source was major for HAPs because they were using methylene chloride in an epoxy pump cleaning station. The source has stopped using methylene chloride in the pump cleaning station process since 2001. Currently, the source is minor for HAPs because it does not have potential to emit greater than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs.

The following is a list of the proposed emission units and pollution control equipment:

(a) one (1) lens surface coating booth, to be installed in 2006, using flowcoating application method, with a maximum throughput of 144 lenses per hour, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01;

(b) one (1) thermoset closed injection molding press, to be installed in 2006, identified as BMC, for closed injection molding of automotive lighting reflectors, to be included with the existing eleven (11) thermoset closed injection molding presses installed in 1978;

(c) one (1) base coat surface coating process, to be installed in 2006, with a maximum throughput of 144 units per hour, using dry filters for particulate control, and exhausting inside the building.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
HC-05-01	RTO	TBD	TBD	1400	70

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	7.74
PM10	7.74
SO_2	0.00
VOC	62.14
CO	0.00
NO_x	0.00

HAPs	Potential To Emit (tons/year)
Styrene	0.61
MEK	0.46
TOTAL	Less than 10

This source modification is subject to 326 IAC 2-7-10.5(f)(4) because it is a modification with a potential to emit greater than or equal to twenty-five (25) tons per year of volatile organic compounds (VOC). Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d), because the modification involves significant changes to the Part 70 Permit.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)						
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**VOC**	**CO**	**NO_X**	**Styrene**
Lens surface coat booth (#13)	0.00	0.00	0.00	3.02	0.00	0.00	--
Closed molding press	0.00	0.00	0.00	0.00	0.00	0.00	0.61
Base coat surface coat	0.77	0.77	0.00	1.74	0.00	0.00	--
Total for Modification	0.77	0.77	0.00	4.76	0.00	0.00	0.61
Emission Offset Significant Levels	25	15	40	40	100	40	--
Total Source After Modification	14.99	14.99	0.00	215.59	0.00	0.00	Single HAP < 10 Total HAPs < 25

This modification to an existing major stationary source is not major because the emissions increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this proposed modification.

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Lens coating booth (VOC)	RTO	Y	60.40	3.02	100	N	N
Surface Coat (PM)	Dry Filter	N	7.74	0.77	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)
PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of the lens coating booth, identified as #13, and the closed injection molding press, will each emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The first report is due no later than July 1, 2006, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 6-3-2 (Process Operations)
The 326 IAC 6-3 revisions that became effective on June 12, 2002 were approved into the State Implementation Plan on September 23, 2005. These rules replace the previous version of 326 IAC 6-3 (Process Operations) that had been part of the SIP; therefore, the requirements of the previous version of 326 IAC 6-3-2 are no longer applicable to this source.

Pursuant to 326 IAC 6-3-2(d), the dry particulate filters for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the one (1) base coat surface coating process at all times when the base coat surface coating process is in operation.

326 IAC 8-1-6 (General Volatile Organic Compound Reduction Requirements)
This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. The lens coating booth, identified as #13, has potential VOC emissions greater than 25 tons per year. Therefore, it is subject to the requirements of 326 IAC 8-1-6.

IDEM, OAQ has determined that the BACT for the one (1) lens surface coating booth, identified as #13 is the use of a RTO with an overall control efficiency of 95% to control VOC emissions from the lens surface coating booth (the detailed BACT analysis is presented in Appendix B). In addition, the source shall comply with the following emission limitations:

(a) The exhaust shall be vented to Regenerative Thermal Oxidizer with a minimum of 95% destruction and 100% capture efficiency for VOC;

(b) The total amount of VOC delivered to the coating applicators of the lens surface coating booth shall be limited to less than 60.41 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This limit, in conjunction with (a), limits the potential to emit VOC from the automated coating booths to less than 3.02 tons per year.

Compliance with the above limits and conditions will satisfy the requirements of 326 IAC 8-1-6.

326 IAC 20-25 (Reinforced Plastics Composites Fabricating)
324 IAC 20-25-1 is applicable to the to sources that emit or have the potential to emit ten (10) tons per year of any hazardous air pollutant (HAP) or twenty-five (25) tons per year of any combination of HAPs, and that meet all of the following criteria:

(1) Manufacture reinforced plastics composites parts, products, or watercraft.
(2) Have an emission unit where resins and gel coats that contain styrene are applied and cured using the open molding process.
(3) Have actual emissions of styrene equal to or greater than three (3) tons per year.

The operation of the twelve (12) Thermoset Closed Injection Molding Presses, identified as BMC, is not subject to the requirements of 20-25-1 because the source does not emit greater than 10 tons per year of single HAP or 25 tons per year of a combination of HAPs.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this modification are as follows:

(a) The one (1) lens surface coating booth, identified as #13, using a RTO for VOC control has applicable compliance determination conditions as specified below:

Testing Requirements - Within sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct a performance test to verify the overall control efficiency of the thermal oxidizer as per Condition D.4.3 of the Part 70 Permit utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration.

(b) The thermal oxidizer has applicable compliance determination conditions as specified

below:

(1) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. For the purposes of this condition, continuous shall mean no less often than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1400^{o}F.

