

STATE OF MISSOURI



PERMIT BOOK

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 042008 - 001 Project Number: 2007-09-052

Parent Company: Ford Motor Company

Parent Company Address: The American Road, Dearborn, MI 48126

Installation Name: Ford Motor Company Kansas City Assembly Plant

Installation Address: 8121 U.S. NE Highway 69, Claycomo, MO 64119

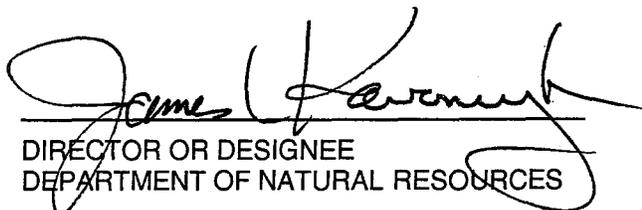
Location Information: Clay County, S27, T51, R32

Application for Authority to Construct was made for:  
Plantwide Applicability Limitation permit for Volatile Organic Compounds with pre-approved changes. This review was conducted in accordance with Section (8), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

- 
- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

MAR 31 2008

EFFECTIVE DATE

  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within 18 months from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within 18 months after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

Ford Motor Company Kansas City Assembly Plant  
Clay County, S27, T51, R32

1. **Superseding Condition**

The conditions of this permit supersede all special conditions found in the following previously issued construction permits and amendments from the Air Pollution Control Program.

| Permit Number        |
|----------------------|
| 0678-008             |
| 1084-003 through 009 |
| 0386-003             |
| 0990-009             |
| 0690-016             |
| 0590-001             |
| 1089-001A            |
| 0293-003             |
| 1193-015             |
| 0594-034             |
| 0293-003A            |
| 112000-014           |
| 082001-022           |
| 082001-022A          |
| 112000-014A          |
| 042006-012           |

2. **Annual Emission Limitation – Plantwide Applicability Limitation (PAL)**

A. Ford Motor Company Kansas City Assembly Plant shall emit less than 2,363 tons of Volatile Organic Compounds (VOCs) from the entire installation in any consecutive 12-month period. The consecutive 12-month period shall not include time periods prior to issuance of this construction permit. Emissions during periods of start-up, shutdown, and malfunction of the control device shall be counted towards the limit during the 12-month period.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- B. Ford Motor Company Kansas City Assembly Plant shall track VOC emissions and calculate the monthly and consecutive 12-month VOC emissions from the entire installation. Attachment A, or equivalent forms approved by the permitting authority shall be used to demonstrate compliance with Special Conditions 2.A.
  - C. Ford Motor Company Kansas City Assembly Plant shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.B. indicate that the source exceeds the limitation of Special Conditions Number 2.A.
  - D. Ford Motor Company Kansas City Assembly Plant shall keep documentation of any emission factors used to demonstrate compliance with Special Condition 2.A. Emission factors must be obtained from the most recent edition of AP-42, *Compilation of Air Pollutant Emission Factors*, the most recent stack performance test results, a mass balance approach using the Material Safety Data Sheets (MSDS) of all materials, and/or by a method approved by the permitting authority. Documentation sufficient to support the emission factors must accompany Attachment A required by Special Condition 2.B.
  - E. Ford Motor Company Kansas City Assembly Plant shall keep documentation of any overall control efficiencies used to demonstrate compliance with Special Condition 2.A. Overall control efficiency is the product of the capture efficiency and control efficiency of the pollution control device. Documentation sufficient to support the capture and control efficiencies must accompany Attachment A required by Special Condition 2.B.
  - F. Ford Motor Company Kansas City Assembly Plant shall keep documentation of all data relied upon, including but not limited to, any quality assurance/quality control data, in calculating the monthly and annual VOC emissions.
3. Operational Requirement
- A. Ford Motor Company Kansas City Assembly Plant shall keep the ink, solvents and cleaning solutions in sealed containers whenever the materials are not in use. Ford Motor Company Kansas City Assembly Plant shall provide and maintain suitable easily read permanent markings on all inks, solvent and cleaning solution containers used with this equipment.

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#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

4. Pre-Approved Operational and Equipment Modifications
  - A. Ford Motor Company Kansas City Assembly Plant is authorized to perform the physical or operational changes, or changes deemed consistent with those physical or operational changes, listed in Attachment B, *Pre-Approved Changes*, without applying for or obtaining a construction permit or amendment from the permitting authority. Any increase or decrease in emissions of VOC resulting from the construction and operation of any of the above pre-approved changes are subject to the requirements listed in Special Condition 2. Any increase or decrease in emissions of non-VOC criteria air pollutants resulting from the construction and operation of any of the above pre-approved changes are subject to the requirements listed in Special Condition 23.
  - B. Ford Motor Company Kansas City Assembly Plant shall maintain a log of equipment installed and/or modified under the Pre-Approved Changes and the date on which construction and/or modification and operation began. In addition, Ford Motor Company Kansas City Assembly Plant shall maintain a log of equipment removed from the installation and the date on which it was removed. The log must account for all equipment present at the installation at any given time. Attachment C, or equivalent forms approved by the permitting authority, may be used for this purpose.
  - C. Ford Motor Company Kansas City Assembly Plant shall notify the permitting authority of all activities associated with any Pre-Approved Change according to Special Condition 5 and 6.
  - D. If Ford Motor Company Kansas City Assembly Plant wishes to make physical or operational changes that are not deemed consistent with the physical or operational changes listed in Attachment B of this construction permit and are not exempt from the construction permit rule, then Ford Motor Company Kansas City Assembly Plant must first apply for and obtain a construction permit or amendment according to 10 CSR 10-6.060, *Construction Permits Required*.
5. Notification of Actual Construction of Pre-Approved Change
  - A. Ford Motor Company Kansas City Assembly Plant shall submit written notification to the permitting authority (including the regional office) at least ten days prior to the actual construction of any pre-approved change listed in Attachment B. The notification shall contain the following:
    - 1) Detailed description of the physical or operational change including the affect on existing equipment;
    - 2) A plant layout diagram with representation of existing equipment and

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## SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- physical or operational changes;
  - 3) A schedule of construction activities related to the pre-approved change;
  - 4) A statement of applicability for any New Source Performance Standard, National Emissions Standard of Hazardous Air Pollutants and/or state regulations not identified as core requirements in the operating permit;
  - 5) An emissions calculation sheet for the pre-approved change including any modeling required by Special Condition 7;
  - 6) A calculation sheet for the potential emissions of all criteria air pollutants except VOC for the pre-approved change;
  - 7) A summation of the potential emissions from completed and proposed pre-approved changes;
  - 8) A statement of verification that the physical or operational change will not result in installation emissions that exceed the limitations stated in Special Condition 2; and
  - 9) A summary of the impact analysis on the capture efficiency as outlined in Special Condition 9.D.
- B. This notification shall become an enforceable part of this construction permit upon receipt by the permitting authority and Ford Motor Company Kansas City Assembly Plant shall comply with the terms and conditions of the notification.
- C. The permitting authority may disapprove any activity that has not been demonstrated to the satisfaction of the Program to be related to the pre-approved changes. At that time, Ford Motor Company Kansas City Assembly Plant shall cease construction of the change until an appropriate authorization of the activities is obtained (such as a construction permit, if necessary).
6. Notification of Actual Start-up of Pre-Approved Change
- A. Ford Motor Company Kansas City Assembly Plant shall submit written notification to the permitting authority (including the regional office) at least ten days prior to the actual start-up or operation of any pre-approved change listed in Attachment B. The notification shall contain the following:
    - 1) Reference to the notification of actual construction including date of notification and brief description of change;
    - 2) Verification that the physical or operational change was completed as described in the original notification; and
    - 3) Scheduled date operations will be commenced.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- B. It is a violation of this construction permit for Ford Motor Company Kansas City Assembly Plant to construct, modify or operate the installation not in accordance with the notification of 6.A. above.
7. Ambient Air Quality Analysis Requirement for Individual Hazardous Air Pollutant(s) (HAPs) prior to submitting notification of a pre-approved change, Ford Motor Company Kansas City Assembly Plant must evaluate HAP emissions for the pre-approved change, not subject to a MACT, according to the following methodology:
- A. For all HAPs listed in *Draft Acceptable Ambient Levels for Missouri* with a potential to emit greater than their respective threshold levels, Ford Motor Company Kansas City Assembly Plant shall perform screen modeling using the methods outlined in Special Condition 8 to determine the one-hour, eight-hour, 24-hour, and/or annual concentration of any individual HAP. The results of the screen modeling must be submitted with the notification required in Special Condition 5 for all pre-approved changes containing HAP, not subject to a MACT.
  - B. The eight-hour, 24-hour and/or annual concentrations shall be compared to the current, available Risk Assessment Levels for each HAP listed in *Draft Acceptable Ambient Levels for Missouri*.
  - C. If the screen modeling indicates that the emissions from the pre-approved change at the installation exceeds acceptable concentration levels as stated in the most current version of *Draft Acceptable Ambient Levels for Missouri*, then Ford Motor Company must submit and obtain approval for either of the following options prior to submitting notification of construction (Special Condition 5):
    - 1) Refined modeling, or
    - 2) An amendment to the flexible construction permit to include a federally enforceable limit on HAP emissions.
8. Screen Modeling Method for Individual HAPs
- A. Ford Motor Company Kansas City Assembly Plant shall use the preferred screening method stated in 40 CFR Part 51 Appendix W, "*Guideline on Air Quality Models*".
  - B. The emission rate to be used in the model shall be the potential to emit of the individual HAP. Stack parameters used in the model shall be representative of actual stack parameters including height, diameter, flow rate/velocity, temperature, etc. If Ford Motor Company Kansas City Assembly Plant wishes to use values other than the default values for any

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The permittee is authorized to construct and operate subject to the following special conditions:

parameter with a default value, Ford Motor Company Kansas City Assembly Plant shall submit justification and obtain approval for the proposed value prior to use in the model.

### 9. Capture and Control Equipment

- A. The specified control device (e.g. thermal oxidizer, carbon adsorber, and/or fluidized bed carbon concentrator) must be in use at all times when a control efficiency is claimed for compliance with the VOC emissions limitation. When a control efficiency is claimed, the control device shall be operated and maintained in accordance with the manufacturer's specifications and within the temperature range determined in Special Condition 10.
  
- B. Thermal Oxidizer Requirements
  - 1) The operating temperature shall be continuously monitored and recorded when a control efficiency is claimed for compliance with the VOC emissions limitation. The operating temperature of the thermal oxidizer shall be maintained on a rolling 3-hour average within 50 degrees Fahrenheit of the average temperature of the oxidizer recorded during the compliance test specified in Special Condition 10. The acceptable temperature range may be reestablished by performing a new set of emission tests. The most recent sixty months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources' personnel upon request.
  - 2) An assessment of thermal oxidizer valve operation and leakage shall be conducted as part of the maintenance and inspection activities, at least annually.
  
- C. Carbon Adsorber and Fluidized Bed Concentrator Requirements
  - 1) Ford Motor shall monitor the emissions from the carbon adsorption and/or fluidized bed concentrator unit with an appropriate monitoring device to ensure that "breakthrough" has not occurred when a control efficiency is claimed for compliance with the VOC emissions limitation.
  - 2) The monitoring device that is chosen, the parameters that will be monitored (e.g. desorption temperature), the frequency that the unit is monitored, and the level of organic emissions that constitutes "breakthrough" shall be developed in consultation with the Air Pollution Control Program Enforcement Section. A proposal shall be submitted to the Enforcement Section within fifteen (15) days from the issuance of this permit.

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## SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- D. Capture Equipment Requirements
- 1) Ford Motor Company Kansas City Assembly Plant shall evaluate all pre-approved changes that involve VOC emissions directed to emission control equipment for potential impacts to emission control equipment capture efficiency. This evaluation shall include the following:
    - a) An impact analysis of the pre-approved change on the capture efficiency;
    - b) An determination of the need for a new capture efficiency test based on the impact analysis;
    - c) A summary of the evaluation to be included in the Notification of Actual Construction as stated in Special Condition 5.
  - 2) Ford Motor Company Kansas City Assembly Plant shall develop a monitoring plan for each capture system (booth) that:
    - a) Identifies the operating parameter(s) to be monitored to assure capture efficiency,
    - b) Explains why this parameter is appropriate for demonstrating ongoing compliance,
    - c) Identifies the specific monitoring procedures, and
    - d) Specifies the operating parameter value or range of values (or the procedures for establishing the values) that shall be maintained to demonstrate capture efficiency is being maintained.
  - 3) Ford Motor Company Kansas City Assembly Plant shall install and maintain, for any intermittently controllable work station, a system to monitor when bypass of the control device system occurs while the work station is in operation.
  - 4) Ford Motor Company Kansas City Assembly Plant shall maintain an operating and maintenance log for the capture and control systems (enclosures and thermal oxidizers) for a period of (60) sixty months which shall include the following:
    - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
    - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
    - c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- A. Ford Motor Company Kansas City Assembly Plant shall conduct performance tests on existing control devices in the following table and any future control devices used for compliance with the PAL.

| Control Device   | Location Description                      |
|------------------|---|
| Thermal Oxidizer | Passenger Topcoat Ovens RTO               |
|                  | Commercial Guidecoat Booth RTO            |
|                  | Commercial Guidecoat Oven RTO             |
|                  | Commercial Topcoat Booth RTO              |
|                  | Commercial Topcoat Ovens RTO              |
| Carbon Wheel     | Commercial Guidecoat Booth Carbon Wheel 1 |
|                  | Commercial Guidecoat Booth Carbon Wheel 2 |
|                  | Commercial Topcoat Carbon Wheel 3         |
|                  | Commercial Topcoat Carbon Wheel 4         |
|                  | Commercial Topcoat Carbon Wheel 5         |
|                  | Commercial Topcoat Carbon Wheel 6         |

Ford Motor Company Kansas City Assembly Plant shall determine the VOC and HAP destruction and/or removal efficiencies and operating parameters of these control devices when all the processes controlled by these devices are in normal operation. These control efficiencies will be used in Attachment A for compliance.