(2) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.4.1 of the Part 70 Permit, as approved by IDEM.

(3) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

(4) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Condition D.4.1 of the Part 70 Permit, as approved by IDEM.

(5) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. When for any one reading, the duct pressure or fan amperage is outside the normal range as established in most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records and Reports. A reading that is outside the range as established in the most recent compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

These monitoring conditions are necessary because the thermal oxidizer must operate properly to ensure compliance with 326 IAC 2-7 (Part 70), 326 IAC 2-3, and 326 IAC 8-1-6.

(c) The thermoset closed injection molding presses have the following compliance determination conditions:

Testing Requirements: Within 90 days after the issuance of Significant Permit Modification 071-21932-00006, the Permittee shall perform testing on a representative injection molding press, in order to demonstrate compliance with Condition D.1.2, utilizing methods as approved by the Commissioner.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 071-6559-00006. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(1) Conditions D.3.1, D.3.2, D.3.9, D.3.10, D.3.11 and D.3.12 that were added to the existing Part 70 permit T071-6559-00006 through First Significant Source Modification no. 071-18127-00006, issued on December 9, 2003, have been removed. In addition, Section D.4 has been removed.

Reason Section D.4 was removed: When the initial Part 70 permit was issued, the source had the potential to emit ten (10) tons per year of any hazardous air pollutant (HAP) and twenty-five (25) tons per year of any combination of HAPs. The source was major for HAPs because they were using methylene chloride in an epoxy pump cleaning station. The source has stopped using methylene chloride in the pump cleaning station process since 2001. Currently, the source is minor for HAPs because it does not have potential to emit greater than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, Unit 12 is no longer subject to 40 CFR 63, Subpart T.

Reason D.3 Conditions were removed: The source was issued Significant Permit Modification No. 071-18127-00006 on December 9, 2003 for the installation of one (1) robotic argent paint system, identified as unit # 10. The requirements for the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products [40 CFR Part 63, Subpart PPPP] were incorporated into this significant permit modification in anticipation that subpart PPPP would take effect soon. The final rule for 40 CFR Part 63, Subpart PPPP became effective as of April 19, 2004; however, the source became an area source of HAPs in 2001. All of the conditions associated with 40 CFR 63, Subpart PPPP are removed in this modification. In this modification, the source will be reclassified as a Minor Source under Section 112 of the Clean Air Act.

~~D.3.1 General Provisions Relating to HAPs [326 IAC 20-1][40 CFR Part 63, Subpart A] [Table 12 to 40 CFR Part 63, Subpart PPPP] [40 CFR 63.2398]~~

~~The provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected source, except when otherwise specified by Table 2 to 40 CFR Part 63, Subpart PPPP. The Permittee must comply with these requirements on and after the effective date of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products.~~

~~D.3.2 National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products [40 CFR Part 63, Subpart PPPP] [40 CFR 63.4481] [40 CFR 63.4482]~~

~~(a) The provisions of 40 CFR Part 63, Subpart PPPP (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products) apply to the affected source. A copy of this rule is available on the US EPA Air Toxics Website at http://www.epa.gov/ttn/atw/plastic/plasticpg.html. Pursuant to 40 CFR 63.4483(b), the Permittee must comply with these requirements on and after the date that is three (3) years after the effective date of 40 CFR Part 63, Subpart PPPP.~~

~~(b) This subpart applies to the surface coating of any plastic parts or products, as described in 40 CFR 63.4481, paragraph (a)(1), and it includes the following subcategories:~~

~~(1) general use coating subcategory~~
~~(2) automotive lamp coating subcategory~~
~~(3) TPO coating subcategory~~
~~(4) assembled on-road vehicle coating subcategory~~

~~These subcategories are further defined in 40 CFR 63.4481, paragraphs (a)(2) through (5).~~

~~(c) The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart PPPP:~~

~~(1) All coating operations as defined in 40 CFR 63.4581;~~
~~(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;~~
~~(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and~~
~~(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating~~

operation.

(d) Terminology used in this section are defined in the CAA, in 40 CFR Part 63, Section 63.2, and in 40 CFR 63.4581, which are incorporated by reference.

D.3.9 Notification Requirements [40 CFR 63.4510]

(a) General. The Permittee must submit the notifications in 40 CFR 40 CFR 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) Initial notification. The Permittee must submit the initial notification required by 40 CFR 63.9(b) for an existing affected source no later than 1 year after the effective date of 40 CFR Part 63, Subpart PPPP. If the Permittee is using compliance with the Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) under 40 CFR 63.4881(d) to constitute compliance with this subpart for plastic part coating operations, then the Permittee must include a statement to this effect in the initial notification and no other notifications are required under this subpart. If the Permittee is complying with another NESHAP that constitutes the predominant activity at the facility under 40 CFR 63.4481(e)(2) to constitute compliance with this subpart for plastic coating operations, then the Permittee must include a statement to this effect in the initial notification and no other notifications are required under this subpart.

(c) Notification of compliance status. The Permittee must submit the notification of compliance status required by 40 CFR 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in 40 CFR 63.4540, 40 CFR 63.4550, or 40 CFR 63.4560 that applies to the affected source. The notification of compliance status must contain the information specified in 40 CFR 63.4510, paragraphs (c)(1) through (11) and in 40 CFR 63.9(h).