- B. For each capture system, Ford Motor Company Kansas City Assembly Plant shall:
- 1) Confirm that the capture system continues to meet the requirements of EPA Method 204 from an approved performance test with no changes to operating parameters, or
  - 2) Conduct a performance test to determine the capture efficiency and establish the value or range of values for the selected operating parameter(s) when all the processes controlled by these devices are in normal operation. These capture efficiencies shall be used in Attachment A for compliance.
- C. Section 6 of EPA method 204 of 40 CFR part 51, Appendix M shall be used to confirm that an enclosure meets the requirements for permanent total enclosures. If the enclosure meets the permanent total enclosure criteria and directs all VOC to a control device, a capture efficiency of 100 percent may be assumed.
- D. Henceforth, within 5 years of the most recent performance tests, Ford Motor Company Kansas City Assembly Plant shall; by June 30, 2008 for the Passenger Paint Shop, and by December 31, 2008 for the Commercial Paint Shop:

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## SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- 1) Conduct performance tests to verify the operating parameters and/or the control efficiencies of the control devices ; and
- 2) Confirm the capture efficiencies of the total or partial enclosures by Special Condition 10.B.1) or 10.B.2).

For any control device installed subsequent to the issuance of this construction permit, performance tests shall be performed within 60 days after installation, but not later than 180 days after initial start-up of the control equipment.

- E. Testing shall be conducted in accordance with the procedures outlined in Special Condition 11. Ford Motor Company Kansas City Assembly Plant shall maintain a record of the results of all performance tests required by Special Conditions 10.A. and 10.B.

### 11. Proposed Test Plan

- A. A completed Proposed Test Plan Form (enclosed) must be submitted to the Air Pollution Control Program, Enforcement Section, within thirty days prior to the proposed test date so that the Air Pollution Control Program, Enforcement Section, may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Staff Director prior to conducting the required emission testing.
- B. Two copies of a written report of the performance test results shall be submitted to the Staff Director within thirty days of completion of any required testing, unless an extension is requested and approved by the Staff Director. The extension must be submitted in writing at least ten days prior to the thirty day deadline. The report must include legible copies of the raw data sheets, analytical instrument laboratory data and complete sample calculations from the required U.S. EPA Method for at least one sample run.
- C. The test report is to fully account for all operational and emission parameters addressed both in the construction permit conditions as well as in any other applicable state or federal rules or regulations.

### 12. Startup, Shutdown, and Malfunction Requirement

- A. Ford Motor Company Kansas City Assembly Plant shall develop and implement an operation and maintenance plan to minimize the instances of excess emissions during start-up, shutdown and malfunction. The operation and maintenance plan shall detail procedures for maintaining,

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

repairing and operating the various sources and their controls during all periods of operation, including start-up, shutdown and malfunction. The operation and maintenance plan shall also comply with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown and Malfunction Conditions*.

#### 13. Reopening of the Construction Permit

- A. The permitting authority may reopen this construction permit to accomplish the following actions:
- 1) Revise Special Condition 2 to reflect an increase in the PAL as outlined in Special Condition 18.
  - 2) Reduce the PAL to reflect newly applicable Federal and/or State requirements with compliance dates after the issuance of this construction permit.
  - 3) Reduce the PAL if the permitting authority determines that a reduction is necessary to avoid causing or contributing to a National Ambient Air Quality Standard or Prevention of Significant Deterioration increment violation, or to an adverse impact on air quality in a Class I area.
- B. All reopenings that increase the PAL level are required to be placed on public notice for at least a thirty day period for submittal of public comment.

#### 14. PAL Effective Period

- A. The PAL in Special Condition 2 will be effective for ten years. The PAL term commences on the date of issuance of this construction permit.

#### 15. Permit Application Submission Requirements

- A. Between six and eighteen months prior to the expiration of the PAL in Special Condition 2, Ford Motor Company Kansas City Assembly Plant shall submit a complete application for the renewal or expiration of the PAL in Special Condition 2. For PAL renewal, Ford Motor Company Kansas City Assembly Plant will be required to comply with Special Condition 16. For PAL expiration, Ford Motor Company Kansas City Assembly Plant will be required to comply with Special Condition 17.
- B. Once a complete application according to Special Condition 15.A. is received by the permitting authority, the PAL in Special Condition 2 will remain in effect until a revised PAL or a revised permit incorporating allowable limits is issued by the permitting authority.
- C. Failure to submit a complete application according to Special Condition 15.A. to the permitting authority at least six months prior to the expiration

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## SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

of the PAL is a violation of this construction permit and will result in the termination of the PAL on the date of expiration. At the time of termination, Ford Motor Company Kansas City Assembly Plant will be required to comply with Special Condition 17.

### 16. PAL Renewal Requirements

- A. A complete application shall consist of written documentation and/or calculations for the following items:
  - 1) A proposed PAL level;
  - 2) A list of all emissions units with applicable Federal or State requirements;
  - 3) The potential emissions of all current equipment at the installation;
  - 4) Identification of the baseline period;
  - 5) Baseline actual emissions; and
  - 6) A compliance plan for the proposed PAL.
- B. The permitting authority will have the final authority to set the new plantwide emissions limitation based on the following guidelines:
  - 1) If the baseline actual emissions at the time of renewal are equal to or greater than eighty percent of the PAL, the PAL may be renewed at the same level.
  - 2) The PAL may not be set at a level that is greater than the potential to emit of the entire installation.
  - 3) The PAL shall be adjusted to account for any applicable State or Federal requirement with a compliance date that occurs during the effective period of this PAL.
  - 4) A PAL level higher than the current PAL level cannot be approved unless otherwise approved through Special Condition 18.
- C. Any request to renew the PAL level is required to be placed on public notice for at least a thirty day period for submittal of public comment.

### 17. Expiration of the PAL

- A. If Ford Motor Company Kansas City Assembly Plant does not wish to renew the PAL of this construction permit, Ford Motor Company Kansas City Assembly Plant shall apply for and obtain a construction permit for each emissions unit (or each group of emissions units) that existed under the PAL.
- B. A complete application shall consist of a proposed allowable emission limitation for each emissions unit (or each group of emissions units) by distributing the PAL allowable emissions for the installation among each of the emissions units that existed under the PAL. If the PAL had not yet

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

been adjusted for an applicable requirement that became effective during the PAL effective period, such distribution shall be made as if the PAL had been adjusted.

- C. The PAL in Special Condition 2 will remain in effect until a revised construction permit is issued by the permitting authority.
  - D. Any physical change or change in the method of operation at the installation that meets the definition of major modification will be subject to major construction permitting requirements.
  - E. Ford Motor Company Kansas City Assembly Plant shall continue to comply with any State or Federal applicable requirements that may have applied either during the PAL effective period or prior to the PAL effective period except for the emissions limitations that are superseded in Special Condition 1.
18. Increase of the PAL during the Effective Period
- A. If Ford Motor Company Kansas City Assembly Plant wishes to alter Special Condition 2 of this construction permit to allow the installation to emit more than 2,363 tons per year of VOC, Ford Motor Company Kansas City Assembly Plant shall submit a complete application to request an increase in the PAL meeting all the requirements for a major modification.
  - B. A complete application shall consist of written documentation and/or calculations to accomplish the following items:
    - 1) Identify the emissions units contributing to the increase in emissions so as to cause Ford Motor Company Kansas City Assembly Plant's emissions to equal or exceed the PAL in Special Condition 2.
    - 2) Determine the Best Available Control Technology (BACT) equivalent controls for each emission unit using current technology.
    - 3) Demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions units exceeds the PAL.
    - 4) Comply with the provisions of a current BACT analysis for all emissions unit(s) identified in Special Condition 18.B(1) in accordance with the requirements of 10 CSR 10-6.060 section (8) regardless of the magnitude of the emissions increase resulting

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

from them.

- C. The revised PAL shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit VOC.
  - D. The revised PAL level shall be placed on public notice for at least a thirty day period for submittal of public comment.
19. Requirements for the Early Termination of the PAL
- A. If Ford Motor Company Kansas City Assembly Plant wishes to terminate the PAL in Special Condition 2 of this construction permit, Ford Motor Company Kansas City Assembly Plant will be required to comply with the provisions of State Rule 10 CSR 10-6.060.
  - B. Activities that are subject to Special Condition 19.A. are any physical and/or operational changes performed after issuance of this construction permit and in accordance with this construction permit.
  - C. Upon termination of the PAL, this construction permit will be void and all previously issued construction permits cited in Special Condition 1 will be reinstated.
  - D. The new construction permit will include a BACT analysis utilizing current technologies, a netting analysis performed by the installation and any other requirements that the permitting authority deems necessary pursuant to 10 CSR 10-6.060 section (8). The results of the BACT and netting analyses shall be submitted to the permitting authority for review and approval.
  - E. If Ford Motor Company Kansas City Assembly Plant requests termination of the PAL during the effective period, the PAL in Special Condition 2. will remain in effect until a valid construction permit is issued by the permitting authority pursuant to 10 CSR 10-6.060.
20. Records Retention Requirement
- A. Ford Motor Company Kansas City Assembly Plant shall maintain all records required by this construction permit for not less than ten years unless otherwise specified in a special condition.
  - B. Ford Motor Company Kansas City Assembly Plant shall make these records available immediately to any Missouri Department of Natural Resources' personnel upon request.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

**21. Reporting Requirement**

- A. Ford Motor Company Kansas City Assembly Plant shall submit a semi-annual emissions report to the permitting authority within 30 days after the end of each reporting period.
- B. The reporting periods are January 1, June 30, and July 1 – December. The report shall contain the following information:
  - 1) Identification of owner and operator and the permit number;
  - 2) Total annual emissions in tons per year based on a 12-month rolling total for each month in the reporting period;
  - 3) A summary of all data relied upon, including but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual VOC emissions;
  - 4) A list of any emissions units modified or added to the installation during the preceding six-month period;
  - 5) The number, duration, and cause of any deviations or monitoring malfunctions, and any corrective action taken;
  - 6) A notification of shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of VOC;
  - 7) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.
- C. Ford Motor Company Kansas City Assembly Plant shall submit reports to the permitting authority within ten days of any deviations or exceedance of permitting requirements. The report shall contain the following information:
  - 1) The identification of owner and operator and the permit number;
  - 2) The permit requirement that experienced the deviation or that was exceeded;
  - 3) Emissions resulting from the deviation or the exceedance; and
  - 4) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.

**22. Quality Assurance/Quality Control Plan**

- A. Ford Motor Company Kansas City Assembly Plant shall maintain an operation and maintenance plan on site at all times. A table of contents of the plan shall be submitted to the permitting authority within sixty days of

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- the issuance of this construction permit and updated within 60 days of receipt of the performance test reports required of Special Condition 11. The plan shall be a detailed, specific to the Kansas City Assembly Plant and include the following information:
- B. A preventative maintenance program for avoidance of excess emissions which shall include all maintenance activities, with inspection schedule, repair actions, and replacements inventory.
  - C. A range of operating conditions and outlet variables for normal operation.
  - D. A summary of operating conditions and outlet variables for all control equipment that will be monitored for malfunction or breakdown and a description of the method of detecting and informing responsible personnel of any malfunction or breakdowns, including alarm systems, lights and other indicators.
  - E. A description of the generic corrective procedures that will be taken in the event of a malfunction or breakdown in order to restore compliance with the applicable emission limitations and permit conditions (e.g. reducing of production rate).
23. Emission Limitation for Non-VOC pollutants
- A. Ford Motor Company Kansas City Assembly Plant shall maintain documentation of the summation of the potential emissions of all criteria air pollutants except VOC from completed and proposed pre-approved changes. Attachment D, or equivalent forms approved by the permitting authority shall be used for this purpose.
  - B. If the records from Special Condition 23.A. indicate that the summation of potential emissions of any criteria air pollutant exceeds its respective de minimis level as indicated in Special Condition 23.B.(1), Ford Motor Company Kansas City Assembly Plant shall comply with the provisions of Special Condition 23.B.(1)-(3) for that particular pollutant.
    - 1) Ford Motor Company Kansas City Assembly Plant shall emit less than the following amounts for each listed criteria air pollutant in any consecutive 12 month period from all equipment, which has been installed under the authority of pre-approved changes set forth in Special Condition 4.A. and listed in Attachment B,  
*Pre-Approved Changes:*

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| Project No. | 2007-09-052 |

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

| Pollutant   | Limitation |
|---|------------|
| Particulate Matter less than 10 microns in diameter (PM <sub>10</sub> ) | 15.0       |
| Sulfur Oxides (SO <sub>x</sub> )  | 40.0       |
| Nitrogen Oxides (NO <sub>x</sub> )                                      | 40.0       |
| Carbon Monoxide (CO)  | 100.0      |
| Sulfur acid mist  | 7.0        |
| Hydrogen Sulfide  | 10.0       |
| Lead  | 0.6        |

- 2) Ford Motor Company Kansas City Assembly Plant shall track and calculate the monthly emissions of the listed criteria air pollutants in Special Condition 23.B (1) from all equipment listed in Attachment B, *Pre-Approved Changes*. Attachment E, or equivalent forms approved by the permitting authority shall be used to demonstrate compliance with Special Conditions 23.B.(1).
  - 3) Ford Motor Company Kansas City Assembly Plant shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 23.B(2) indicate that the source exceeds the limitation of Special Conditions Number 23.B(1).
24. Emission Limitations from Previous Construction Permits
- A. Nitrogen Oxide Limitation from Permit Number 112000-014(A)
    - 1) Ford Motor Company Kansas City Assembly Plant shall emit no more than 31.6 tons of nitrogen oxides (NO<sub>x</sub>) in any 12-month consecutive period from the seven 20 million BTU per hour low NO<sub>x</sub>, direct-fired, natural gas space heaters permitted herein. Ford Motor Company Kansas City Assembly Plant shall maintain a monthly record of the amount of natural gas burned to demonstrate compliance with this limitation.
    - 2) Attachment F or an equivalent form approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 24.A.
  - B. VOC Content Limitation from Permit Number: 1089-001A
    - 1) Ford Motor Company Kansas City Assembly Plant shall maintain an emission limit of 8.5 pounds per gallon applied coating solvents (24-hour basis) for the Commercial Topcoat (truck topcoat) only.
    - 2) Ford Motor Company Kansas City Assembly Plant must keep records for each coating demonstrating the daily volume-weighted average emission rate in pounds of VOC per gallon applied coating solvents for the Commercial Topcoat (truck topcoat) only.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- C. VOC Content Limitation from Permit Number: 0690-016  
(EU0140 - Commercial Sealer)
  - 1) Ford Motor Company Kansas City Assembly Plant must meet an emission limit of 0.16 kilograms VOC per liter of applied coating solids.
  - 2) Ford Motor Company Kansas City Assembly Plant must follow the testing guidelines contained in 60.393 of Supart MM, and use the reference methods and procedures contained in 60.396.
  - 3) Testing must be done within sixty days after reaching maximum production rate, but not later than one hundred eighty days after the initial startup date when production vehicles travel through the oven.
  - 4) (Initial testing has been completed within original condition requirements. Any further testing of this equipment will be covered under Special Conditions 10 and 11 of this PAL permit.)
  
- D. VOC Content Limitation from Permit Number: 0594-034
  - 1) Ford Motor Company Kansas City Assembly Plant shall meet an emission limit of 13.1 pounds of VOC per gallon of applied coating solids from the operation of the passenger topcoat system.
  - 2) Ford Motor Company Kansas City Assembly Plant must keep records for each coating demonstrating the daily volume-weighted average emission rate in pounds of VOC per gallon applied coating solids for the passenger topcoat system.
  
- E. Ford Motor Company Kansas City Assembly Plant shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which the records from Special Condition 24 indicate that the source exceeds the emission limitation of Special Condition 24.
  
- 25. Operational Requirements from Previous Construction Permits
  - A. Stack Identifications from Permit Number: 1089-001A
    - 1) Ford Motor Company Kansas City Assembly Plant shall supply the Air Pollution Control Program blueprints showing rooftop locations of all exhaust stacks for both existing and new stacks.
  
  - B. Each stack must be identified by the associated source operation name and a short code that Ford chooses.
  
  - C. There must be a unique code for all stacks associated with each new process. Ford must physically paint these codes onto the corresponding exhaust stacks on the roof.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- D. The code system Ford uses can be symbols (alpha/numeric), color bars, or another system approved by the personnel.
  - E. This action will allow department personnel to identify which source is not meeting regulatory requirements, if the situation occurs.
  - F. This condition must be met no later than ninety days after start-up. Start-up is when production vehicles begin to travel through the new truck line.
  - G. Fluidized Bed Skid Cleaner Requirements from Permit Number: 042006-012
    - 1) Ford Motor Company Kansas City Assembly Plant shall use the fluidized bed skid cleaner (EP49) exclusively to remove non-chlorinated/non-hazardous coatings from metal parts.
    - 2) Natural gas or propane shall be the only fuels burned in the fluidized bed skid cleaner (EP49).
26. Emergency Equipment Requirements
- A. The operating hours of the emergency generator shall not exceed 500 hours in any consecutive twelve month period. To facilitate the record keeping for this condition, the emergency generator shall be equipped with a non-resettable running time meter.
  - B. Attachment G or an equivalent form shall be used to record the hours of operation. These records shall include the operating hours for that month and the total hours of operation for the previous twelve month period.
  - C. Ford Motor Company Kansas City Assembly Plant shall report to the Air Pollution Control Program's (APCP) Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the end of the month during which the records from Special Condition 26.B. indicate that the source exceeds the Special Condition 26.A.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (8) REVIEW

Project Number: 2007-09-052  
Installation ID Number: 047-0019  
Permit Number:

Ford Motor Company Kansas City Assembly Plant  
8121 U.S. NE Highway 69  
Claycomo, MO 64119

Complete: September 19, 2007  
Reviewed: December 28, 2007

Parent Company:  
Ford Motor Company  
The American Road  
Dearborn, MI 48126

Clay County, S27, T51, R32

REVIEW SUMMARY

- Ford Motor Company Kansas City Assembly Plant has applied for a Plantwide Applicability Limitation (PAL) permit for pre-approved changes at the existing auto assembly plant in Claycomo, Missouri.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. However, HAP emissions may not exceed acceptable ambient air quality concentrations as required by special conditions of this construction permit.
- Subpart MM of the New Source Performance Standards (NSPS), for *Automobile and Light Duty Truck Surface Coating Operations*, applies to the installation.
- The Maximum Achievable Control Technology (MACT) standards, 40 CFR Part 63, Subpart IIII, and National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light Duty Trucks, and Subpart EEEE, Organic Liquids Distribution (Non-Gasoline) applies to the installation.
- A regenerative thermal oxidizer and carbon adsorbers are currently being used to control the VOC emissions from equipment at this installation.
- This review was conducted in accordance with Section (8) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Emissions of VOC for the entire installation are conditioned with a PAL. The remaining criteria pollutants are limited to de minimis for all pre-approved changes.
- This installation is located in Clay County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations

[10 CSR 10-6.020(3)(B), Table 2].

- Ambient air quality modeling was not performed since potential emissions of the PAL permit were not determined. However, screen modeling for HAPs is required as specified in the special conditions of this construction permit.
- Emissions testing is required for the source.
- A Part 70 Operating Permit application amendment is required for this installation within one year of issuance of this construction permit.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Ford Motor Company Kansas City Assembly Plant (Ford Motor Company) owns and operates an existing automobile assembly plant in Claycomo, Missouri. A list of existing equipment and a summary of the existing emission points can be found in Table B. In an attempt to clarify and consolidate previously confusing emission point assignments, Ford Motor Company has proposed new emission point number assignments to the existing emission points. The new assignments are also provided in Table B.

This installation is a major source of SO<sub>x</sub>, NO<sub>x</sub>, HAPs and VOC emissions. A Part 70 Operating permit application was submitted to the Air Pollution Control Program on May 13, 1997 and is currently under Technical Review. The following permits have been issued to Ford Motor Company Kansas City Assembly Plant from the Air Pollution Control Program.

Table 1: Previously Issued Construction Permits

| Permit Number        | Description  |
|----------------------|--|
| 1176-010 through 014 | New processes  |
| 1177-005 through 006 | Storage tanks  |
| 1277-005 through 006 | Steam boilers  |
| 0678-008             | Painting   |
| 0779-014             | Spray booth modifications  |
| 1084-003             | Paint shop modifications   |
| 0386-003             | Truck E-coat modifications   |
| 0187-005             | Eight paint repair booths  |
| 1187-002             | Sealer oven  |
| 1089-001             | Replacement paint shop   |
| 0990-009             | New guidecoat system   |
| 0690-016             | Protective transit coating application equipment   |
| 0590-001             | Commercial sealer bake oven replacement  |
| 1089-001A            | Consent Decree   |
| 0692-016             | Dual pass PVC enclosure and IR gel oven  |
| 0293-003             | Replacement of blackout booth (water base) with an air house   |
| 1193-015             | Automation of passenger car underbody sealer application   |
| 0594-034             | Modification of the tutone/repair system into a main enamel spraybooth and oven system and designation as main enamel No. 2  |
| 0694-020             | Installation of adhesive application station   |
| 0293-003A            | Modification to compliance reporting for blackout booth  |
| 112000-014           | Installation of six (6) low-NO <sub>x</sub> , direct-fired, natural gas space heaters with individual heat input capacities of 20 million british thermal units per hour.                  |
| 082001-022           | Installation of two (2) worker stations for application of glass cleaner and glass primer to vehicle quarter glass, which is subsequently installed onto a vehicle with adhesive by robot. |
| 082001-022A          | Amended the wording of the special conditions to apply only to the two worker stations instead of the whole installation.  |
| 112000-014A          | Installation of seven (7) 20 MMBtu/hr space heaters rather than six (6) space heaters.   |
| 042006-012           | Fluidized bed skid cleaner   |
| 072007-004           | Modification of the Main Enamel Booth (EP-20) by moving paint applicators from fixed positions to robotic arms   |

One purpose of this construction permit is to supercede the special conditions of previously issued construction permits. Ford has 32 construction permits issued to them by the Air Pollution Control Program. Most of the superceded conditions will be rendered unnecessary with the issuance of this permit.

Some conditions are being carried over because they are not affected by the PAL. Specifically, the special conditions of Permit Numbers 112000-014(A) and 042006-012 address non-VOC (i.e. NO<sub>x</sub> and HAP) issues that must continue to be effective. Permit Numbers: 1089-001(A), 0690-016, and 0594-034 contain special conditions that set emission rates and/or requirements that were established by consent decree, BACT or compliance reasons. These conditions are re-instated in this permit for continuing compliance.

All previous permit conditions have been subsumed into the conditions of this construction permit and are, therefore, unnecessary or repetitive in nature. Special Condition 1 was set forth to supercede the special conditions of 16 construction permits. The remaining 16 construction permits that are not mentioned in Special Condition 1 do not have special conditions.

Ford is a global company that continuously works to reduce the environmental footprint of its manufacturing operations worldwide by improving energy efficiency and increasing the use of renewable resources. Ford has reduced its global operational energy use by 27 percent overall (12 percent per vehicle built), CO2 emissions by 31 percent (16 percent per vehicle built), and water use by more than 25 percent (11 percent per vehicle built) since 2000.

These improvements can be attributed to a number of sustainability initiatives that Ford has implemented at manufacturing facilities including the replacement or upgrade of heating, ventilating and cooling systems; improvements in lighting and vehicle painting systems, and water reduction and recycling projects.

In addition, Ford has been recognized by the U.S. Environmental Protection Agency for its energy conservation efforts with the 2006 and 2007 Energy Star Partner of the Year Award, which is the first time an automaker has won in successive years.

## PROJECT DESCRIPTION

Ford Motor Company has applied for a Plantwide Applicability Limitation permit from the Air Pollution Control Program which will limit emissions on VOC from the entire installation. Under the PAL permit, Ford Motor Company will be allowed to construct pre-approved changes at the installation with little advance notice. The PAL permit is expected to lower overall plant emissions and increase manufacturing flexibility.

The pre-approval of certain types of physical and operational changes in the permit is designed, in part, to facilitate the facility's implementation of pollution prevention projects, including potential installation of control devices on previously uncontrolled equipment. This permit is explicitly designed to enable the Kansas City Assembly Plant to accomplish this in a streamlined manner.

This construction permit is based on newly reformed federal regulations that were finalized in December of 2002 and adopted into the Missouri State Rules and Implementation Plan in July of 2007. Due to the novelty of these regulations in Missouri permitting, much of the actual language of the regulations has been used in setting the special conditions needed to demonstrate compliance with the emission limitation of this construction permit (i.e. performance testing, monitoring, record keeping and reporting).

The PAL permit limits plantwide VOC emissions based on historical actual emissions and a reasonable operational margin. With the issuance of this construction permit, the company would be allowed to make modifications to operations without triggering major

or minor construction permitting as long as emissions from the installation remained below the PAL “emissions cap”. A PAL cap is established for existing emissions units with an emissions history greater than 24-months, using the average rate of emissions during any one consecutive 24-month period. This 24-month period must be contained within the 10-year period immediately preceding the application for a PAL.

Once the average is determined, a reasonable operating margin can be added to the average and must be set such that major construction is not triggered. This assures that the environment sees no significant increase in emissions compared to the baseline actual emissions existing before the PAL is established.

In order to give the company flexibility in making changes quickly to their facility that will meet market demands, the permitting authority is granting Ford Motor Company a PAL permit. Based on existing potential emissions, Ford Motor Company is currently considered major for VOC, HAPs, SOx, and NOx, and minor for all other criteria air pollutants. Under this application, Ford Motor Company has requested a PAL for only VOC. To determine the PAL, emissions reported in the Emissions Inventory Questionnaires (EIQs) were examined and a two-year average was calculated over the last 10 years for VOC. Table 2 summarizes these values.