D.3.10 Record Keeping Requirements [40 CFR 63.4530] [40 CFR 63.4531] [40 CFR 63.10(b)(1)]

(a) The Permittee must collect and keep records of the data and information specified in 40 CFR 63.4530, paragraphs (c) through (h). Failure to collect and keep these records is a deviation from the applicable standard.

(b) Records must be in a form suitable and readily available for expeditious review. Where appropriate, the records may be maintained as electronic spreadsheets or as a database. Each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record must be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records may be kept off-site for the remaining 3 years.

D.3.11 Reporting Requirements [40 CFR 63.4520]

The Permittee must submit semiannual compliance reports for each affected source according to the requirements of 40 CFR 63.4520, paragraphs (a)(1) through (7). The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in 40 CFR 63.4520, paragraph (a)(2).

D.3.12 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12][326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Title V permit.

~~(a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Title V permit the applicable requirements of 40 CFR 63, Subpart PPPP, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.~~

~~(b) The significant permit modification application shall be submitted no later than twenty-seven months after the effective date of 40 CFR 63, Subpart PPPP.~~

~~(c) The significant permit modification application shall be submitted to:~~
~~Indiana Department of Environmental Management~~
~~Permits Branch, Office of Air Quality~~
~~100 North Senate Avenue, P.O. Box 6015~~
~~Indianapolis, Indiana 46206-6015~~

The rule citation in Condition D.3.2 has been changed from "40 CFR 53 Subpart P" to 326 IAC 6-3-2. Changes (in referenced conditions) made to D.3.7 Record Keeping Requirements.

~~SECTION D.4 FACILITY OPERATION CONDITIONS~~

~~Facility Description [326 IAC 2-7-5(15)]:~~
~~One (1) immersion batch cold-cleaning station, installed in 1978, identified as emission unit 12, for the cleaning of epoxy pumps, with a maximum capacity of 1.92 pounds of cleaning material usage per hour, using no controls and exhausting to stack PP-E-94.~~

~~Emission Limitations and Standards [326 IAC 2-7-5(1)]~~

~~D.4.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]~~

~~The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart T.~~

~~D.4.2 Halogenated Solvent Cleaning NESHAP [326 IAC 20-6-1][40 CFR Part 63, Subpart T]~~

~~This facility is subject to 40 CFR Part 63, Subpart T, which is incorporated by reference as 326 IAC 20-6-1. A copy of the rule is attached.~~

~~(a) The Permittee shall employ a tightly fitting cover that shall be closed at all times except during parts entry and removal and a freeboard ratio of 0.75 or greater.~~

~~(b) The following work and operational practice requirements for the immersion batch cold cleaning station are also applicable:~~

~~(1) All waste solvent shall be collected and stored in closed containers. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.~~

~~(2) If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard area of the solvent cleaning machine.~~

~~(3) The Permittee shall drain solvent cleaned parts for 15 seconds or until dripping has stopped, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while draining.~~

~~(4) The Permittee shall ensure that the solvent line does not exceed the fill line.~~

~~(5) Spills during solvent transfer shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the requirements of condition D.4.2(b)(1).~~

~~(6) When an air- or pump-agitated solvent bath is used, the Permittee shall ensure that the agitator is operated to produce a rolling motion of the solvent but not observable splashing against tank walls or parts being cleaned.~~

~~(7) The Permittee shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip.~~

~~(8) Sponges, fabric, wood, and paper products shall not be cleaned in the degreasing operation.~~

~~D.4.3 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]~~

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.~~

~~**Compliance Determination Requirements**~~

~~D.4.4 Testing Requirements [326 IAC 2-7-6(1)]~~

~~The Permittee is not required to test this facility by this permit or by 40 CFR 63.465, Test Methods. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance.~~

~~**Recordkeeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]**~~

~~D.4.5 Reporting Requirements~~

~~(a) The initial notification report for the immersion batch cold cleaning station required under 40 CFR 63.468(a) was submitted on February 1, 1999.~~

~~(b) The compliance report for the immersion batch cold cleaning station required under 40 CFR 63.468(c) was submitted on February 1, 1999.~~

(2) Sections A.2 and D.1 have been revised and a new Section D.4 has been added as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

~~(f) One (1) cleaning station, identified as emission unit 12, for the cleaning of epoxy pumps, with a maximum capacity of 1.92 pounds of cleaning material usage per hour, using no controls and exhausting to stack PP-E-94.~~

(f) Eleven (11) Thermoset Closed Injection Molding Presses, installed in 1978, and one (1) Thermoset Closed Injection Molding Press, to be installed in 2006, collectively identified as BMC, for closed injection molding of automotive lighting reflectors with a throughput capacity of 1194.20 pounds of bulk mold compound per hour.

(g) One (1) lens surface coating booth, to be installed in 2006, using flowcoating application method, with a maximum throughput of 144 lenses per hour, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01.