Table 2: Two-year averages of VOC emissions over the last 10 years

| Emission Year | Emission of VOC (tons) | 2-year Average of VOC Emissions (tons) |
|---------------|------------------------|--|
| 2007          | NA                     | NA                                     |
| 2006          | 1524.49                | 1524                                   |
| 2005          | 1722.76                | 1624                                   |
| 2004          | 1903.66                | 1813                                   |
| 2003          | 1926.51                | 1915                                   |
| 2002          | 2321.33                | 2124                                   |
| 2001          | 2326.56                | 2324                                   |
| 2000          | 1626.02                | 1976                                   |
| 1999          | 1744.11                | 1685                                   |
| 1998          | 1908.23                | 1826                                   |
| 1997          | 2359.99                | 2134                                   |

The two years that produced the highest two-year average emissions of VOC were 2001 and 2002 with an average of 2324 tons of VOC per year. To set the emissions cap, a reasonable operating margin for VOC was set just below the significance levels for major source reviews, which is 40 tons per year. Therefore, the total allowable emissions limit set forth in this construction permit is 2363 tons of VOC per year (2324 + 39).

Attachment A, or any form approved by the permitting authority, will be used to demonstrate compliance with the emissions limitation. Attachment A is intended to account for emissions from the entire installation including any equipment added or removed under authority of this construction permit. Minor emission sources, such as space heaters, must also be included in the compliance demonstration even though the equipment may be “exempt” from construction permits.

The method of compliance (e.g. mass balance) must also be indicated on the Attachment. Although Attachment A implies that emissions must be reconciled monthly, Ford Motor Company will be required to account for daily emissions that occur as a result of start-up, shut-down, and/or malfunction of the control device. Accordingly, Ford Motor Company may use monthly inventory data to backcast daily emissions prorated on each day's production rates during such times.

For equipment that is added or removed under authority of this construction permit, Ford Motor Company must keep a record of these additions/removals per Special Condition 4.B. Furthermore, Ford Motor Company must verify any emission factors and control efficiencies applied to emissions from the installation through documentation accompanying the Attachment.

Documentation may include Material Safety Data Sheets specific to the material being used and/or recent stack performance test results. In particular, the documentation should include explicit details on how the emission factor and/or control efficiency was determined. This type of flexibility should allow Ford Motor Company the opportunity to use better emission factors as they become available.

Under the emissions limitation, Ford Motor Company is authorized to perform physical and operational changes stated in the list of pre-approved changes found in Attachment B, *Pre-Approved Changes*. Prior to construction of a pre-approved change, Ford Motor Company is required to send notification of construction to the Air Pollution Control Program. Special Condition 5 outlines the elements required in the notification, including an emissions summary and an impact analysis of the change on other operational factors such as capture efficiency.

The pre-approved changes are reviewed at the time of the change using, where applicable, the Protocol for Determining the Daily Volatile Organic Compound emission Rate of Automobile and Light-Truck Topcoat Operations (EPA-450/3-88-018).

One of the advantages of the pre-approved changes is the opportunity for pollution reduction by allowing Ford Motor Company the flexibility to increase production or add equipment by adding control devices. Currently, Ford Motor Company controls VOC emissions from the Passenger paint shop with the Topcoat Oven Regenerative Thermal Oxidizer. Emissions from the Commercial paint shop are controlled using the Guidecoat Booth, Guidecoat Oven, Topcoat Booth, and Topcoat Oven Regenerative Thermal Oxidizers and the Guidecoat Booth and Topcoat Booth Carbon Adsorbers. Ford Motor Company is considering additional control equipment such as the fluidized bed carbon concentrator followed by a thermal oxidizer for control of VOC emissions.

This construction permit may be amended to include activities that are not identified in the original list of pre-approved modifications if those activities will not increase emissions over the PAL. However, Ford Motor Company may not amend this construction permit to increase the PAL itself for any reason.

To amend the PAL would result in the termination of this construction permit and would require Ford Motor Company to apply for and obtain a new permit under Section (8) regulations per Special Condition 18.

For modifications that are not considered a pre-approved change and increase potential emissions of criteria air pollutants other than VOC and HAP, the installation must submit a construction permit application for evaluation and approval. In order for the installation to obtain any additional construction permits, the emissions must be below de minimis levels for that pollutant to avoid major source review.

In addition, when Ford Motor Company submits notification of a pre-approved change that produces emissions other than VOC, Ford Motor Company is required to include a calculation sheet and a summation of potential emissions of all criteria air pollutants except VOC for the proposed pre-approved changes and all completed pre-approved changes. Proposed pre-approved changes consist of any equipment for which a notification has been received including the equipment proposed in the current notification. A record of the summation must also be kept on site as specified in Special Condition 23.

The purpose of these special conditions is to set forth provisions for recordkeeping for equipment installed under authority of the pre-approved changes with potential emissions greater than de minimis levels for non-VOC pollutants. This is required to ensure these pollutants do not trigger major review for these phased projects. Therefore, once the potential emissions of a non-VOC criteria air pollutant exceeds de minimis levels, Ford Motor Company will be required to maintain a 12-month rolling average of actual emissions below de minimis levels from all completed pre-approved changes for that particular criteria air pollutant.

For example, if Ford Motor Company were to install sources with the following emissions under authority of a pre-approved change (see Table 3), Ford Motor Company would not be required to comply with an emissions limitation for PM<sub>10</sub>, SO<sub>x</sub>, or CO. However, upon installation of the third source, Ford Motor Company would be required to track NO<sub>x</sub> emissions for all three sources and not exceed an annual limitation of 40 tons.

Table 3: Example Applicability Summary for Special Condition 23

| Pollutant        | Source 1 | Source 2 | Source 3 | Summation |
|------------------|----------|----------|----------|-----------|
| PM <sub>10</sub> | 1.0      | 1.3      | 1.0      | 3.3       |
| SO <sub>x</sub>  | 0.1      | 0.1      | 0.1      | 0.3       |
| NO <sub>x</sub>  | 14.0     | 16.6     | 13.1     | 43.7      |
| CO               | 12.0     | 14.0     | 11.0     | 37.0      |

From a timeline perspective, in this example, if source 1 and 2 were installed in 2010 and 2011, respectively, and source 3 were installed in 2013, the limit would not become effective until 2013.

Besides VOC emissions, some materials are anticipated to contain HAP, which are required to meet state requirements as outlined in Special Conditions 7 and 8. Based on the potential emissions of each specific HAP, Ford Motor Company is required to determine the impact of the HAP on the ambient air for each pre-approved change that is not subject to a MACT standard if the potential to emit of the HAP exceeds its SMAL.

To do this, Ford Motor Company must screen using the EPA preferred screening method prior to operation. The modeled screening concentration must then be compared to the acceptable concentrations found in the Missouri document *Draft Acceptable Ambient Levels for Missouri*, which is maintained by the permitting authority. Ford Motor Company must also contact the Program for the most recent update to the document to ensure compliance with the construction permit.

If modeled concentrations are above acceptable concentration levels on any averaging period (i.e. three-hour, eight-hour, 24-hour, and/or annual), Ford Motor Company may not commence operation until Ford Motor Company completes refined modeling to document ambient concentrations are below acceptable concentration levels or applies for and obtains a construction permit limiting the HAP emissions.

Once this construction permit is issued, Ford Motor Company is authorized to construct and operate any pre-approved modification in accordance with the notification system (Special Conditions 5 and 6). Prior to commencement of construction and operation, Ford Motor Company must submit notification to the permitting authority describing all required details of the operational and/or physical changes being performed.

As a part of the notification, Ford Motor Company is required to submit a statement verifying that the physical or operational change will not result in installation emissions that exceed the plantwide limitation.

Construction permits staff believes that the notifications are similar to pre-construction waivers, where the applicant is requesting authority to start construction before issuance of the permit. In this case, if a change is determined to be inconsistent with the pre-approved changes, and the change requires an amendment to the permit, the statement of verification serves as assurance that the change will not affect the limit.

Once received, these notifications will become incorporated into the construction permit, and compliance with the notifications will be enforceable. The plant wide limitation set forth in this construction permit is effective for a period of 10 years from the date of issuance. At least six months prior to, but not earlier than 18 months from, the expiration date of this plantwide limitation, Ford Motor Company must submit a request for either the renewal of or the termination of the PAL per Special Conditions 14 through 19.

Once a request for renewal is received by the permitting authority, the PAL will continue as an enforceable requirement. At that time, the PAL will be re-evaluated to account for newly applicable requirements and/or declining potential emissions. For example, if Ford Motor Company removes equipment from the installation that results in a total

decrease in potential emissions below the current PAL, the renewed PAL must be adjusted downward accordingly. On the other hand, if applicable requirements and potential emissions remain the same, or if the Director deems it appropriate, the PAL may remain at the same level.

However, if Ford Motor Company wishes to allow the PAL to terminate, Ford Motor Company must submit a proposed approach for allocating the plantwide limitation among existing emissions units for review and approval. The allowable emission limitations for each emissions units will be based on a 12-month rolling basis. In addition, once the original PAL expires, Ford Motor Company may not perform activities previously approved under this construction permit and must comply with the permitting requirements found in Sections (5), (6), (7), (8), and (9), as appropriate.

Ford Motor Company may terminate the plantwide limitation through walk away provisions of this construction permit by requesting an increase in the limitation or by simply requesting termination. If Ford Motor Company wishes to walk away from the terms of this construction permit, Ford Motor Company may vacate the permit and return to the requirements of previously issued construction permits. For all construction commenced in the duration of this construction permit, Ford Motor Company is required to apply for and obtain a new permit under Section (8) regulations for each project with potential emissions that exceed the significance threshold(s).

In addition, a complete netting analysis is required for all emissions reductions and increases that occurred over the life of the construction permit.

Once Ford Motor Company requests termination of, expiration of, or an increase in the PAL, Ford Motor Company must submit appropriate applications for revised or replacement permits. During any review by the permitting authority and until a valid construction permit is issued, Ford Motor Company must continue to comply with the plantwide limitation in Special Condition 2 of this construction permit.

## EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies obtained from the most recent edition of the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, shall be used to determine compliance with the plantwide limitation of VOCs unless performance testing data is available and approved by the Air Pollution Control Program. For materials that contain VOCs and for which there is a Material Safety Data Sheet (MSDS), a mass balance approach should be used to determine emissions from the process. The upper limit of any content range stated in the MSDS must be used in the calculations unless approved tests indicate a more appropriate value. Per permitting authority policy, it is assumed that all VOCs and HAPs contained in the material will be emitted into the atmosphere unless an alternative method is approved by the Program. Approval can be requested through the notification process.

Due to the nature of the flexible permit, potential emissions of the application and existing potential emissions were not determined. Existing actual emissions were taken from the 2006 EIQ. The following table provides an emissions summary for this project.

Table 4: Emissions Summary (tons per year)

| Pollutant        | Regulatory De Minimis Levels | Existing Potential Emissions | Existing Actual Emissions (2006 EIQ) | Potential Emissions of the Application | New Installation Conditioned Potential |
|------------------|------------------------------|------------------------------|--------------------------------------|--|--|
| PM <sub>10</sub> | 15.0                         | N/D                          | 69.25                                | N/D                                    | N/A*                                   |
| SO <sub>x</sub>  | 40.0                         | Major                        | 3.72                                 | N/D                                    | N/A*                                   |
| NO <sub>x</sub>  | 40.0                         | Major                        | 75.40                                | N/D                                    | N/A*                                   |
| VOC              | 40.0                         | Major                        | 1524.49                              | N/D                                    | <2,363.0                               |
| CO               | 100.0                        | N/D                          | 63.03                                | N/D                                    | N/A*                                   |
| HAPs             | 10.0/25.0                    | N/D                          | N/A                                  | N/D                                    | N/A*                                   |

N/A = Not Applicable; N/D = Not Determined

\*Not applicable unless the potential to emit of the installed pre-approved changes exceeds de minimis levels (see Special Condition 23)

#### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (8) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. This is a PAL permit for VOC with de minimis limitations on all other criteria air pollutants.

#### APPLICABLE REQUIREMENTS

Ford Motor Company Kansas City Assembly Plant shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

#### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110. The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire is required April 1, for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

## SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS) for Automobile and Light Duty Truck Surface Coating Operations*, 40 CFR Part 60, Subpart MM
- *Control of Emissions From Industrial Surface Coating Operations*, 10 CSR 10-2.230
- *Maximum Achievable Control Technology Regulations, 10 CSR 10-6.075 – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light duty Trucks*, 40 CFR Part 63, Subpart IIII
- *Maximum Achievable Control Technology Regulations, 10 CSR 10-6.075 – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, 40 CFR Part 63, Subpart EEEE
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-3.060

## AMBIENT AIR QUALITY IMPACT ANALYSIS

Ambient air quality modeling is required to determine the ambient impact of HAP from any physical or operational change performed under the pre-approved changes of this construction permit. Currently, the EPA preferred method for screening is Screen 3 modeling.

## STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (8), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

\_\_\_\_\_  
Emily Wilbur  
Environmental Engineer

\_\_\_\_\_  
Date

### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated September 17, 2007, received September 19, 2007, designating Ford Motor Company as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey.

## Attachment A: VOC Compliance Calculations and Worksheet

Ford Motor Company Kansas City Assembly Plant  
Clay County, S27, T51, R32  
Project Number: 2007-09-052  
Installation ID Number: 047-0019  
Permit Number:

The calculation methods for demonstrating compliance with Special Condition 2 (A) are described below. Table A provides an example worksheet that will be used to identify the sources of VOC emissions, the emissions calculations method used, and the monthly emissions (tons). In the event of a discrepancy between any emission calculation methodology listed in Table A and those in the Auto Protocol or Auto MACT requirements, the Auto Protocol and/or Auto MACT methodology, combined with any EPA or Air Pollution Control Program policies implementing the Auto Protocol and/or Auto MACT mandated requirements, shall take precedence.

### **Recordkeeping – Material Balance**

On each day of operation, the Permittee shall record and maintain records of the total quantity of all materials used containing VOC at the facility. The Permittee may request an extension of the record completion date by submitting the request in writing to the Staff Director. The request must be received at least ten days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the Permittee shall calculate and record the following:

1. The total usage of VOC containing materials for the previous calendar month using the daily VOC usage records. The record shall also include the VOC content of each material as determined by (1) Material Safety Data Sheet, (2) laboratory test data or (3) product specification information, which ever is most representative for each material used; the record shall indicate the source of VOC content for each material used. Other alternative methods approved by the Director may be used. The Director reserves the right to require the Permittee to determine the VOC contents of any material according to EPA reference methods. The amount of VOC used for each month shall be determined by multiplying the amount of VOC containing materials used by the VOC content of each material.
2. The VOC emissions for each emissions unit and the total facility for the previous month. VOC emissions shall be determined from the total VOC used for each emissions unit multiplied by one minus the capture efficiency for each emissions unit multiplied by the control efficiency of the control device used, as represented in the following equation:

$$VOC\ emissions = VOC\ used\ (1 - capture\ efficiency\ x\ control\ efficiency)$$

Where:

- VOC emissions are expressed as pounds (or tons)
- VOC used is expressed as pounds (or tons)
- Capture efficiency is expressed as a fraction (i.e., percent capture divided by 100)
- Control efficiency is expressed as a fraction (i.e., percent capture divided by 100)

Total facility VOC emissions shall be calculated by summing the VOC emissions from each emissions unit.

3. The twelve month rolling sum VOC emission for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with Special Condition 2(A).

VOC emissions shall be recorded and maintained in a written or electronic form at the facility for a period of five years.

### **Recordkeeping – Emission Factor or Emission Model Calculations**

On each day of operation, the Permittee shall record and maintain records of the total quantity of materials used or hours of operation for each VOC emissions unit. The Permittee may request an extension of the record completion date by submitting the request in writing to the Staff Director. The request must be received at least ten days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the Permittee shall calculate and record the following:

1. The total usage of VOC containing materials or hours of operation for the previous calendar month using the daily production records. The record shall indicate the emission factor used to demonstrate compliance with Special Condition 2(A). Emission factors must be obtained from the most recent edition of AP-42, *Compilation of Air Pollutant Emission Factors*, the most recent stack test report, a mass balance approach (described above), and/or by a method approved by the Air Pollution Control Program. Documentation sufficient to support the emission factors must accompany Attachment A required by Special Condition 2(B).
2. The VOC emissions for each emissions unit and the total facility for the previous month. VOC emissions shall be determined by multiplying the quantity of materials used or hours of operation by an emissions factor, as represented in the following equation:

$$VOC\ emissions = Materials\ Used\ or\ Hours\ of\ Operation \times Emission\ Factor$$

Total facility VOC emissions shall be calculated by summing the VOC emissions from each emissions unit.

3. The twelve month rolling sum VOC emission for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with Special Condition 2(A).

VOC emissions shall be recorded and maintained in a written or electronic form at the facility for a period of five year

Attachment B: Pre-Approved Changes

Ford Motor Company Kansas City Assembly Plant

Clay County, S27, T51, R32

Project Number: 2007-09-052

Installation ID Number: 047-0019

Permit Number:

| PRE-APPROVED CHANGE |     |  | REGULATED SUBSTANCES  | APPLICABLE STANDARDS        |                                      |   |
|---------------------|-----|--|---|-----------------------------|--------------------------------------|---|
|                     |     |  |   | FEDERAL                     | STATE OF MISSOURI                    |   |
| (1)<br>Install      | (a) | EU0010<br>Passenger Body Shop            | (1) welding and/or grinding equipment                           | PM                          |                                      | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
|                     |     |  | (2) sealer application equipment                                | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
|                     | (b) | EU0020<br>Passenger Electrocoat (E-Coat) | (1)( E-Coat) oven burners using natural gas and/or propane      | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |  | (2) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     | (c) | EU0030<br>Passenger Sealer               | (1) applicators   | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|                     |     |  | (2) applicator automation                                       | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|                     |     |  | (3) sealer oven using natural gas and/or propane                | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |  | (4) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230, 10 CSR 10-3.060 [Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]  |
|                     | (d) | Passenger PVC Enclosure                  | (1) lower body side PVC application equipment                   | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |  | (2) PVC oven using natural gas and/or propane                   | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |

| PRE-APPROVED CHANGE |                                  |   | REGULATED SUBSTANCES  | APPLICABLE STANDARDS                 |   |  |
|---------------------|----------------------------------|---|---|--------------------------------------|---|--|
|                     |                                  |   |   | FEDERAL                              | STATE OF MISSOURI   |  |
| (e)                 | EU0050<br>Passenger<br>Guidecoat | (3) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO                                     | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     |                                  | (1) new applicators or automation equipment                     | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |  |
|                     |                                  | (2) guidecoat booth   | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |  |
|                     |                                  | (3) guidecoat oven burners using natural gas and/or propane     | PM10, SOx, NOx CO   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     |                                  | (4) purge solvent recovery equipment                            | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM |   |  |
|                     |                                  | (5) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO                                     | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     | (f)                              | EU0060<br>Passenger<br>Topcoat                                  | (1) new applicators or automation equipment                     | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|                     |                                  |   | (2) one or two topcoat booths                                   | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|                     |                                  |   | (3) topcoat oven burners using natural gas and/or propane       | PM10, SOx, NOx CO                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]<br>10 CSR 10-6.260 [Restriction of Emission of Sulfur Compounds] |
|                     |                                  |   | (4) purge solvent recovery equipment                            | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  |  |
|                     |                                  |   | (5) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO          | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]  |

| PRE-APPROVED CHANGE |   |   | REGULATED SUBSTANCES              | APPLICABLE STANDARDS                          |   |
|---------------------|---|---|-----------------------------------|---|---|
|                     |   |   |                                   | FEDERAL                                       | STATE OF MISSOURI   |
| (g)                 | EU0070<br>Passenger Wax                   | (1) applicators                                   | VOC, HAP                          | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |   | (2) applicator automation                         | VOC, HAP                          | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
| (h)                 | EU0080<br>Passenger Blackout              | (1) applicators                                   | VOC, HAP                          | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |   | (2) applicator automation                         | VOC, HAP                          | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
| (i)                 | EU0090<br>Passenger Final Repair          | (1) new applicators                               | VOC, HAP                          | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |   | (2) applicator automation                         | VOC, HAP                          | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |   | (3) oven burners using natural gas and/or propane | PM10, SOx, NOx<br>CO              | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (j)                 | EU0100<br>Passenger Glass Install         | applicator automation                             | VOC, HAP                          | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |   | (1) welding and/or grinding equipment             | PM                                |   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
| (k)                 | EU0120<br>Commercial Body Shop            | (2) sealer application equipment                  | VOC, HAP                          | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
| (l)                 | EU0130<br>Commercial Electrocoat (E-Coat) | (1) (E-Coat) oven burners                         | PM10, SOx, NOx<br>CO              | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |   | (2) emission control equipment                    | VOC, HAP,<br>PM10, SOx, NOx<br>CO | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |

| PRE-APPROVED CHANGE |                                   |   | REGULATED SUBSTANCES        | APPLICABLE STANDARDS                |   |
|---------------------|-----------------------------------|---|-----------------------------|-------------------------------------|---|
|                     |                                   |   |                             | FEDERAL                             | STATE OF MISSOURI   |
| (m)                 | EU0140<br>Commercial<br>Sealer    | (1) applicators   | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|                     |                                   | (2) applicator automation                                       | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|                     |                                   | (3) sealer oven   | PM10, SOx, NOx CO           | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |                                   | (4) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (n)                 | EU0150<br>Commercial<br>Guidecoat | (1) new applicators or automation equipment                     | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (2) guidecoat booth   | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (3) guidecoat Oven Burners using natural gas and/or propane     | PM10, SOx, NOx CO           | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |                                   | (4) purge solvent recovery equipment                            | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM |   |
|                     |                                   | (5) emission control equipment                                  | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (o)                 | EU0160<br>Commercial<br>Topcoat   | (1) new applicators or automation equipment                     | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (2) one or both topcoat booths                                  | VOC, HAP                    | 40 CFR 63 Sub III, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |

| PRE-APPROVED CHANGE |                                |  | REGULATED SUBSTANCES  | APPLICABLE STANDARDS                 |   |   |
|---------------------|--------------------------------|--|---|--------------------------------------|---|---|
|                     |                                |  |   | FEDERAL                              | STATE OF MISSOURI   |   |
|                     |                                |  | (3) topcoat oven burners using natural gas and/or propane       | PM10, SOx, NOx<br>CO                 | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |                                |  | (4) purge solvent recovery equipment                            | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  |   |
|                     |                                |  | (5) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx<br>CO       | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (p)                 | EU0170 Commercial Blackout     | (1) applicators  | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]            |   |
|                     |                                | (2) applicator automation                                    | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]            |   |
| (q)                 | EU0180 Commercial Final Repair | (1) applicators  | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]            |   |
|                     |                                | (2) applicator automation                                    | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]            |   |
|                     |                                | (3) oven burners using natural gas and/or propane            | PM10, SOx, NOx<br>CO  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |   |
| (r)                 | EU0230 E-Lab Boiler            | natural gas fired boiler with propane and/or fuel oil backup | PM10, SOx, NOx<br>CO  |                                      | 10 CSR 10-6.260 [Restriction of Emission of Sulfur Compounds], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |   |
| (s)                 | EU0240 Fitness Room Boiler     | natural gas fired boiler with propane and/or fuel oil backup | PM10, SOx, NOx<br>CO  |                                      | 10 CSR 10-6.260 [Restriction of Emission of Sulfur Compounds], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |   |
| (t)                 | EU0250 Solvent Cold Cleaners   | solvent cold cleaner   | VOC, HAP  |                                      | 10 CSR 10-2.210 [Control of Emissions From Solvent Metal Cleaning]  |   |
| (u)                 | EU0270 Scuff Booths (5)        | scuff booths using natural gas and/or propane                | PM10, SOx, NOx<br>CO  |                                      | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |   |
| (v)                 | Passenger Scrap Paint Tank     | tank and piping.   | VOC, HAP  | 40 CFR 63 Sub IIII                   |   |   |
| (w)                 | Passenger Spent Solvent Tank   | tank and piping.   | VOC, HAP  | 40 CFR 63 Sub IIII                   |   |   |

| PRE-APPROVED CHANGE |                               |  | REGULATED SUBSTANCES | APPLICABLE STANDARDS |  |
|---------------------|-------------------------------|--|----------------------|----------------------|--|
|                     |                               |  |                      | FEDERAL              | STATE OF MISSOURI  |
| (x)                 | Passenger Phosphate Boiler    | boiler using natural gas and/or propane                  | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (y)                 | Passenger Fluid Fill          | dispensing equipment                                     | VOC, HAP             |                      |  |
| (z)                 | Passenger Paint Mix Room      | mix tanks and circulation equipment                      | VOC, HAP             | 40 CFR 63 Sub IIII   |  |
|                     |                               | mix tanks and circulation equipment                      | VOC, HAP             | 40 CFR 63 Sub IIII   |  |
| (aa)                | Commercial Scrap Paint Tank   | tank and piping.   | VOC, HAP             | 40 CFR 63 Sub IIII   |  |
| (bb)                | Commercial Spent Solvent Tank | tank and piping.   | VOC, HAP             | 40 CFR 63 Sub IIII   |  |
| (cc)                | Commercial Phosphate Boiler   | boiler using natural gas and/or propane                  | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (dd)                | Commercial Fluid Fill         | dispensing equipment                                     | VOC, HAP             |                      |  |
| (ee)                | Commercial Paint Mix Room     | mix tanks and circulation equipment                      | VOC, HAP             | 40 CFR 63 Sub IIII   |  |
|                     |                               | mix tanks and circulation equipment                      | VOC, HAP             | 40 CFR 63 Sub IIII   |  |
| (ff)                | Petroleum Tanks (3)           | tank and piping.   | VOC, HAP             |                      |  |
| (gg)                | Waste Oil AST                 | tank and piping.   | VOC, HAP             |                      |  |
| (hh)                | Wastewater Treatment Plant    | WWTP equipment   |                      |                      |  |
| (ii)                | Product Storage Tanks         | tank and piping.   | VOC, HAP             |                      |  |
| (jj)                | Space Heaters                 | space heaters using natural gas and/or propane           | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (kk)                | Boilers                       | boilers using natural gas and/or propane                 | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (ll)                | Air Supply Houses             | booth air supply houses using natural gas and/or propane | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (mm)                | Hot Water Heaters             | hot water heaters using natural gas and/or propane       | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (nn)                | Sprayable Bedliner            | sprayable bedliner booth and application equipment       | VOC, HAP, PM         | 40 CFR 63 Sub IIII   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]                                |

| PRE-APPROVED CHANGE |                                      |   | REGULATED SUBSTANCES            | APPLICABLE STANDARDS |  |
|---------------------|--------------------------------------|---|---------------------------------|----------------------|--|
|                     |                                      |   |                                 | FEDERAL              | STATE OF MISSOURI  |
| (oo)                | Glass Roof/Panel Installation        | glass installation equipment for glass roof or other glass panel  | VOC, HAP                        | 40 CFR 63 Sub IIII   |  |
| (pp)                | UV Cure Coating Application/<br>Oven | UV Cure coatings, application equipment, and curing equipment     | VOC, HAP, PM                    | 40 CFR 63 Sub IIII   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
| (qq)                | Body Shop                            | new body shop for future vehicle using natural gas and/or propane | VOC, HAP, PM, PM10, SOx, NOx CO | 40 CFR 63 Sub IIII   | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]   |
| (rr)                | Stamping Operations                  | new stamping operations using natural gas and/or propane          | VOC, HAP, PM, PM10, SOx, NOx CO |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]   |