(h) One (1) base coat surface coating process, to be installed in 2006, with a maximum throughput of 144 units per hour, using dry filters for particulate control, and exhausting inside the building.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:
…
(b) Eleven (11) Thermoset Closed Injection Molding Presses, installed in 1978, and one (1) Thermoset Closed Injection Molding Press, to be installed in 2006, collectively identified as BMC, for closed injection molding of automotive lighting reflectors with a throughput capacity of 1194.20 pounds of bulk mold compound per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.2 Hazardous Air Pollutants (HAPs)

(a) The total styrene delivered to the twelve (12) thermoset closed injection molding presses shall be limited to less than 433.79 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) Styrene loss for the twelve (12) thermoset closed injection molding presses shall be limited to 1% of styrene input. This shall limit styrene emissions from the twelve (12) thermoset closed injection molding presses to less than 4.34 tons per year.

D.1.4**5** Testing Requirements [326 IAC 2-7-6(1),(6)]

~~The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the Particulate Matter limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

Within 90 days after the issuance of Significant Permit Modification 071-21932-00006, the Permittee shall perform testing on a representative thermoset closed injection molding press, in order to demonstrate compliance with Condition D.1.2, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C – Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.~~9~~**10** Record Keeping Requirements

(a) To document compliance with Condition**s** D.1.1 **and D.1.2**, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC **and styrene** usage limits and/or the VOC **and styrene** emission limits established in Condition**s** D.1.1 **and D.1.2**.

(1) The VOC and styrene content of each coating material and solvent used.

(2) The amount of coating material and solvent less water used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

~~(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) A log of the dates of use;~~

(3) The cleanup solvent usage for each month;

(4) The total VOC **and styrene** usage for each month; and

(5) The weight of VOCs **and styrene** emitted for each compliance period.

(b) To document compliance with Condition ~~D.1.8~~ **D.1.9**, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.~~10~~**11** Reporting Requirements

A quarterly summary of the information to document compliance with Condition**s** D.1.1 **and D.1.2** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) lens surface coating booth, to be installed in 2006, using flowcoating application method, with a maximum throughput of 144 lenses per hour, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-3]

(a) Pursuant to 326 IAC 8-1-6 (Requirements for new facilities), BACT for the lens surface coating line shall be the use of a thermal oxidizer system with a capture efficiency of 100% and a destruction efficiency of 95%.

(b) The total amount of VOC delivered to the coating applicators of the lens surface coating booth shall be limited to less than 60.41 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This limit, in conjunction with (a), limits the potential to emit VOC from the lens coating booth to less than 3.02 tons per year.

Compliance with Condition D.4.1(b) shall render the requirements of 326 IAC 2-3 not applicable. Compliance with Conditions D.4.1(a) and D.4.1(b) shall satisfy the requirements of 326 IAC 8-1-6.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct a performance test to verify the overall control efficiency of the thermal oxidizer utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

D.4.4 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1400^{o}F.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.4.1, as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

Compliance Monitoring Requirements

D.4.5 Parametric Monitoring

(a) The Permittee shall determine fan amperage or duct pressure from the most recent valid stack test that demonstrates compliance with limits in condition D.4.1 as approved by IDEM.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. When for any one reading, the duct pressure or fan amperage is outside the normal range as established in most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records and Reports. A reading that is outside the range as established in the most recent compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.6 Record Keeping Requirements

(a) To document compliance with condition D.4.1 the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in condition D.4.1.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent used on a monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(3) The monthly cleanup solvent usage; and

(4) The total VOC usage for each month.

(5) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(6) Daily records of the duct pressure or fan amperage.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(3) Section D.5 has been revised as follows:

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(c) One (1) base coat surface coating process, to be installed in 2006, with a maximum throughput of 144 units per hour, using dry filters for particulate control, and exhausting inside the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.2 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the base coat surface coating process, shall be controlled by dry filters and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

~~D.5.2 Testing Requirements [326 IAC 2-7-6(1),(6)]~~

~~The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.5.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

Conclusion and Recommendation

The construction of the units in this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 071-21822-00006 and Significant Permit Modification No. 071-21932-00006. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

Indiana Department of Environmental Management
Office of Air Quality

Appendix B to the Technical Support Document (TSD) for a Significant Source Modification and Significant Permit Modification to a Part 70 Operating Permit

BACT Analysis

Source Background and Description

Source Name:	**Valeo Sylvania, LLC**
Source Location:	**1231 "A" Avenue North, Seymour, IN 47274**
County:	**Jackson**
SIC Code:	**3647**
Operation Permit No.:	**T071-6559-00006**
Operation Permit Issuance Date:	**August 27, 1999**
Source Modification No.:	**SSM071-21822-00006**
Significant Permit Modification No.:	**SPM071-21932-00006**
Permit Reviewer:	**Linda Quigley/EVP**

The Indiana Department of Environmental Management (IDEM) has performed the following BACT review for a major modification to an existing stationary source producing automotive plastic lighting assemblies owned and operated by Valeo Sylvania, LLC, located in Seymour, Indiana.

This modification will permit the construction of one (1) lens surface coating booth, identified as #13, with VOC controlled by one (1) regenerative thermal oxidizer, which exhausts to one (1) stack, identified as HC-05-01.

The source is located in Jackson County which is designated as nonattainment for the 8-hour ozone standard and attainment for all other criteria pollutants. Based upon emission calculations completed by IDEM and the source, the modification shall result in potential volatile organic compound (VOC) emissions of greater than twenty-five (25) tons per year. Therefore, pursuant to 326 IAC 8-1-6 the source shall reduce VOC emissions from the new facility, which is not regulated by other provisions of 326 IAC 8, using best available control technology (BACT). The purpose of this BACT Analysis is to evaluate the level of control that constitutes BACT for the affected facility.

The specific facility requiring evaluation in this analysis is one (1) lens surface coating booth, identified as #13.

The Permittee provided the BACT analyses in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, which outlines the steps for conducting a top-down BACT analysis and was approved by IDEM. The steps are listed as follows:

(1) Identify alternative emission control techniques;
(2) Technical Feasibility Analysis of BACT Options;
(3) Rank remaining control technologies by control effectiveness;
(4) Evaluate the technically feasible control technologies; and
(5) Selecting BACT.

Also in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, BACT analyses take into account the energy, environmental, and economic impacts on the source. Emission reductions may be determined through the application of available control techniques, process design, and/or operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution thereby protecting public health and the environment.

Step 1 – Identify Alternative Emission Control Techniques

The first step in evaluating BACT is identifying all applicable control technology options for the flowcoat surface coating of plastic parts. Nine (9) available technologies are initially considered potential control alternatives to reduce VOC emissions from the surface coating operation:

- Non-photochemically reactive solvent substitutes
- Waterborne Coatings
- High solids application
- Transfer efficiency of equipment
- Adsorption
- Incineration
- Chemical Scrubbers
- Condensation, and
- Biofiltration

Step 2 – Technical Feasibility Analysis of BACT Options

Elimination of Technically Infeasible Control Options

Waterborne Coatings and non-photochemically reactive solvent substitutes

Acetone (a non-VOC carrier solvent) was evaluated as a substitute solvent. Test runs showed that the acetone evaporated too rapidly resulting in product quality control problems.

The coating to be used by Valeo Sylvania for automotive headlight lenses is approved by its customer, an automotive original equipment manufacturer, and no variation of the coating formulation is allowed. No water-based coatings have been approved for this purpose.

Due to the quality assurance issues, waterborne coatings and non-chemically reactive solvent substitutes are not considered technically feasible control alternatives and are eliminated from further consideration for the flowcoat surface coating of plastic parts.

High solids application

High solids application is not a feasible technology in the context of a flowcoating system. A fixed viscosity must be maintained to control the flow of coating over the part and control the thickness of the coating applied. Therefore, increasing the solids content in the coating would have to be corrected by a corresponding increase of the make up solvent flow. Therefore, no benefit would be derived.

Due to an increase in solvent flow, VOC emissions would increase, and therefore it is not considered a technically feasible control alternative and is eliminated from further consideration for the flowcoat surface coating of plastic parts.

Transfer efficiency of application equipment

Unlike spray application systems, the flowcoating system achieves essentially 100% transfer efficiency, making it unnecessary to consider increasing transfer efficiency.

Add on Controls

For add-on controls to be feasible, it is desirable to minimize the exhausted air flow and maximize the VOC concentration. At Valeo Sylvania the concentration of VOC in the lens flowcoat line waste stream (1090 ppm) is moderate when compared to total air flow. At such VOC concentrations, the fuel value of the emission is not negligible. As a result, a lower quantity of fuel needs to be added from an outside source to operate the equipment. For this reason, end of stack devices are a feasible means of VOC control at this facility, even without the use of concentrator systems.

(1) Adsorption

Adsorption systems operate by providing a large surface area to which the air pollutant can adhere. Carbon is commonly used as the adsorptive solid. Due to its internal pore structure, activated carbon has significant surface area, giving it a large adsorption capacity.

Concentrators

It has been determined that a carbon adsorption unit would not be recommended for two reasons. First, either carbon or zeolite may be used as the adsorption bed. Second, although a carbon bed itself may be less expensive than a zeolite bed, the carbon bed would require a fire suppression system to control fires associated with the carbon beds. The carbon bed with a fire suppression system would cost essentially the same as the safer zeolite bed. Although a fire suppression system could put out a fire, the occurrence of a fire would entirely shut down the process thus increasing the overall cost of a carbon system with the indirect cost of lost production. Due to the fire hazard and similar capital cost to the zeolite unit, the carbon unit was not further evaluated.

Neither the carbon or zeolite concentrator systems are feasible because the air concentration of VOCs (1090 ppm) is beyond the range for which such systems are normally designed. The use of concentrators on the air stream would result in rapid breakthrough, loss of VOCs and lowered VOC removal efficiency.

(2) Incineration

Two types of incineration systems were evaluated for use at the facility: a recuperative catalytic system, and a regenerative thermal oxidizer system. As indicated above, a concentrator with an incinerator was not considered because the air stream VOC concentration is already high enough and concentrator systems would not improve the removal efficiency.

Recuperative Catalytic Oxidizer

The catalytic oxidizer system operates similarly to a common afterburner, but uses a catalyst to lower the oxidation temperature of the hydrocarbons, thus reducing the fuel requirements. Typically, a common afterburner system will use 20 times more fuel than a catalytic incineration system and therefore was not considered further in this evaluation.