|               |     |  |  |                             |                                      |   |
|---------------|-----|--|--|-----------------------------|--------------------------------------|---|
| (2)<br>Modify | (a) | EU0010<br>Passenger Body Shop            | (1) welding and/or grinding equipment                                  | PM                          |                                      | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
|               |     |  | (2) sealer application equipment                                       | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
|               | (b) | EU0020<br>Passenger Electrocoat (E-Coat) | (1) (E-Coat) oven (e.g., extend oven) using natural gas and/or propane | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|               |     |  | (2) (E-Coat) dip tank  | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|               |     |  | (3) (E-Coat) oven burners using natural gas and/or propane             | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|               |     |  | (4) emission control equipment using natural gas and/or propane        | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|               | (c) | EU0030<br>Passenger Sealer               | (1) applicators  | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|               |     |  | (2) applicator automation  | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]   |
|               |     |  | (3) sealer oven using natural gas and/or propane                       | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |

| PRE-APPROVED CHANGE |                                   |   | REGULATED SUBSTANCES                             | APPLICABLE STANDARDS                 |   |  |
|---------------------|-----------------------------------|---|--|--------------------------------------|---|--|
|                     |                                   |   |  | FEDERAL                              | STATE OF MISSOURI   |  |
| (d)                 | EU0040<br>Passenger PVC Enclosure | (4) emission control equipment using natural gas and/or propane         | VOC, HAP, PM10, SOx, NOx CO                      | 40 CFR 63 Sub IIII                   | 10 CSR 10-2.230, 10 CSR 10-3.060 [Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]  |  |
|                     |                                   | (1) lower body side PVC application equipment                           | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |  |
|                     |                                   | (2) PVC oven using natural gas and/or propane                           | PM10, SOx, NOx CO                                | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     |                                   | (3) emission control equipment using natural gas and/or propane         | VOC, HAP, PM10, SOx, NOx CO                      | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     | (e)                               | EU0050<br>Passenger Guidecoat   | (1) existing applicators or automation equipment | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                     |                                   |   | (2) applicators or automation equipment          | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                     |                                   |   | (3) guidecoat booth back sections                | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                     |                                   |   | (4) guidecoat booth                              | VOC, HAP                             | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM  | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                     |                                   | (5) guidecoat oven (e.g., extend oven) using natural gas and/or propane | PM10, SOx, NOx CO                                | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     |                                   | (6) guidecoat oven burners using natural gas and/or propane             | PM10, SOx, NOx CO                                | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |  |
|                     |                                   | (7) purge solvent recovery equipment                                    | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM |   |  |

| PRE-APPROVED CHANGE  |                                |  | REGULATED SUBSTANCES  | APPLICABLE STANDARDS                 |   |
|--|--------------------------------|--|---|--------------------------------------|---|
|  |                                |  |   | FEDERAL                              | STATE OF MISSOURI   |
| (f)  | EU0060<br>Passenger<br>Topcoat | (8) emission control equipment using natural gas and/or propane        | VOC, HAP, PM10, SOx, NOx CO   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|  |                                | (1) existing applicators or automation equipment                       | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|  |                                | (2) applicators or automation equipment                                | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|  |                                | (3) topcoat booth back sections  | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|  |                                | (4) one or both topcoat booths   | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|  |                                | (5) topcoat ovens (e.g., extend oven) using natural gas and/or propane | PM10, SOx, NOx CO   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|  |                                | (6) topcoat oven burners using natural gas and/or propane              | PM10, SOx, NOx CO   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|  |                                | (7) purge solvent recovery equipment                                   | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM |   |
|  |                                | (8) spot repair operation.   | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|  |                                | (9) guidecoat system   | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
| (10) emission control equipment using natural gas and/or propane | VOC, HAP, PM10, SOx, NOx CO    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM                                   | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |                                      |   |

| PRE-APPROVED CHANGE |                                   |   | REGULATED SUBSTANCES | APPLICABLE STANDARDS                          |   |
|---------------------|-----------------------------------|---|----------------------|---|---|
|                     |                                   |   |                      | FEDERAL                                       | STATE OF MISSOURI   |
| (g)                 | EU0070<br>Passenger Wax           | (1) applicators                                   | VOC, HAP             | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (2) applicator automation                         | VOC, HAP             | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
| (h)                 | EU0080<br>Passenger Blackout      | (1) applicators                                   | VOC, HAP             | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (2) applicator automation                         | VOC, HAP             | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
| (i)                 | EU0090<br>Passenger Final Repair  | (1) applicators                                   | VOC, HAP             | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (2) applicator automation                         | VOC, HAP             | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (3) oven burners using natural gas and/or propane | PM10, SOx, NOx<br>CO | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (j)                 | EU0100<br>Passenger Glass Install | (1) applicators                                   | VOC, HAP             | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |                                   | (2) applicator automation                         | VOC, HAP             | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
| (k)                 | EU0120<br>Commercial Body Shop    | (1) welding and/or grinding equipment             | PM                   |   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
|                     |                                   | (2) existing welding or grinding equipment        | PM                   |   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
|                     |                                   | (3) sealer application equipment                  | VOC, HAP             | 40 CFR 63<br>Sub IIII                         | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |

| PRE-APPROVED CHANGE |     |  | REGULATED SUBSTANCES   | APPLICABLE STANDARDS        |                                      |   |
|---------------------|-----|--|--|-----------------------------|--------------------------------------|---|
|                     |     |  |  | FEDERAL                     | STATE OF MISSOURI                    |   |
|                     | (l) | EU0130<br>Commercial<br>Electrocoat (E-Coat) | (4) existing sealer application equipment                              | VOC, HAP                    | 40 CFR 63 Sub IIII                   | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |  | (1) (E-Coat) oven (e.g., extend oven) using natural gas and/or propane | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |  | (2) (E-Coat) dip Tank  | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |  | (3) (E-Coat) oven burners using natural gas and/or propane             | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |  | (4) emission control equipment using natural gas and/or propane        | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     | (m) | EU0140<br>Commercial<br>Sealer               | (1) applicators  | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |  | (2) applicator automation  | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |  | (3) sealer oven using natural gas and/or propane                       | PM10, SOx, NOx CO           | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |  | (4) emission control equipment using natural gas and/or propane        | VOC, HAP, PM10, SOx, NOx CO | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     | (n) | EU0150<br>Commercial<br>Guidecoat            | (1) existing applicators or automation equipment                       | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |  | (2) applicators or automation equipment                                | VOC, HAP                    | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |

| PRE-APPROVED CHANGE             |          | REGULATED SUBSTANCES  | APPLICABLE STANDARDS   |  |   |                                      |  |
|---------------------------------|----------|---|--|--|---|--------------------------------------|--|
|                                 |          |   | FEDERAL  | STATE OF MISSOURI                                |   |                                      |  |
|                                 |          | (3) guidecoat booth back sections                                       | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |                                      |  |
|                                 |          | (4) guidecoat booth   | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |                                      |  |
|                                 |          | (5) guidecoat oven (e.g., extend oven) using natural gas and/or propane | PM10, SOx, NOx CO  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |                                      |  |
|                                 |          | (6) guidecoat oven burners using natural gas and/or propane             | PM10, SOx, NOx CO  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |                                      |  |
|                                 |          | (7) purge solvent recovery equipment                                    | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             |   |                                      |  |
|                                 |          | (8) topcoat system  | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |                                      |  |
|                                 |          | (9) emission control equipment using natural gas and/or propane         | VOC, HAP, PM10, SOx, NOx CO  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |                                      |  |
|                                 |          | (o)   | EU0160 Commercial Topcoat  | (1) existing applicators or automation equipment | VOC, HAP  | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                                 |          | (2) applicators or automation equipment                                 | VOC, HAP   | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM             | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |                                      |  |
| (3) topcoat booth back sections | VOC, HAP | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM                                    | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |  |   |                                      |  |
| (4) one or both topcoat booths  | VOC, HAP | 40 CFR 63 Sub IIII, 40 CFR 60 Sub MM                                    | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |  |   |                                      |  |

| PRE-APPROVED CHANGE |     |                                       | REGULATED SUBSTANCES   | APPLICABLE STANDARDS           |   |   |
|---------------------|-----|---------------------------------------|--|--------------------------------|---|---|
|                     |     |                                       |  | FEDERAL                        | STATE OF MISSOURI                             |   |
|                     |     |                                       | (5) topcoat ovens (e.g., extend oven) using natural gas and/or propane | PM10, SOx, NOx<br>CO           | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |                                       | (6) topcoat oven burners using natural gas and/or propane              | PM10, SOx, NOx<br>CO           | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     |     |                                       | (7) purge solvent recovery equipment                                   | VOC, HAP                       | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM |   |
|                     |     |                                       | (8) spot repair operation.   | VOC, HAP                       | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |                                       | (9) emission control equipment using natural gas and/or propane        | VOC, HAP, PM10,<br>SOx, NOx CO | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     | (p) | EU0170<br>Commercial<br>Blackout      | (1) applicators  | VOC, HAP                       | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |                                       | (2) applicator automation  | VOC, HAP                       | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     | (q) | EU0180<br>Commercial<br>Final Repair  | (1) applicators  | VOC, HAP                       | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |                                       | (2) applicator automation  | VOC, HAP                       | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations]                                |
|                     |     |                                       | (3) oven burners using natural gas and/or propane                      | PM10, SOx, NOx<br>CO           | 40 CFR 63<br>Sub IIII, 40<br>CFR 60 Sub<br>MM | 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
|                     | (r) | EU0190<br>Commercial<br>Glass Install | (1) applicators  | VOC, HAP                       | 40 CFR 63<br>Sub IIII                         |   |
|                     |     |                                       | (2) applicator automation  | VOC, HAP                       | 40 CFR 63<br>Sub IIII                         |   |

| PRE-APPROVED CHANGE |  |  | REGULATED SUBSTANCES | APPLICABLE STANDARDS |   |
|---------------------|--|--|----------------------|----------------------|---|
|                     |  |  |                      | FEDERAL              | STATE OF MISSOURI   |
| (s)                 | EU0230 E-Lab Boiler                              | natural gas fired boiler with propane and/or fuel oil backup | PM10, SOx, NOx CO    |                      | 10 CSR 10-6.260 [Restriction of Emission of Sulfur Compounds], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (t)                 | EU0240 Fitness Room Boiler                       | natural gas fired boiler with propane and/or fuel oil backup | PM10, SOx, NOx CO    |                      | 10 CSR 10-6.260 [Restriction of Emission of Sulfur Compounds], 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (u)                 | EU0250 Solvent Cold Cleaners                     | solvent cold cleaner   | VOC, HAP             |                      | 10 CSR 10-2.210 [Control of Emissions From Solvent Metal Cleaning]  |
| (v)                 | EU0260 Gasoline UST (3)                          | tank and piping.   | VOC, HAP             |                      | 10 CSR 10-2.330 [Control of Gasoline Reid Vapor Pressure]   |
| (w)                 | EU0270 Scuff Booths (5)                          | scuff booths using natural gas and/or propane                | PM10, SOx, NOx CO    |                      | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes]   |
| (x)                 | EU0290 20,000 Gallon Windshield Washer Fluid UST | tank and piping.   | VOC, HAP             | 40 CFR Sub EEEE      |   |
| (y)                 | Passenger Scrap Paint Tank                       | tank and piping.   | VOC, HAP             | 40 CFR 63 Sub IIII   |   |
| (z)                 | Passenger Spent Solvent Tank                     | tank and piping.   | VOC, HAP             | 40 CFR 63 Sub IIII   |   |
| (aa)                | Passenger Phosphate System                       | conversion to ZrO2 system                                    |                      |                      |   |
| (bb)                | Passenger Phosphate Boiler                       | boiler using natural gas and/or propane                      | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]  |
| (cc)                | Passenger Fluid Fill                             | dispensing equipment   | VOC, HAP             |                      |   |
| (dd)                | Passenger Paint Mix Room                         | mix tanks and circulation equipment                          | VOC, HAP             | 40 CFR 63 Sub IIII   |   |
| (ee)                | Commercial Scrap Paint Tank                      | tank and piping.   | VOC, HAP             | 40 CFR 63 Sub IIII   |   |
| (ff)                | Commercial Spent Solvent Tank                    | tank and piping.   | VOC, HAP             | 40 CFR 63 Sub IIII   |   |
| (gg)                | Commercial Phosphate System                      | conversion to ZrO2 system                                    |                      |                      |   |
| (hh)                | Commercial Phosphate Boiler                      | boiler using natural gas and/or propane                      | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating]  |
| (ii)                | Commercial Fluid Fill                            | dispensing equipment   | VOC, HAP             |                      |   |
| (jj)                | Commercial Paint Mix Room                        | mix tanks and circulation equipment                          | VOC, HAP             | 40 CFR 63 Sub IIII   |   |
|                     |  | mix tanks and circulation equipment                          | VOC, HAP             | 40 CFR 63 Sub IIII   |   |

| PRE-APPROVED CHANGE |                            |  | REGULATED SUBSTANCES | APPLICABLE STANDARDS |  |
|---------------------|----------------------------|--|----------------------|----------------------|--|
|                     |                            |  |                      | FEDERAL              | STATE OF MISSOURI  |
| (kk)                | Petroleum Tanks (3)        | tank and piping.   | VOC, HAP             |                      |  |
| (ll)                | Waste Oil AST              | tank and piping.   | VOC, HAP             |                      |  |
| (mm)                | Wastewater Treatment Plant | WWTP equipment   |                      |                      |  |
| (nn)                | Product Storage Tanks      | tank and piping.   | VOC, HAP             |                      |  |
| (oo)                | Space Heaters              | space heaters using natural gas and/or propane           | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (pp)                | Boilers                    | boilers using natural gas and/or propane                 | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (qq)                | Air Supply Houses          | booth air supply houses using natural gas and/or propane | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |
| (rr)                | Hot Water Heaters          | hot water heaters using natural gas and/or propane       | PM10, SOx, NOx CO    |                      | 10 CSR 10-2.040 [Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating] |

|                             |     |  |          |                    |  |
|-----------------------------|-----|--|----------|--------------------|--|
| (3)<br>Changes<br>Materials | (a) | Use of a new raw material or ingredient in a coating operation | VOC, HAP | 40 CFR 63 Sub IIII | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                             | (b) | Use of a new coating material                                  | VOC, HAP | 40 CFR 63 Sub IIII | 10 CSR 10-6.400 [Restriction of Emission of Particulate Matter From Industrial Processes], 10 CSR 10-2.230 [Control of Emissions From Industrial Surface Coating Operations] |
|                             | (c) | Use of new vehicle fluid                                       | VOC, HAP |                    |  |
|                             | (d) | Use of new cold cleaner solvents                               | VOC      | 40 CFR 63 Sub IIII | 10 CSR 10-2.210 [Control of Emissions from Solvent Metal Cleaning]   |
|                             | (e) | Use of new general solvents                                    | VOC, HAP | 40 CFR 63 Sub IIII | 10 CSR 10-2.215 [Control of Emissions from Solvent Cleanup Operations]   |