Catalytic oxidation systems are technically feasible (without concentrator), achieve about 85% destruction efficiency and will be evaluated further for use in controlling emissions from the lens flowcoat line.

Regenerative Thermal Oxidizer Systems

Regenerative thermal oxidizer systems combine a combustion chamber with a heat recovery system to recover up to 95 percent of the heat generated during the thermal oxidation process. Air exhausted from the combustion chamber passes through one of two beds of ceramic packing to recover the heat. Inlet air (with VOCs from the paint booth) passes through the alternate bed and is preheated close to the combustion temperature. Air flow is switched between beds ever 1.5 to 8.0 minutes. The heat recovery system recovers 95% of the heat, thereby reducing the system fuel requirements.

The regenerative thermal oxidizer system is technically feasible and achieves at least 95% destruction efficiency. The regenerative thermal oxidizer system will be evaluated further for use in controlling emissions from the lens flowcoat line.

(3) Chemical Scrubber

A chemical scrubber is an absorption system in which the waste stream is dissolved in a solvent. Water is the most common solvent used; other solvents are used dependent upon the components of the waste stream. Scrubbers are often not a feasible option because waste streams generally contain several components, and thus may require a different solvent for each target chemical. The waste stream at this facility is primarily IPA, which is miscible in water. The IPA could not be readily separated from the water and a high volume waste water stream would result. Chemical scrubbers achieve about 90% removal efficiency which is less than the removal efficiency of the RTO system.

Use of a chemical scrubber would result in higher emissions and a high volume waste water stream and therefore it is not considered a technically feasible control alternative and is eliminated from further consideration for the flowcoat surface coating of plastic parts.

(4) Condensation

Condensation systems refrigerate the waste stream to condense the gases. The condensate is then collected and reused on-site or treated as a waste. This system is highly efficient (95%) for streams with high concentrations of vapors. The concentrations in Valeo Sylvania's waste stream are low relative to the effective range of condensation systems. Therefore it is not considered a technically feasible control alternative and is eliminated from further consideration for the flowcoat surface coating of plastic parts.

(5) Biofiltration

Biofiltration is a relatively new technology in the United States. This system is a land intensive setup in which contaminated air is fed under an active bed of soil containing microorganisms. As the air rises through the soil, the microorganisms consume and convert the chemicals to carbon dioxide and water. Biofiltration has been used successfully to control VOC emissions in Europe. However, there are only a few applications of biofilters for VOC control in the United States. In addition, biofilters achieve a destruction efficiency of about 60%. For these reasons, it is not considered a technically feasible control alternative and is eliminated from further consideration for the flowcoat surface coating of plastic parts.

The USEPA's RACT /BACT /LAER clearinghouse (RBLC) database was also searched for the purpose of identifying comparable sources that have implemented BACT for the affected facilities. This search was performed in the following steps:

(a) A review of BACT determinations utilizing the EPA RBLC database was conducted and the results are detailed in Table 1 below. Searches for "flowcoat", "headlight", "lens", "UV", "polycarbonate", and related words included in the process name produced no results. Since surface coating of plastic parts may be found under several SIC codes, the primary search was conducted for all Case-by-Case determinations in the US with the Process Type 41.016 (Plastic Parts & Products Surface Coating – except 41.015).

The initial search performed in August 2005 showed a total of 11 facilities with 23 processes listed. A follow up search in October 2005 showed a total of 23 facilities with 36 processes listed. However, the 13 additional processes found in the October search were not included in this BACT because all of the processes except one were unrelated to coating automobile headlight lenses (i.e.: rubber coating, lithographic printing sources, etc…). The additional facility and process found, Honda Manufacturing of Alabama, RBLC ID: AL-0192, was for coating plastic bumpers. The BACT determination only included VOC content limits on the paints and did not include end-of-stack controls. This BACT is less restrictive than and less comparable than the top three facilities (which include some controls). Therefore, it does not impact the Review of Similar BACT Determinations of this analysis.

(b) All facilities listed spray application of paints and none listed flowcoating, UV protective coating, polycarbonate or automobile headlight lenses. Five (5) facilities were SIC 3714 (motor vehicle parts and accessories), one (1) was SIC 3711 (motor vehicles and car bodies), three (3) were SIC 3089 (plastic products), one (1) was SIC 3479 (metal coating and allied services), and one was SIC 3751 (motorcycles, bicycles and parts). Eight (8) of the facilities conducted spray painting of automotive plastic parts, however, four (4) of those were specifically for bumpers or interior plastic parts (none of which are polycarbonate). No contact could be established with the remaining four (4) facilities. The remaining four (4) are also unlikely to be for headlight lenses or other UV coatings on polycarbonate. For example, Delphi Automotive makes electrical components and therefore is not likely to be coating lenses. Orion was never constructed and was not comparable since there were adhesion, primer, basecoat, and topcoat lines, but no UV coating line (their permit has since been cancelled). Likewise, Artisan lists a topcoat, primer and lacquer, but no UV coating. Therefore, none of the facilities operate the same process as Valeo Sylvania.

(c) Of the 11 Case-by-Case determinations, one (Mascotech) was a LAER determination, one was a supplemental environmental project to offset a non-compliance fine (SEP-Venture), and one (Orion) was never constructed. One determination (Nailite) was rescinded after it was determined that capture was too low and the facility accepted a synthetic minor limit rather than pursue BACT. Of the remaining seven (7) BACT determinations four (4) were coating content limits only. The top three (3) BACT determinations were add-on controls, including a mix of RTO systems, carbon concentrators with RTO systems and uncontrolled processes. Estimated or determined capture efficiencies were 70 to 90% and destruction efficiencies were 80 to 97%. Overall control of one (1) facility (Albar) was estimated at less than 50%, including uncontrolled processes.

Review of Table 1 reveals that add-on control devices with overall control (including capture and destruction) efficiencies from 50% to 67% have been established as BACT for automotive VOC sources, including surface coating operations.

Table 1- BACT determinations for Plastic Parts & Products Surface Coating

ID	Date	BACT	Determination	Facility
IN-0069	8/9/96	BACT	(95% destruction, capture unknown) RTO (57% overall) Carbon Concentrator with RTO coating content limits	Toyota – Gibson Co, IN

ID	Date	BACT	Determination	Facility
MI-0279	7/26/00	BACT	(67% overall) RTO, coating content limits	Textron, Michigan
MI-0339	7/18/02	BACT	(50% overall) Carbon Concentrator with RTO	Albar Industries, Michigan
MI-0246	6/11/98	PSD BACT	Coating content limits	Delphi, Michigan
MI-0255	1/12/99	BACT	Coating content limits	Ford Visteon, Michigan

Step 3 – Ranking of Technically Feasible BACT Options

The following table ranks the viable control options for flowcoat surface coating of plastic parts:

Rank	Control Device	Control Efficiency (% destruction)
1	Regenerative Thermal Oxidizer (RTO)	95%
2	Recuperative Catalytic Oxidizer	85%
3	No Add On Control	0%

Step 4 – The BACT Selection Process

Evaluation of the Most Cost Effective Controls

The economic, environmental, and energy impacts of the feasible control options were determined for the flowcoat lens coating operation. Order of magnitude cost estimates for each of the control options were generated using the USEPA publication, *OAQPS Cost Control Manual*, vendor quotations, and associated trade journals.

The following table summarizes the economic, environmental, and energy impacts of the three feasible control options for the lens coating operation.

Economic, Environmental and Energy Impacts for Lens Coating Operation, VOC Control Alternatives

Control Option	VOC Emissions After Control (tons/yr)	Emissions Reduction (tons/yr)	Overall Control Efficiency (%)	Economic Impacts			Collateral Environmental Impacts	Energy Impacts
				Total Annualized Cost ($/yr)	Average Cost Effectiveness ($/ton)	Incremental Cost Effectiveness ($/ton)		
RTO	3.02	57.40	95	$85,198.44	$1,484	N/A	SO_2, NO_X, CO - each negligible	1.53 MMcf natural gas usage 47,929 kwh/yr
Catalytic Incineration	9.06	51.34	85	$138,554	$2,698	N/A	SO_2, NO_X, CO - each negligible	2.44 MMcf natural gas usage 50,391 kwh/yr
No Control	60.41	0.0	0.0	$0	$0	$0	None	None

The average cost effectiveness for the RTO is $1,484 per ton of VOC removed. This estimate is considered economically feasible, so this option is an economically feasible control alternative. In addition, the advantage of using the RTO verses the catalytic incinerator is that the RTO has a control efficiency of 95%, whereas the catalytic incinerator has a control efficiency of 85%.

Step 5 – Selecting BACT

IDEM, OAQ has determined that the BACT for the one (1) lens surface coating booth, identified as #13 is the use of a RTO with an overall control efficiency of 95% to control VOC emissions from the lens surface coating booth. In addition, the source shall comply with the following emission limitations:

(a) The exhaust shall be vented to Regenerative Thermal Oxidizer with a minimum of 95% destruction and 100% capture efficiency for VOC;

(b) The total amount of VOC delivered to the coating applicators of the lens surface coating booth shall be limited to less than 60.41 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This limit in conjunction with (a) limits the potential to emit VOC from the one (1) lens surface coating booth to less than 3.02 tons per year.

Compliance with the above limits and conditions will satisfy the requirements of 326 IAC 8-1-6.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Valeo Sylvania, LLC
Plant Location: 1231 "A" Avenue North, Seymour, Indiana 47274
Significant Source Modification: SSM071-21822-00006
Significant Permit Modification: SPM071-21932-00006
Plant ID: 071-00006
Reviewer: Linda Quigley/EVP
Date: December 13, 2005

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
UV SRC Topcoat	7.4	68.73%	0.0%	68.7%	0.0%	23.86%	0.00200	144.000	5.05	5.05	1.45	34.92	6.37	0.00	21.17	100%
Isopropyl Alcohol	6.6	100.00%	0.0%	100.0%	0.0%	0.00%	0.01300	144.000	6.59	6.59	12.34	296.08	54.03	0.00	N/A	100%
Insignificant Activity																
Barnz UVACR 100	9.5	9.66%	0.0%	9.7%	0.0%	13.99%	0.00300	144.000	0.92	0.92	0.40	9.52	1.74	7.74	6.57	50%

State Potential Emissions **13.79** **330.99** **62.14** **7.74**

PM Removal Efficiency of 90%: **0.77**

Controlled by an RTO with 100% Capture and 95% Destruction Efficiency: **3.02**

METHODOLOGY

Method of application is flowcoating. Therefore, transfer efficiency = 100%

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emissions

Company Name: Valeo Sylvania, LLC
Plant Location: 1231 "A" Avenue North, Seymour, Indiana 47274
Significant Source Modification: SSM071-21822-00006
Significant Permit Modification: SPM071-21932-00006
Plant ID: 071-00006
Permit Reviewer: Linda Quigley/EVP
Date: December 13, 2005

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)		Weight % MEK		MEK Emissions (ton/yr)
UV SRC Topcoat	7.4	0.00200	144.000		5.00%		0.46
Isopropyl Alcohol	6.6	0.01300	144.000		0.00%		0.00

Total State Potential Emissions **0.46**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
Emissions from Closed Molding Operations

Company Name: **Valeo Sylvania, LLC**
Address City IN Zip: **1231 A Avenue North, Seymour, IN 47274**
Significant Source Modification: **SSM071-21822-00006**
Significant Permit Modification: **SPM071-21932-00006**
Reviewer: **LQ/EVP**
Date: **12/13/2005**

PRODUCT	TYPE	STATUS	V [cm^3]	sg [g/cm^3]	BOM [lb]	BOM AS OF 4/8/03	Press Size	Cycle Time [sec]	sec per hour	hour per day	day per week	week per year	Refl per year	lbs molded per year		% Styrene in BMC	Max lbs of Styrene Input	Max lbs of Styrene Emitted	BMC Press #
NEON	H/L (BUX-RHD	CURRENT	244	1.838		0.9907	500 ton	57.0	3600	24	7	52	1,103,495	1,093,232	BMCI	11.2%	122,442	1,224	25
GMT 257	H/L	CURRENT	219	1.900	0.9173	0.9095	500 ton	62.3	3600	24	7	52	1,009,618	918,248	BMCI	11.2%	102,844	1,028	26
2003 CLIO	H/L	CURRENT	156	1.838	0.6321	0.6830	500 ton	53	3600	24	7	52	1,186,777	810,569	BMCI	11.2%	90,784	908	27
GMX 320	H/L	CURRENT	248	1.900	1.0388	0.9950	500 ton	81.0	3600	24	7	52	776,533	772,651	BMCI	11.2%	86,537	865	28
02 Viper		CURRENT	196	1.838		0.7930	250 ton	75.0	3600	24	7	52	838,656	665,054	BMCI	11.2%	74,486	745	41
GMT 265	DRL F/L	CURRENT	111	1.838		0.4500	250 ton	55	3600	24	7	52	1,143,622	514,630	BMCI	11.2%	57,639	576	42
03 ST22 Chrysler	H/L	CURRENT	327	1.900	1.3697	1.2950	500 ton	65.0	3600	24	7	52	967,680	1,253,146	REC T70	3.7%	46,366	464	29
05 WK	H/L (BUX-RHD	CURRENT	266	1.838	1.0777	1.0777	500 ton	60.0	3600	24	7	52	1,048,320	1,129,774	REC T70	3.7%	41,802	418	39
05 WK	H/L (BUX-LHD	CURRENT	266	1.838	1.0777	1.0777	500 ton	60.0	3600	24	7	52	1,048,320	1,129,774	REC T70	3.7%	41,802	418	40
05 WK	H/L (DOM.)	CURRENT	266	1.838	1.0777	1.0777	500 ton	60.0	3600	24	7	52	1,048,320	1,129,774	REC T70	3.7%	41,802	418	44
01 RS	H/L	CURRENT	205	1.900	0.8587	0.9132	500 ton	55	3600	24	7	52	1,143,622	1,044,355	REC T70	3.7%	38,641	386	45
																Total:	745,143	**7,451**	**lbs styrene**
																		3.73	**tons styrene per year**
Proposed Press:																			
Neon	H/L (BUX-RHD	Proposed	244	1.838		0.9907	500 ton	57	3600	24	7	52	1,103,495	1,093,232	BMCI	11.2%	122,442	1,224	Lean Cell

Emission factor = 1% styrene emitted, based on information supplied by manufacturer.
Emissons based on worst case material and maximum load for each press.
Note: Permittee will be required to test a representative molding press to verify the styrene emission factor.

Modification Total: **0.61 tpy**

Emissions from 12 presses: **4.34 tpy**

Maximum Input of Styrene: **867,585** **433.79 tpy**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
RTO

Company Name: **Valeo Sylvania, LLC**
Address City IN Zip: **1231 A Avenue North, Seymour, IN 47274**
Significant Source Modification: **SSM071-21822-00006**
Significant Permit Modification: **SPM071-21932-00006**
Reviewer: **LQ/EVP**
Date: **12/13/2005**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
0.17	1.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/	1.415E-03	5.659E-03	4.468E-04	7.446E-02	4.095E-03	6.255E-02

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combin
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recircu

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,0(
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000