Notes:

[1] The terms install, construct, and modify, for purposes of this table, have operational rather than regulatory meaning. For example, in some

| PRE-APPROVED CHANGE | REGULATED SUBSTANCES  | APPLICABLE STANDARDS |                   |
|---------------------|---|----------------------|-------------------|
|                     |   | FEDERAL              | STATE OF MISSOURI |
|                     | cases one or more of the listed installation projects might meet the regulatory definition of a modification rather than construction, according to its applicable regulation.  |                      |                   |
| [2]                 | Means each tank, reservoir, or container used for the storage of volatile organic liquids, not including frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors. |                      |                   |







## Attachment F: NOx Compliance Calculations and Worksheet

Ford Motor Company Kansas City Assembly Plant  
 Clay County, S27, T51, R32  
 Project Number: 2007-09-052  
 Installation ID Number: 047-0019  
 Permit Number:

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
 (Month, Year) (Month, Year)

Copy as needed.

| Column A  | Column B                        | Column C              | Column D            | Column E                 |
|---|---------------------------------|-----------------------|---------------------|--------------------------|
| Emission Point(s)   | Description                     | Amount Fuel Combusted | NOx Emission Factor | (a) NOx Emissions (tons) |
| EU0280  | Seven 20 MMBTU/hr Space Heaters |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
|   |                                 |                       |                     |                          |
| (b) Total NOx Emissions Calculated for this Month in Tons:                      |                                 |                       |                     |                          |
| (c) 12-Month NOx Emissions Total From Previous Month's Attachment F, in Tons:   |                                 |                       |                     |                          |
| (d) Monthly NOx Emissions Total (b) from Previous year's Attachment F, In Tons: |                                 |                       |                     |                          |
| (e) Current 12-month Total of NOx Emissions in Tons : [(b) + (c) - (d)]         |                                 |                       |                     |                          |

- (a) [Column E] = [Column C] x [Column D] x 0.0005.
  - (b) Summation of [Column E] in Tons;
  - (c) 12-Month NOx emissions total (e) from last month's Attachment F, in Tons;
  - (d) Monthly NOx emissions total (b) from previous year's Attachment F, in Tons;
  - (e) Calculate the new 12-month NOx emissions total.
- A 12-Month NOx emissions total (e) of less than 31.6 tons indicates compliance.**

## Attachment G: Emergency Equipment Worksheet

Ford Motor Company Kansas City Assembly Plant  
Clay County, S27, T51, R32  
Project Number: 2007-09-052  
Installation ID Number: 047-0019  
Permit Number:

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
(Month, Year) (Month, Year)

Copy as needed.

| Date<br>(month/year) | Emergency Equipment<br>Identification | Hours of Operation | 12-Month Total * |
|----------------------|---------------------------------------|--------------------|------------------|
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |
|                      |                                       |                    |                  |

\*12-month total is determined by the addition of the current month to the total of the previous 11 months. A number of 500 hours of operation for the emergency generator is considered to be in compliance.



| Point No. <sup>1</sup> | Emission Point <sup>1</sup>        | Emissions Calculation Method <sup>1</sup> | Amount of Material Processed <sup>2</sup> | Units for Material Processed <sup>2</sup> | Emission Factor <sup>3</sup> | Units for Emission Factor <sup>3</sup> | Capture Efficiency | Control Device DRE | Overall Control Efficiency <sup>4</sup> | Monthly Emissions <sup>5</sup> (tons) |
|------------------------|------------------------------------|---|---|---|------------------------------|--|--------------------|--------------------|---|---------------------------------------|
| EP-34                  | Miscellaneous Boilers and Space    | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-35                  | Solvent Degreasers                 | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-36                  | Powerhouse Boiler #1               | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-37                  | Gasoline UST (3)                   | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-38                  | Scrap Paint and Spent Solvent      | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-39                  | NA                                 | NA  |   |   |                              |  |                    |                    |   |                                       |
| EP-40                  | Scuff Booths (5)                   | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-41                  | NA                                 | NA  |   |   |                              |  |                    |                    |   |                                       |
| EP-42                  | Miscellaneous Solvent Use          | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-43                  | Petroleum Tanks (3)                | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-44                  | 20,000 Gallon Windshield           | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-45                  | Waste Oil AST                      | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-46                  | Paint Mix Rooms                    | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-47                  | Passenger Ditch Molding            | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-48                  | Passenger Quarterglass Install     | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-49                  | Passenger Body Shop                | Mass Balance/<br>Emission Factor          |   |   |                              |  |                    |                    |   |                                       |
| EP-50                  | Fluid Fill Operations              | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-51                  | Wastewater Treatment Plant         | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-52                  | Product Storage Tanks              | Emission Factor                           |   |   |                              |  |                    |                    |   |                                       |
| EP-53                  | Fluidized Bed Skid Cleaner         | Mass Balance/<br>Engineering              |   |   |                              |  |                    |                    |   |                                       |
| EP-54                  | Passenger Purge and Clean          | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-55                  | Passenger Windshield Glass Install | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-56                  | Commercial Body Shop               | Mass Balance/<br>Emission Factor          |   |   |                              |  |                    |                    |   |                                       |
| EP-57                  | Commercial Purge and Clean         | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |
| EP-58                  | Commercial Windshield Glass        | Mass Balance                              |   |   |                              |  |                    |                    |   |                                       |

|  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| Sum of Monthly VOC Emissions from Entire Installation <sup>6</sup> |  |  |  |  |  |  |  |  |  |
| 12-Month VOC Emissions Total from Previous Month's Worksheet       |  |  |  |  |  |  |  |  |  |
| Monthly VOC Emissions Total from Previous Year's Worksheet         |  |  |  |  |  |  |  |  |  |
| Current 12-Month Total VOC Emissions <sup>7</sup>                  |  |  |  |  |  |  |  |  |  |

<sup>1</sup> The removal or addition of any equipment must be included in this list and documented on Attachment C

<sup>2</sup> Amount of VOC containing material used in conjunction with the equipment including units of measurement

<sup>3</sup> All emission factors used to demonstrate compliance with the VOC emissions limitation must be documented according to Special Condition 2

<sup>4</sup> All control efficiencies used to demonstrate compliance with the VOC emissions limitation must be documented according to Special Condition 2

<sup>5</sup> Monthly amount of VOC emissions in tons from each emission point, using the emission factor and overall control efficiency listed in Column 6 and Column 10

<sup>6</sup> Monthly amount of VOC emissions in tons from entire installation

<sup>7</sup> A current 12-month total VOC emissions of less than 2363 tons is in compliance.

## Table B: Emission Point Summary

Ford Motor Company – Kansas City Assembly Plant  
 Clay County, S27, T51, R32  
 Project Number: 2007-09-052  
 Installation ID Number: 047-0019  
 Permit Number:

| Emission Unit Description       | Emission Point Description                | Existing Emission Point Number | Proposed Emission Point Number |
|---------------------------------|---|--------------------------------|--------------------------------|
| Passenger Body Shop             | Passenger Body Shop Welding and Grinding  | EP-49                          | EP-49                          |
|                                 | Passenger Body Shop Sealer                | EP-42                          | <b>EP-49</b>                   |
| Passenger Electrocoat (E-Coat)  | Passenger E-Coat Tank                     | EP-02                          | EP-02                          |
|                                 | Passenger E-Coat Oven                     | EP-03                          | EP-03                          |
| Passenger Sealer                | Passenger Sealer Deck                     | EP-04                          | EP-04                          |
|                                 | Passenger Sealer Oven                     | EP-04                          | EP-04                          |
| Passenger PVC Enclosure         | Passenger PVC Booth                       | EP-05                          | EP-05                          |
|                                 | Passenger PVC Oven                        | EP-06                          | EP-06                          |
| Passenger Guidecoat             | Passenger Guidecoat Booth                 | EP-07                          | EP-07                          |
|                                 | Passenger Guidecoat Oven                  | EP-08                          | EP-08                          |
|                                 | Passenger Guidecoat Purge and Clean       | EP-39, EP-41                   | <b>EP-54</b>                   |
| Passenger Topcoat               | Passenger Topcoat Booth 1                 | EP-09                          | EP-09                          |
|                                 | Passenger Topcoat Booth 2                 | EP-10                          | EP-10                          |
|                                 | Passenger Topcoat Oven 1                  | EP-11                          | EP-11                          |
|                                 | Passenger Topcoat Oven 2                  | EP-12                          | EP-12                          |
|                                 | Passenger Topcoat Purge and Clean         | EP-39, EP-41                   | <b>EP-54</b>                   |
| Passenger Spot Repair           | EP-24                                     | EP-24                          |                                |
| Passenger Wax                   | Passenger Wax                             | EP-13                          | EP-13                          |
| Passenger Blackout              | Passenger Blackout Booth                  | EP-31                          | EP-31                          |
| Passenger Final Repair          | Passenger Final Repair Booth              | EP-26                          | EP-26                          |
|                                 | Passenger Final Repair Oven               | EP-27                          | EP-27                          |
| Passenger Glass Install         | Passenger Windshield Glass Install        | EP-42                          | <b>EP-55</b>                   |
|                                 | Passenger Quarterglass Install            | EP-48                          | EP-48                          |
| Passenger Ditch Molding         | Passenger Ditch Molding                   | EP-47                          | EP-47                          |
| Commercial Body Shop            | Commercial Body Shop Welding and Grinding | EP-49                          | <b>EP-56</b>                   |
|                                 | Commercial Body Shop Sealer               | EP-42                          | <b>EP-56</b>                   |
| Commercial Electrocoat (E-Coat) | Commercial E-Coat Tank                    | EP-15                          | EP-15                          |
|                                 | Commercial E-Coat Oven                    | EP-16                          | EP-16                          |
| Commercial Sealer               | Commercial Sealer Deck                    | EP-17                          | EP-17                          |
|                                 | Commercial Sealer Oven                    | EP-17                          | EP-17                          |
| Commercial Guidecoat            | Commercial Guidecoat Booth                | EP-18                          | EP-18                          |
|                                 | Commercial Guidecoat Oven                 | EP-19                          | EP-19                          |
|                                 | Commercial Guidecoat Purge and Clean      | EP-39, EP-41                   | <b>EP-57</b>                   |
| Commercial Topcoat              | Commercial Topcoat Booth                  | EP-20                          | EP-20                          |
|                                 | Commercial Tutone Booth                   | EP-21                          | EP-21                          |
|                                 | Commercial Topcoat Oven                   | EP-22                          | EP-22                          |

| <b>Emission Unit Description</b>          | <b>Emission Point Description</b>         | <b>Existing Emission Point Number</b> | <b>Proposed Emission Point Number</b> |
|---|---|---------------------------------------|---------------------------------------|
|   | Commercial Tutone Oven                    | EP-23                                 | EP-23                                 |
|   | Commercial Spot Repair                    | EP-24                                 | EP-24                                 |
|   | Commercial Topcoat Purge and Clean        | EP-39, EP-41                          | <b>EP-57</b>                          |
| Commercial Blackout                       | Commercial Blackout Booth                 | EP-25                                 | EP-25                                 |
| Commercial Final Repair                   | Commercial Final Repair Booth             | EP-26                                 | EP-26                                 |
|   | Commercial Final Repair Oven              | EP-27                                 | EP-27                                 |
| Commercial Glass Install                  | Commercial Windshield Glass Install       | EP-42                                 | <b>EP-58</b>                          |
| Powerhouse Boiler #1                      | Powerhouse Boiler #1                      | EP-36                                 | EP-36                                 |
| Powerhouse Boiler #2                      | Powerhouse Boiler #2                      | EP-33                                 | EP-33                                 |
| Powerhouse Boiler #3                      | Powerhouse Boiler #3                      | EP-33                                 | EP-33                                 |
| E-Lab Boiler                              | E-Lab Boiler                              | EP-34                                 | EP-34                                 |
| Fitness Room Boiler                       | Fitness Room Boiler                       | EP-34                                 | EP-34                                 |
| Solvent Degreasers                        | Solvent Degreasers                        | EP-35                                 | EP-35                                 |
| Gasoline UST (3)                          | Gasoline UST (3)                          | EP-37                                 | EP-37                                 |
| Scuff Booths (5)                          | Scuff Booths (5)                          | EP-40                                 | EP-40                                 |
| Seven 20 MMBTU/Hr Space Heaters           | Seven 20 MMBTU/Hr Space Heaters           | EP-34                                 | EP-34                                 |
| 20,000 Gallon Windshield Washer Fluid UST | 20,000 Gallon Windshield Washer Fluid UST | EP-44                                 | EP-44                                 |
| Miscellaneous Solvent Use                 | Miscellaneous Solvent Use                 | EP-42                                 | EP-42                                 |
| Fluidized Bed Skid Cleaner                | Fluidized Bed Skid Cleaner                | EP-53                                 | EP-53                                 |
| N/A                                       | Passenger Scrap Paint Tank                | EP-38                                 | EP-38                                 |
| N/A                                       | Passenger Spent Solvent Tank              | EP-38                                 | EP-38                                 |
| N/A                                       | Passenger Phosphate System                | EP-01                                 | EP-01                                 |
| N/A                                       | Passenger Phosphate Boiler                | EP-34                                 | EP-34                                 |
| N/A                                       | Passenger Fluid Fill                      | EP-50                                 | EP-50                                 |
| N/A                                       | Passenger Paint Mix Room                  | EP-46                                 | EP-46                                 |
| N/A                                       | Commercial Scrap Paint Tank               | EP-38                                 | EP-38                                 |
| N/A                                       | Commercial Spent Solvent Tank             | EP-38                                 | EP-38                                 |
| N/A                                       | Commercial Phosphate System               | EP-14                                 | EP-14                                 |
| N/A                                       | Commercial Phosphate Boiler               | EP-34                                 | EP-34                                 |
| N/A                                       | Commercial Fluid Fill                     | EP-50                                 | EP-50                                 |
| N/A                                       | Commercial Paint Mix Room                 | EP-46                                 | EP-46                                 |
| N/A                                       | Petroleum Tanks (3)                       | EP-43                                 | EP-43                                 |
| N/A                                       | Waste Oil AST                             | EP-45                                 | EP-45                                 |
| N/A                                       | Paint Stripper                            | EP-29                                 | EP-29                                 |
| N/A                                       | Wastewater Treatment Plant                | EP-51                                 | EP-51                                 |
| N/A                                       | Product Storage Tanks                     | EP-52                                 | EP-52                                 |
| N/A                                       | Space Heaters                             | EP-34                                 | EP-34                                 |
| N/A                                       | Hot Water Heaters                         | EP-34                                 | EP-34                                 |

## **Comments and Responses on the Final Draft Version of the Plantwide Applicability Limitation (PAL) Permit for Ford Motor Company in Kansas City, Missouri**

This document responds to comments made to the final draft version of the Plantwide Applicability Limitation (PAL) permit. The numbers of the Special Conditions in the comments may have changed. The numbers referenced in the response reflect the final Special Condition numbering in the issued construction permit.

The following comments were submitted by Ford Motor Company on February 8, 2008:

### Comment:

1) Special Condition 11B: Due to extended test report preparation times, especially for laboratory work associated with capture efficiency testing, Ford requests that the performance test reports must be submitted to the Staff Director within 60 days of completion of any required testing.

### APCP Response:

Requiring test reports to be submitted within 30 days of test completion is considered standard for any required performance test reports. For consistency among state-issued construction permits, the time limit on submitting the test reports will not be modified. However, the APCP understands that there are certain occasions that require additional report preparation time, as stated. Therefore, additional language will be included in the condition to allow for a later date, if approved by the Staff Director.

### Comment:

2). Special Condition 24C: The last sentence of the condition should be removed as this requirement (perform testing after initial startup) has already been performed. Any changes to this equipment would be covered under the requirements associated with the pre-approved changes.

### APCP Response:

In order to consolidate all of Ford's previously issued construction permits into one permit, these permits were superceded by the PAL permit and any active conditions were re-instated into the PAL permit. The condition referred to by Ford is a condition that was taken verbatim from a previous permit (Permit 0690-016). At the time of issuance, testing was required after initial start-up of the equipment. For historical purposes it will remain in the condition, but it will be noted that the requirements of this condition have been achieved and further testing is not required unless required under Special Condition 10 and 11.

Comment:

3). Special Condition 24D(2): The units should be corrected to "pounds of VOC per gallon of applied coating solids for the passenger topcoat system."

APCP Response:

The APCP agrees with Ford that the intent of his condition is to track average emission rate in pounds of VOC per gallon applied coating solids. This was a mistake in the draft permit and should be revised from "solvents" to "solids".

Comment:

4). Review Summary: The Kansas City Assembly Plant has storage tanks that are subject to the Organic Liquid Distribution (OLD) MACT Standard. If necessary, this should be added to the bullet point listing in the Review Summary.

APCP Response:

The APCP agrees with Ford, and this MACT standard has been added to the list of applicable requirements.

Comment:

5). Attachment A: Recordkeeping is currently required to be completed by the 20th day of the month. Due to extended plant shutdown periods that occur annually, Ford requests that the recordkeeping be completed by the 30th day of the month. This statement should be revised to state "By the 30th day following the end of the month, the Permittee shall calculate and record the following...". This would allow Ford time to complete records in months where plant downtime occurs (typically July and December).

APCP Response:

The intent of the current completion date requirement of the 20<sup>th</sup> is for the installation to demonstrate compliance with the VOC annual limitation. If the limitation is exceeded, Ford must report the exceedance within 10 days after the end of the month per Special Condition 2.C. Therefore, having the calculations completed by the 10<sup>th</sup> of the month serves to benefit Ford since it would allow Ford to confirm whether or not an exceedance has occurred prior to the reporting deadline. The APCP is already providing Ford some lenience in completing records by allowing them to complete records by the 20<sup>th</sup> of the month. Ford must complete calculations prior to the reporting deadline if an exceedance is expected, since Ford is still obligated to report exceedances pursuant to Special Condition 2.C. It will be a violation of permit conditions if no exceedance is reported by the 10<sup>th</sup> and calculations indicate an exceedance on the 20<sup>th</sup>.

However, the APCP understands that the Ford plant incurs extensive plantwide downtime, which could hinder the completion of records.

Therefore, additional language will be included in Attachment A to allow for a later date to be approved by the Staff Director, if foreseen delays are expected and an exceedance of the PAL limit is not expected.

Attachment A will read as follows:

### **Recordkeeping – Material Balance**

On each day of operation, the Permittee shall record and maintain records of the total quantity of all materials used containing VOC at the facility. The Permittee may request an extension of the record completion date by submitting the request in writing to the Staff Director. The request must be received at least 10 days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the Permittee shall calculate and record the following:

### **Recordkeeping – Emission Factor or Emission Model Calculations**

On each day of operation, the Permittee shall record and maintain records of the total quantity of materials used or hours of operation for each VOC emissions unit. The Permittee may request an extension of the record completion date by submitting the request in writing to the Staff Director. The request must be received at least 10 days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the Permittee shall calculate and record the following:

#### **Comment:**

6). Attachment A: Ford understands that Attachment A is intended as a simplified summary of emission calculation methodology, but to ensure compliance and future consistency, Ford requests that a sentence be added to the introductory paragraph of Attachment A for clarity. This sentence should state that in the event of any discrepancy between Attachment A and the Auto Protocol or Auto MACT-mandated requirements, the Auto Protocol and/or Auto MACT methodology will be followed.

#### **APCP Response:**

The summary referenced in the comment is Table A in Attachment A. Each emission point must have a description of the calculation methodology used in determining actual emissions for compliance with the limit. The APCP agrees that clarification of the table will help alleviate future discrepancies that may arise. The introductory paragraph of Attachment A will read as follows:

In the event of a discrepancy between any emission calculation methodology listed in Table A and those in the Auto Protocol or Auto MACT requirements, the Auto Protocol and/or Auto MACT methodology, combined with any EPA or APCP policies implementing the Auto Protocol and/or Auto MACT mandated requirements, shall take precedence.

The following comments were submitted by Ford in an email dated December 21, 2007 upon review of the first draft of the PAL permit. Response to comments are italicized.

1. Special Condition 7: As discussed previously, a note that the ambient air quality analysis requirement does not apply to sources subject to a MACT standard should be included. Additionally, there are several locations in the Review Summary that this should be noted as well.

*Sources subject to MACT do not need further HAP analysis. The narrative has been revised accordingly.*

2. Special Condition 10B and 10D: Capture efficiency testing has already been performed and will continue to be utilized until a change has been made that affects capture efficiency (as discussed above). Ford believes that Condition 10B (1) and 10D (2) would allow for the proposed methodology for evaluating capture efficiency without the need to perform additional capture efficiency every 5 years. Capture efficiency testing would only be performed following a change deemed to significantly affect capture efficiency. Please determine if you concur with this determination pending the above requested change to capture efficiency methodology.

*Our regulations reference the federal rules for PAL permitting under 10 CSR 10-6.060(8). Under the federal PAL rules, CFR 52.21(aa)(12)(ix), re-validation is necessary for continued compliance with the PAL. "All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Administrator. Such testing must occur at least once every 5 years after issuance of the PAL." At a minimum, Ford must be held responsible for defending any capture efficiencies once every 5 years if a testing is not completed.*

*APCP agrees that Condition 10B(1) and 10D(2) allows for the proposed methodology for evaluating capture efficiency without the need to perform additional capture efficiency testing. Capture efficiency testing would only be performed if determined and approved per Condition 9D.*

3. Special Condition 13A (3): We do not understand the intent of this condition. Will changes made to reduce the PAL under this option be conducted through traditional rulemaking where comments are obtained etc. or will there be targeted reductions outside of rulemaking? Ford understands the necessity to impose new requirements, but would expect that those requirements be implemented through a rulemaking process rather than specific permit modifications made outside of rulemaking.

*The APCP is required to periodically examine air quality in certain areas for violations to the air quality standards.*

4. Special Condition 22: This condition requires that Ford implement a QA/QC Plan including the range of operating conditions and outlet variables for normal operation and for all control equipment. This requirement is supposed to be completed within 60 days of permit issuance. However, testing to determine some of these parameters is required to be completed through 2008. Ford proposes that the timing be modified to state that the QA/QC plan will be developed or updated within 60 days of receipt of performance test reports.

*Only a table of contents is required 60 days after the permit issuance. However, the condition has been revised so that the updated plan is not due until "60 days of receipt of the performance test reports".*

5. Special Condition 23B: Many of the potential changes include changes where equipment replacement will occur. How is this condition intended to address like-kind replacement or reduced capacity changes that may occur? For example, should Ford decide to replace an existing 30 MMBTU/Hr Paint Oven with a 20 MMBTU/Hr Paint Oven, examination of the replacement oven alone could result in emissions exceeding the de minimis levels even though the environmental impact will be reduced at the site.

*The VOC emissions of the oven will be included in the PAL so a reduction due to the smaller oven will appear in the actual emissions counted towards the PAL. For all other criteria air pollutants, there is no mechanism to "pre-approve" like kind replacements. Therefore the changes approved in this permit must be treated like new constructions or modifications. As such, the emissions from these projects must be counted together as one project (i.e. the PAL project). Special Condition 23 is set forth to ensure that the project emissions of all the pre-approved changes to not exceed significance levels and thus trigger major review. If there is a reduction in the environmental impact, Ford should be able to meet the the de minimis limits.*

6. Review Summary, 3rd Bullet Point: Ford has no storage tanks subject to the NSPS, Subpart Kb.

*This has been removed.*

7. Review Summary, 10th Bullet Point: Should this reference the need to conduct Destruction Efficiency and Removal Efficiency testing on the emission control equipment?

*This is a summary point that only addresses the need for testing in general. The special conditions outlines the need for destruction and removal efficiencies.*

8. Review Summary, Applicable Requirements-General Requirements: Can those requirements, such as those related to odors, that are state-only

enforceable be identified in the permit? This would provide clarity for all parties regarding which items are federally-enforceable or state only-enforceable.

*In the interest of time, the state-only requirements have not been identified. However, you may comment on this during the comment period if you wish.*

9. Attachment A: Recordkeeping is required to be completed by the 20th day of the month. Ford requests that it be 30 days following the end of the month. This should be revised to state "By the 30th day following the end of the month, the Permittee shall calculate and record the following...". This would allow Ford time to complete records in months where plant downtime occurs (July and December).

*This requirement is a reflection of the requirements set forth on 3M in their flexible permit. Originally in that permit, the recordkeeping requirement allowed for 10 days after the end of the month to complete calculations. Upon request from 3M and after evaluating the time frame, APCP conceded with this time frame based on 3M's operational setup. When drafting the Ford PAL permit, this time frame was inadvertently left at 20 days (and not returned to 10 days). The APCP is willing to keep the 20 day time frame for Ford. However, any further extension cannot be granted at this time.*

Mr. Robert Streight  
Environmental Control Engineer  
Ford Motor Company  
Three Parklane Blvd, Suite 950  
Dearborn, MO 48126

RE: New Source Review Permit - Project Number: 2007-09-052

Dear Mr. Streight:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Emily Wilbur at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by phone at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:ewl

Enclosures

c: Kansas City Regional Office  
PAMS File 2007-09-052

Permit Number: