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Kansas
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AIR EMISSION SOURCE CONSTRUCTION PERMIT

Source ID No.: 1730309

Effective Date: DRAFT, 2016

Source Name: Spirit AeroSystems, Inc.

SIC Code: 3721, Aircraft Manufacturing

NAICS Code: 336411, Aircraft Manufacturing

Source Location: 3801 South Oliver Street
Wichita, Sedgwick County, Kansas 67210

Mailing Address: P.O. Box 780008, MC K06-94
Wichita, Kansas 67278-0008

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This permit is issued pursuant to K.S.A. 65-3008 as amended.

I. Description of Activity Subject to Air Pollution Control Regulations

Spirit AeroSystems, Inc. (Spirit) operates an aerospace parts and assemblies manufacturing facility located at 3801 South Oliver Street, Wichita, Kansas. Spirit is proposing to expand the production rate of its 737 production line from 31 to 57 airplane fuselages per month (APM).

On February 22, 2012, Spirit was issued a permit (reference C-9905) to construct an expansion of the 737 production line from 31 to 42 APM via a debottlenecking of the assembled fuselage paint booth, CAMO I Paint Area (EU-2309K-P1). This debottlenecking was accomplished through the construction and operation of a separate paint booth handling that does the same work as CAMO I Paint Area, identified as the North Plant 2 Booth (EU-2297F-B7) along with other assembly and fabrication emission units.

Spirit was then issued a subsequent updated version of this permit on September 10, 2012 (C-10497) when the design of the expansion required installation of new sludge dryers to handle waste from the tank line. A second permit revision was issued on November 19, 2012 (C-10691) when a second

regenerative thermal oxidizer (RTO) for the CAMO I Paint Area was installed. The third permit revision was issued on May 17, 2013 (C-11237) when an additional regenerative carbon adsorption system (RCAS) for emission control of the chemical milling maskant spray booth was needed. At the time of issuance for this permit and subsequent updates, Spirit was considering plans to expand the 737 fuselage production further. Since this further expansion was not an economic reality at the time of the 31 to 42 APM expansion and no specific design plans were completed, Spirit could not permit this further expansion.

Spirit is now planning to produce 737 fuselages at a further expanded rate of 57 APM. Since plans for this further expansion were documented in 2012 but not finalized or acted upon until now, Spirit is permitting this expansion from current fuselage production rate of 42 to 57 APM in combination with the originally permitted expansion of 31 to 42 APM. This makes the effective 737 fuselage rate increase for this Prevention of Significant Deterioration permit from 31 to 57 APM (the Project).

The modifications Spirit made to increase their 737 airplane fuselage production from 31 to 42 APM are accounted for in the May 17, 2013 construction permit (C-11237) and include two regenerative thermal oxidizers (RTOs) to control volatile organic compound (VOC) emissions from the existing CAMO I booth (EU-2309K-P1) and one RTO to control VOC emissions from a new North Plant 2 Booth (EU-2297F-B7). Other equipment installed as part of the original expansion (from 31 to 42 APM) includes two chord trimmers, an extrusion mill, two hi-speed mills, a 6-axis mill, a trim and drill machine, a cooling tower, two sludge dryers, and an additional RCAS in parallel with the existing CAS to the Manufacturing Process Facility (MPF) Spray Maskant Operation.

In addition to the existing emission units, Spirit is proposing to install and operate an additional trim and drill machine, a new robotic drill, a clean-up sanding booth, and a combination spray booth and oven (IPB4 Spoven) to reach the targeted 57 APM for the Project. The last modification Spirit proposes for the Project is a material substitution for the current primer used in the CAMO I Paint Area (EU-2309K-P1) and the North Plant 2 Booth (EU-2297F-B7). The current primer is designated BMS 10-11 Type 1 Grade E. The substitute primer formulation is designated BMS 10-11 Type 1 Grade A. This operation change will result in increased volatile organic compound (VOC) and certain hazardous air pollutant (HAP) emissions. Changes in emission from this substitution are detailed in CAMO I and North Plant 2 Booth calculations in Appendix B submitted by Spirit on March 24, 2016 and revised on July 6, 2016.

Potential emissions of particulate matter (PM), PM with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}), PM with an aerodynamic diameter less than or equal to 2.5 micrometers ($PM_{2.5}$), sulfur dioxide (SO_2), carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NO_X), hazardous air pollutants (HAPs), lead, and greenhouse gases (GHGs) were evaluated as part of the permit review process. The Project is subject to the provisions of **K.A.R. 28-19-300 (Construction permits and approvals; applicability)** because the uncontrolled potential-to-emit[1] (PTE) of VOC exceeds the permit threshold levels as specified in K.A.R. 28-19-300(a)(1).

The Project is subject to the provisions of *40 CFR Part 63*, as adopted by **K.A.R. 28-19-750 (Hazardous air pollutants; maximum achievable control technology**) because the facility is an existing major source of HAPs, with an estimated PTE of HAPs from the facility greater than 10 tons per year for a single HAP, and the estimated PTE of all HAPs in the aggregate greater than 25 tons per

[1] Potential-to-emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on a capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

year. The two existing natural gas-fired sludge dryers and the new combination spray booth/oven are subject to the requirements of *40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters* (MACT 5D), as adopted by K.A.R. 28-19-750. The entire facility is subject to the requirements of *40 CFR 63, Subpart GG, National Emission Standards for Aerospace Manufacturing and Rework Facilities* (MACT GG), as adopted by K.A.R. 28-19-750.

K.A.R. 28-19-350, **Prevention of Significant Deterioration of Air Quality,** which adopts by reference *40 CFR 52.21, Prevention of Significant Deterioration (PSD)* and incorporates Greenhouse Gases (GHGs) regulatory provisions was amended on December 28, 2012. Sources that are going through PSD permitting for pollutants other than GHGs are subject to PSD permitting for GHGs if emissions of GHGs exceed 75,000 tons per year on a carbon dioxide equivalent (CO_2e) basis. For those affected facilities, Best Available Control Technology (BACT) is required for GHG emissions.

The facility is an existing major stationary source for VOC and PM_{10} and is subject to the requirements of *40 CFR 52.21*, as adopted by K.A.R. 28-19-350. Therefore, the potential emissions of NO_X, SO_2, CO, VOC, PM, PM_{10}, $PM_{2.5}$, lead, and CO_2e were evaluated using the calculation procedures specified in *40 CFR 52.21*.

The Project constitutes a major modification under *40 CFR 52.21* because it results in a significant emissions increase of VOC greater than the PSD significant emission rate of 40 tons per year. Pursuant to *40 CFR 52.21*, since VOC emissions for the Project are significant, emissions of ozone (O_3) precursors are deemed significant. VOC and NO_X are precursors and therefore surrogate for O_3, and VOC and NO_X controls will be deemed controls for O_3. As a result, since the VOC emissions, but not NO_X emissions, for the Project are significant, the Project is subject to BACT for VOC which is considered BACT for O_3.

Pursuant to PSD requirements, an ambient air quality impact analysis, an additional impact analysis, and a BACT determination were conducted as a part of the construction permit application process. An impact analysis was performed for O_3 and VOC.

BACT-based emission limitations were determined for emission units that were new or existing and undergo a physical or operational change, and resulted in increased emissions. The emission units considered new for this PSD Project are the North Plant 2 Booth, two natural gas-fired sludge dryers, and a combination spray booth and oven (IPB4 Spoven). Therefore, BACT is triggered for VOC emission from these emission units. VOC emission increases that result from increased utilization of existing emission units, but did not undergo physical or operational changes, are not subject to the BACT requirements.

II. Significant Applicable Air Pollution Control Regulations

A. K.A.R. 28-19-11, Enforcement Discretion Due to Startup, Shutdown, Malfunctions, or Scheduled Maintenance – as applied to state regulations K.A.R. 28-19-30 through 32 and K.A.R. 28-19-650.

B. K.A.R. 28-19-30 through 32, Indirect Heating Equipment Emissions.

C. K.A.R. 28-19-300, Construction Permits and Approvals; Applicability.

D. K.A.R. 28-19-350, which adopts by reference 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality.

E. K.A.R. 28-19-650, Emissions Opacity Limits.

F. K.A.R. 28-19-750, which adopts by reference 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants.

G. 40 CFR Part 63, Subpart A, General Provisions.

H. 40 CFR Part 63, Subpart GG, National Emissions Standards for Aerospace Manufacturing and Rework Facilities (MACT GG).

I. 40 Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (MACT DDDDD).

III. Air Emission Unit Technical Specifications

The following equipment or equivalent is approved:

A. Three (3) existing Adwest Technologies, Inc. Regenerative Thermal Oxidizers (RTOs), Model RETOX 25.0 RTO97, 7.3695 million British thermal units per hour (MMBtu/hr) burner capacity, natural gas-fired. Units are designated CE-2309K-P1FN and CE-2309K-P1FS for the two (2) RTOs that control VOC emissions from CAMO I Paint Area (EU-2309K-P1), and CE-2297F-B7F for the one RTO that controls VOC emissions from the North Plant 2 Booth (EU-2297F-B7).

B. One (1) existing paint booth designated EU-2297F-B7 (also referred as North Plant 2 Booth), used for surface coating of 737 fuselages, which will operate 24 hours per day, 296 days per year (7,104 hours per year). There are two spray coating operations that will be conducted in the North Plant 2 Booth. Operation 1 is exterior surface coating of the 737 fuselage and Operation 2 is interior coating of the entire 737 fuselage. Emissions from Operation 1 will be sent through a fabric filter and emitted through the North Plant 2 Booth stack at an exhaust flow rate of 150,000 standard cubic feet per minute (scfm). Emissions from Operation 2 will come from enclosed 737 fuselage through the Emission Control Enclosures (ECEs). The ECEs marry up to the cargo doors of the fully assembled fuselage and the passenger doors and windows are sealed so that the airflow and the paint emissions are isolated within the fuselage. This concentrates the VOC emissions before exhausting to the RTO. The RTO is sized for a 25,000 scfm exhaust flow through the fuselage and not the entire booth. PM emissions will be controlled by fabric filters (CE-2297F-B7), and VOC emissions from Operation 2 will be controlled by an RTO (CE-2297F-B7F). The North Plant 2 Booth is subject to the requirements of 40 CFR Part 63 Subpart GG. The North Plant 2 Booth is subject to the requirements of K.A.R. 28-19-350, Prevention of Significant Deterioration (PSD) of Air Quality, which adopts by reference 40 CFR 52.21. The North Plant 2 Booth is subject to BACT for VOC.

C. Two (2) existing chord trimmers, designated EU-3193G-PM31 and 32. PM emissions will be controlled by cyclone/filter units (CE-3193G-PM31 and 32).

D. One (1) existing Modig WZY model extrusion mill, designated EU-3193G-PM33. PM emissions will be controlled by a fabric filter (CE-3193G-PM33).

E. Two (2) existing Makino A7 MAG7 model Hi-speed mills, designated EU-2280J-PM49 and 50. PM emissions will be controlled by cyclone/filter units (CE-2280J-PM49 and 50).

F. One (1) existing Mazak Vortex 6-axis mill, designated EU-2280J-PM51. PM emissions will be controlled by a cyclone/filter unit (CE-2280J-PM51).

G. One (1) existing Trim and Drill Machine with 40-foot T-slot/40-foot Pogo, designated EU-2280J-PM52. PM emissions will be controlled by a fabric filter (CE-2280J-PM52).

H. One (1) existing induced draft cooling tower, designated EU-2280J-CT1.

I. Two (2) existing natural gas-fired sludge dryers, each with a heat input rating of 0.408 MMBtu/hr, will operate at full load for 8,760 hours per year, designated EU-55028-PM4 and EU-55028-PM5. The natural gas-fired sludge dryers are subject to the requirements of 40 CFR Part 63 Subpart DDDDD. The natural gas-fired sludge dryers are subject to the requirements of K.A.R. 28-19-350, Prevention of Significant Deterioration (PSD) of Air Quality, which adopts by reference 40 CFR 52.21. The natural gas-fired sludge dryers are subject to BACT for VOC.

J. One (1) existing regenerative carbon adsorption system (RCAS) (designated CE-CARBON2) added in parallel to the existing RCAS (designated CE-CARBON) which will both control emissions from the existing MPF Spray Maskant Operation (designated EU-2278M-MSK).

K. One (1) new additional carbon bed to the existing RCAS (designated CE-CARBON).

L. One (1) new additional Trim and Drill machine with 40-foot T-slot/40-foot Pogo, designated EU-2280J-PM53. PM emissions will be controlled by a fabric filter (CE-2280J-PM53).

M. One (1) new Robotic Drill, designated IA-3187S-PM22.

N. One (1) new Clean-up Sanding Booth, designated IA-3187S-PM23. PM emissions will be controlled by a fabric filter (CE-3187S-PM23).

O. One (1) new combination Spray Booth/Oven (IPB4 Spoven), designated EU-3187S-B4. The spray booth will be heated by a natural gas-fired burner with a heat input rating of 6.0 MMBtu/hr at full load, operating 16 hours a day, 5 days a week, 50 weeks per year (4,000 hours per year), and has an exhaust flow rate of 40,000 scfm. PM emissions will be controlled by a fabric filter (CE-3187S-B4). The IPB4 Spoven booth is subject to the requirements of 40 CFR Part 63 Subpart GG. The IPB4 Spoven *oven* is subject to the requirements of 40 CFR Part 63 Subpart DDDDD. The IPB4 Spoven booth and oven are subject to the requirements of K.A.R. 28-19-350, Prevention of Significant Deterioration (PSD) of Air Quality, which adopts by reference 40 CFR 52.21. The Spoven booth and oven are subject to BACT for VOC.

IV. Air Emission Estimates from the Proposed Activity

The following table contains the estimated emissions for air pollutants to be emitted from the proposed Project:

Table 1. Estimated Emissions			
Pollutant	**The Project**	**Facility-Wide**	
	Total Emission Increase (tons per year)	**Contemporaneous Emission Change (tons per year)**	**Net Emission Change (tons per year)**
VOC[2]	97.14	11.37	108.50
PM	20.94		20.94
PM_{10}	12.98		12.98
$PM_{2.5}$	9.02		9.02
NO_X	20.51		20.51
SO_2	0.07		0.07
CO	9.26		9.26
Lead	5.51×10^{-5}		5.51×10^{-5}
Total HAPs	87.78		87.78
Individual Hazardous Air Pollutants (HAPs)[3]:			
-Perchloethylene	58.77		58.77
-Toluene	21.06		21.06
-Xylene	3.83		3.83
Carbon Dioxide Equivalent (CO_2e) Greenhouse Gases (GHG)[4]:	14,652.70		14,652.70
-Carbon Dioxide (CO_2)	14,625.35		14,625.35
-Methane (CH_4)	6.34		6.34
-Nitrous Oxide (N_2O)	21.02		21.02

[2] VOC emissions for the Project exceed the 40 tons per year significance threshold. Therefore pursuant to 40 CFR 52.21, the Project is also significant for O_3. Since VOC is one of the surrogates for O_3, BACT for VOC will be considered BACT for O_3.

[3] Only the three individual HAPs with the largest PTE have been listed, which account for 95% of total HAPs. For detailed HAPs PTE estimates, which include all HAPs, refer to the permit application attachment, Excel file "Spirit 737 Expansion Booth and RTO Calcs 57APM FINAL.xlsx", submitted on March 24, 2016; and revised as Excel file "Spirit 737 Expansion Booth and RTO Calcs 57APM VOC Spec (rev7.6.16).xlsx", submitted on July 6, 2016.

[4] Greenhouse gas emissions are converted to CO_2-based equivalent emissions.

V. State Regulatory Requirements

A. K.A.R. 28-19-30 through 32

1. K.A.R. 28-19-31(a) limits filterable particulate matter emissions from the sludge dryers (EU-55028-PM4 and EU-55028-PM5) and IPB4 Spoven *oven* (EU-3187S-B4) to 0.6 lb/MMBtu, except as provided in K.A.R. 28-19-11.

2. K.A.R. 28-19-31(b) limits visible contaminant emissions from the sludge dryers (EU-55028-PM4 and EU-55028-PM5) and IPB4 Spoven *oven* (EU-3187S-B4) to less than 20 percent opacity, except as provided in K.A.R. 28-19-11.

B. K.A.R 28-19-650

1. K.A.R. 28-19-650(a)(2) limits visible air emissions from CAMO I Paint Area (EU-2309K-P1) to less than 40 percent opacity, except as provided in K.A.R. 28-19-11.

2. K.A.R. 28-19-650(a)(3) limits visible air emissions from any new sources to less than 20 percent opacity, except as provided in K.A.R. 28-19-11.

C. Notification

Notify the Air Program Field Staff at the Wichita Department of Environmental Health (WDEH) office, 1900 East 9th Street, (316) 268-8353, within 30 days after construction is complete so that an evaluation may be conducted.

VI. K.A.R. 28-19-350 Prevention of Significant Deterioration

A. BACT Emission Limitations

1. BACT emissions of pollutants from the North Plant 2 Booth (EU-2297F-B7) shall be no greater than limitations specified below. 40 CFR Part 63 Subpart GG requirements are included in a separate section of the permit as applicable.

   a. Emissions of VOCs shall not exceed 2.15 lb/hour (6.01 ppm) and shall apply at all times, including startup and shutdown (1-hour averaging period) for Operation 2 (interior coating of fuselage) that uses Emission Control Enclosures (ECEs) and regenerative thermal oxidizer (RTO) in the North Plant 2 Booth. The RTO for the ECEs is sized for a 25,000 scfm exhaust flow.

   b. The BACT for VOC for Operation 2 in the North Plant 2 Booth shall be the use of ECEs with an RTO and compliance with 40 CFR Part 63 Subpart GG.

   c. The BACT for VOC for Operation 1 (exterior coating of fuselage) in the North Plant 2 Booth shall be compliance with 40 CFR Part 63 Subpart GG.

2. BACT emissions of pollutants from the IPB4 Spoven *booth* (EU-3187S-B4) shall be no greater than limitations specified below. 40 CFR Part 63 Subpart GG requirements are included in a separate section of the permit as applicable.

   a. Emissions of VOCs shall not exceed 1.34 lb/hour (2.34 ppm) and shall apply at all times, including startup and shutdown (1-hour averaging period).

   b. The BACT for VOC shall be the compliance with 40 CFR Part 63 Subpart GG.

3. BACT emissions of pollutants from the IPB4 Spoven *oven* (EU-3187S-B4) shall be no greater than limitations specified below. 40 CFR Part 63 Subpart DDDDD requirements are included in a separate section of the permit as applicable.

   a. Emissions of VOC shall not exceed 0.0054 lb/MMBtu (5.5 lb/MMscf) and shall apply at all times, including startup and shutdown.

   b. The BACT for VOC shall be the use of pipeline quality natural gas[5] and good combustion practices.

4. BACT emissions of pollutants from any natural gas-fired sludge dryer (EU-55028-PM4 or EU-55028-PM5) shall be no greater than limitations specified below. 40 CFR Part 63 Subpart DDDDD requirements are included in a separate section of the permit as applicable.

   a. Emissions of VOC shall not exceed 0.0054 lb/MMBtu (5.5 lb/MMscf) and shall apply at all times, including startup and shutdown.

   b. The BACT for VOC shall be the use of pipeline quality natural gas and good combustion practices.

B. Operating Limitations

1. The North Plant 2 Booth (EU-2297F-B7) shall be limited to 7,104 hours of operation per year, which equates to VOC emissions of 24.48 tons per year.

2. The IPB4 Spoven booth and oven (EU-3187S-B4) shall be limited to 4,000 hours of operation per year, which equates to a total VOC emissions of 2.74 tons per year (2.68 tpy for the booth and 0.06 tpy for the oven).

3. The following emission units shall be permanently removed from the facility: two hard chromium plating tanks (EU-2278M-T322 and EU-2278M-T323), one Chaku ladder paint booth (EU-2297F-B4), five Boiler House boilers, 33.6 MMBtu/hr each, fueled by natural gas and/or No. 6 fuel oil (EU-2260H-BLR1, EU-2260H-BLR2, EU-2260H-BLR3, EU-2260H-BLR4, and EU-2260H-BLR5), and one burn out oven (EU-2265O-INC1).

[5] Pipeline quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions and which is provided by a supplier through a pipeline. Pipeline quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 Btu per standard cubic foot. The H_2S content shall be less than 4 ppm per 100 cubic feet of gas.

4. To ensure that the RTO (CE-2297F-B7F) in the North Plant 2 Booth and the two RTOs (CE-2309K-P1FN and CE-2309K-P1F) in CAMO I Paint Area are operating during painting operations, the owner or operator shall shut off the air supply to the spray guns unless the oxidation chamber of each RTO is within the optimum temperature range as established in the performance testing in Section D. Performance Testing Requirements of this permit. If each RTO's oxidation chamber temperature drops out of the optimum range, the air supply to the spray guns shall be immediately shut off, and shall only be turned on when the chamber temperature returns to within this operating range.

5. The RTO (CE-2297F-B7F) shall be in place and continuously operated within the optimum temperature range to control emissions of VOCs and HAPs whenever Operation 2 (interior coating) occurs within the ECEs of the North Plant 2 Booth. The two RTOs (CE-2309K-P1FN and CE-2309K-P1F) shall be in place and continuously operated within the optimum temperature range to control emissions of VOCs and HAPs whenever painting operation occurs within the CAMO I Paint Area. RTOs shall be operated within the optimum temperature range as established in the performance testing in Section D. Performance Testing Requirements of this permit. This is to ensure that destruction efficiency established during performance testing shall be maintained.

6. The two RCAS (CE-CARBON and CE-CARBON2) shall be in place and continuously operated within the optimum range of operating parameters established in the performance testing in Section D. Performance Testing Requirements of this permit, whenever the chemical milling maskant operation occurs in the existing MPF Spray Maskant (EU-2278M-MSK).

7. All control equipment identified in **Section III, Paragraph B to N** of this permit shall be continuously operated while the emission units associated with them are operating.

8. A written pollution control equipment maintenance plan shall be developed, implemented, and maintained on-site within 180 days of permit issuance to assure proper operation of the air pollution control equipment.

9. The owner or operator shall maintain a log showing the date of all routine or other maintenance or repairs to the control equipment, the action taken on such date, and any corrective action or preventative measures taken.

10. The owner or operator shall operate and maintain all emission units, air pollution control equipment, and monitoring equipment in accordance with the manufacturer's recommendations, in a manner consistent with good combustion practices for minimizing emissions at all times, including periods of startup, shutdown, and malfunction.

C. Compliance Requirements

1. Compliance with A. BACT Emission Limitations 1a is established by performance testing as identified in D. Performance Testing Requirements.

2. Compliance with A. BACT Emission Limitations 2 is established by demonstrating compliance with 40 CFR Part 63 Subpart GG.

3. Compliance with A. BACT Emission Limitations 3b is established by recordkeeping as identified in F. Recordkeeping Requirements 3.

4. Compliance with A. BACT Emission Limitations 4b is established by recordkeeping as identified in F. Recordkeeping Requirements 4.

5. Compliance with B. Operating Limitations 1 is established by monitoring as identified in E. Monitoring Requirements 1.

6. Compliance with B. Operating Limitations 2 is established by monitoring as identified in E. Monitoring Requirements 2.

D. Performance Testing Requirements

1. The RTO (CE-2297F-B7F) associated with ECEs, which control emissions from the North Plant 2 Booth's Operation 2 shall be included in the performance test to establish the RTO's optimum temperature range that will achieve BACT VOC emission limit of ≤ 6.01 ppm (2.15 lb/hr) at all times, including startup and shutdown.

2. RTOs (CE-2309K-P1FN and CE-2309K-P1FS) that control emissions from the CAMO I Paint Area shall be included in the performance test to establish the RTOs' optimum temperature range following performance testing requirements of 40 CFR Part 63 Subpart GG.

3. All regenerative carbon adsorption systems (CE-CARBON and CE-CARBON2) that control emissions from the MPF Spray Maskant Operation shall be included in the performance testing to establish operating parameters following performance testing requirements of 40 CFR Part 63 Subpart GG.

4. The performance test shall be conducted within 180 days after startup to demonstrate compliance with the BACT emission limitation as specified in C. Compliance Requirements 1. This testing schedule shall not supersede performance test requirements for any applicable federal rules.

5. A performance test protocol and the proposed test schedule shall be submitted 60 days prior to testing and the protocol is subject to KDHE approval.

6. Operating parameters and other results of performance testing shall be submitted in a formal test report to KDHE 60 days after the performance testing was conducted.

7. Performance testing of each RTO and each RCAS shall be done once every five (5) years to demonstrate continuous compliance.

E. Monitoring Requirements

1. The owner or operator shall monitor the hours of operation of the North Plant 2 Booth.

2. The owner or operator shall monitor the hours of operation of the IPB4 Spoven booth and oven.

3. The owner or operator shall monitor operating parameters established in the performance test for each RTO and for each RCAS.

F. Recordkeeping Requirements

1. The owner or operator shall maintain records of hours of operation of the North Plant 2 Booth.

2. The owner or operator shall maintain records of hours of operation of the IPB4 Spoven booth and oven.

3. The owner or operator shall keep records of fuel purchases to demonstrate that only pipeline quality natural gas is burned in the IPB4 Spoven *oven*.

4. The owner or operator shall keep records of fuel purchases to demonstrate that only pipeline quality natural gas is burned in the sludge dryers.

5. The owner or operator shall develop and maintain a record of all startup, shutdown, and malfunction activities, including malfunction in the operation of each unit and any malfunction of any air pollution control equipment. The record shall also include all maintenance activities including the nature of all repairs taken to correct malfunction incidents.

6. Records shall be kept documenting any performance test conducted.

7. Records shall be kept on site and in a form readily available for inspection.

8. All records shall be retained for five years from the date of record.

G. Reporting Requirements

1. The owner or operator shall submit semiannual reports detailing compliance with the emission and operating limitations, monitoring, recordkeeping, and reporting requirements established in this permit; emissions measured or calculated shall be expressed in the same units as the BACT emission limitations. These reports shall be submitted within 30 days following the end of each semiannual period. The semiannual report can be included in the Title V semiannual report. The semiannual report for this permit shall include:
   a. The company name and address of the facility.
   b. An identification of each emission unit being included in the semiannual report.
   c. Beginning and ending dates of the reporting period.
   d. Excess emissions and monitor downtime. The owner or operator shall report excess emissions for all periods of unit operation, including startup, shutdown, and malfunction.
   e. A summary of startup, shutdown, malfunction events which occurred during the reporting period.

2. The owner or operator must notify KDHE by telephone, facsimile, or electronic mail transmission within two working days following the discovery of any failure of air pollution control equipment, process equipment, or process to operate in a normal manner

which results in an increase in emissions above any allowable emission limitation. In addition, the owner or operator must notify KDHE in writing within ten days of any such failure. The written notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed, and the methods utilized to mitigate emissions and restore normal operation.

VII. 40 CFR Part 63 Subpart GG

The owner or operator shall comply with the sections of 40 CFR Part 63 Subpart GG specified below. These requirements shall apply to those activities involving cleaning operations, primer and topcoat application operation, chemical milling maskant application, waste storage and handling operation, and spray booth, portable enclosure, or hangar that contains a primer, topcoat, or specialty coating application operations of aerospace vehicles and components; and shall not include activities excluded or exempted under sections 40 CFR 63.741, 63.743, 63.744, 63.745, 63.747, 63.748 or other applicable sections of 40 CFR Part 63 Subpart GG.

A. Emission Limitations

1. For uncontrolled coating operations (i.e., no control device is used to reduce organic HAP and VOC emissions from the operation), the owner or operator shall comply with the organic HAP and VOC content limits specified below:

   a. Organic HAP emissions from primers shall be limited to an organic HAP content level of no more than 650 g/L (5.4 lb/gal) of exterior primer (less water), as applied, to large commercial aircraft components (parts or assemblies. [40 CFR 63.745(c)(1)]

   b. VOC emissions from primers shall be limited to a VOC content level of no more than 650 g/L (5.4 lb/gal) of exterior primer (less water and exempt solvents), as applied, to large commercial aircraft components (parts or assemblies). [40 CFR 63.745(c)(2)]

   c. Organic HAP emissions from topcoats shall be limited to an organic HAP content level of no more than 420 g/L (3.5 lb/gal) of coating (less water) as applied. [40 CFR 63.745(c)(3)]

   d. Organic HAP emissions from self-priming topcoats shall be limited to an organic HAP content level of no more than 420 g/L (3.5 lb/gal) of self-priming topcoat (less water) as applied. [40 CFR 63.745(c)(3)]

   e. VOC emissions from topcoats shall be limited to a VOC content level of no more than 420 g/L (3.5 lb/gal) of coating (less water and exempt solvents) as applied. [40 CFR 63.745(c)(4)]

   f. VOC emissions from self-priming topcoats shall be limited to a VOC content level of no more than 420 g/L (3.5 lb/gal) of self-priming topcoat (less water and exempt solvents) as applied. [40 CFR 63.745(c)(4)]

g. Organic HAP emissions from specialty coatings shall be limited to an organic HAP content level of no more than the HAP content limit specified in Table 1 (*Specialty Coatings—HAP and VOC Content Limits*) of 40 CFR 63.745 for each applicable specialty coating type. [40 CFR 63.745(c)(5)]

h. VOC emissions from specialty coatings shall be limited to a VOC content level of no more than the VOC content limit specified in Table 1 (*Specialty Coatings—HAP and VOC Content Limits*) of 40 CFR 63.745 for each applicable specialty coating type [40 CFR 63.745(c)(6)]

2. For uncontrolled chemical milling maskant operations, the owner or operator shall comply with the organic HAP and VOC content limits specified below:

a. Organic HAP emissions from chemical milling maskants shall be limited to organic HAP content levels of no more than 622 grams of organic HAP per liter (5.2 lb/gal) of Type I chemical milling maskant (less water) as applied, and no more than 160 grams of organic HAP per liter (1.3 lb/gal) of Type II chemical milling maskant (less water) as applied. [40 CFR 63.747(c)(1)]

b. VOC emissions from chemical milling maskants shall be limited to VOC content levels of no more than 622 grams of VOC per liter (5.2 lb/gal) of Type I chemical milling maskant (less water and exempt solvents) as applied, and no more than 160 grams of VOC per liter (1.3 lb/gal) of Type II chemical milling maskant (less water and exempt solvents) as applied. [40 CFR 63.747(c)(2)]

B. <u>Operating Limitations: General</u>

1. Except as provided in 40 CFR 63.743 (a)(4) through (10) and in Table 1 of 40 CFR Part 63 Subpart GG, the owner or operator of an affected source subject to this subpart is also subject to the following sections of 40 CFR Part 63 Subpart A:

a. 40 CFR 63.4, Prohibited activities and circumvention;

b. 40 CFR 63.5, Preconstruction review and notification requirements; and

c. 40 CFR 63.6, Compliance with standards and maintenance requirements. [40 CFR 63.743(a)(1) through (3)]

d. For the purposes of 40 CFR Part 63 Subpart GG, all affected sources shall submit any request for an extension of compliance not later than 120 days before the affected source's compliance date. The extension request should be requested for the shortest time necessary to attain compliance, but in no case shall exceed 1 year. [40 CFR 63.743(a)(4)]

e. For the purposes of 40 CFR Part 63 Subpart GG, the owner or operator who has submitted an extension request application under 40 CFR 63.6(i)(5) is to be provided 30 calendar days to present additional information or arguments to the Administrator after he/she is notified that the application is not complete, rather

than 15 calendar days as provided for in 40 CFR 63.6(i)(13)(ii). [40 CFR 63.743(a)(7)]

f. For the purposes of 40 CFR Part 63 Subpart GG, each owner or operator is to be provided 30 calendar days to present additional information to the Administrator after he/she is notified of the intended denial of a compliance extension request submitted under either 40 CFR 63.6(i)(4) or 63.6(i)(5), rather than 15 calendar days as provided for in 40 CFR 63.6(i)(12)(iii)(B) and 63.6(i)(13)(iii)(B). [40 CFR 63.743(a)(8)]

2. The owner or operator of an air pollution control device or equipment not listed in 40 CFR Part 63 Subpart GG shall submit a description of the device or equipment, test data verifying the performance of the device or equipment in controlling organic HAP and/or VOC emissions, as appropriate, and specific operating parameters that will be monitored to establish compliance with the standards to KDHE or EPA for approval not later than 120 days prior to the compliance date. [40 CFR 63.743(c)]

3. Instead of complying with the individual coating limits in 40 CFR 63.745 and 40 CFR 63.747, a facility may choose to comply with the averaging provisions specified in 40 CFR 63.743(d)(1) through (6). [40 CFR 63.743(d)]

4. At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.743(e)]

C. Operating Limitations: Cleaning Operations

1. The owner or operator shall comply with the housekeeping measures specified in 40 CFR 63.744(a).

2. The owner or operator shall comply with one or more of the hand-wipe solvent content limitations set by 40 CFR 63.744(b). Cleaning solvent solutions that contain HAP and VOC below the de minimis levels specified in 40 CFR 63.741(f) are exempt from the requirements in 40 CFR 63.744(b)(1), (b)(2), and (b)(3).

3. The owner or operator shall comply with one or more of the techniques, or their equivalent, specified in 40 CFR 63.744(c) when cleaning spray guns. Spray gun cleaning operations using cleaning solvent solutions that contain HAP and VOC below the de minimis levels specified in 40 CFR 63.741(f) are exempt from the requirements in 40 CFR 63.744(c)(1) through (4).

4. The owner or operator of a flush cleaning operation subject to 40 CFR Part 63 Subpart GG (excluding those in which Table 1 (*Composition Requirements for Approved Cleaning Solvents*), or semi-aqueous cleaning solvents are used) shall empty the used cleaning solvent each time aerospace parts or assemblies, or components of a coating unit (with the exception of spray guns) are flush cleaned into an enclosed container or collection system that is kept closed when not in use or into a system with equivalent emission control. [40 CFR 63.744(d)]

5. The owner or operator of a cleaning operation subject to 40 CFR Part 63 Subpart GG shall follow the requirements for exempt cleaning operations as specified in 40 CFR 63.744(e).

D. Operating Limitations: Primer and Topcoat Application Operations

1. The owner or operator shall comply with the requirements specified in 40 CFR 63.745(c) for those coatings that are uncontrolled, and in 40 CFR 63.745(d) for those coatings that are controlled (organic HAP emissions from the operation are reduced by the use of a control device). Aerospace equipment that is no longer operational, intended for public display, and not easily capable of being moved is exempt from the requirements of this section. [40 CFR 63.745(a)]

2. The owner or operator shall conduct the handling and transfer of primers and topcoats in such a manner that minimizes spills. [40 CFR 63.745(b)]

3. *Uncontrolled Coatings—Organic HAP and VOC Content Levels*

   a. This section applies to coatings for which no control device is used to reduce organic HAP and VOC emissions (i.e., coating operations occurring outside the fuselage and non-spray application of coatings within the fuselage) as provided in 40 CFR 63.745(c).

   b. The owner or operator shall comply with the coating content requirements specified in 40 CFR 63.745, as appropriate. Emission limitations for organic HAP and VOC specified in 40 CFR 63.745(c)(1) through (6), as applicable, are included in section **VII. 40 CFR Part 63 Subpart GG** A. Emission Limitations of this permit.

   c. Compliance with the organic HAP and VOC content limits specified in 40 CFR 63.745(c)(1) through (6) shall be accomplished by using the methods specified in 40 CFR 63.745(e)(1) and (2). [40 CFR 63.745(e)]

4. *Controlled Coatings—Control System Requirements*

   a. This section applies to coatings for which a control device is used to reduce organic HAP and VOC emissions as provided in 40 CFR 63.745(d).

   b. In accordance with 40 CFR 63.6(e)(3), the owner or operator shall develop a written startup, shutdown, and malfunction plan and a program of corrective action for malfunctioning process for each RTO.

   c. Each RTO shall reduce the organic HAP and VOC emissions to the atmosphere by $\geq 81\%$, taking into account the capture and destruction or removal efficiencies, as determined using the procedures in 40 CFR 63.750(h). [40 CFR 63.745(d)]

5. *Application Equipment*. Except as provided in 40 CFR 63.745(f)(3), the owner or operator of primer, topcoat (including self-priming topcoat), or specialty coating application operation subject to 40 CFR Part 63 Subpart GG in which any of the coatings

contain organic HAP or VOC shall comply with the requirements specified in 40 CFR 63.745(f)(1) and (f)(2). [40 CFR 63.745(f)]

6. *Inorganic HAP Emissions*. Except as provided in 40 CFR 63.745(g)(4), the owner or operator of a primer, topcoat, or specialty coating application operation subject to 40 CFR Part 63 Subpart GG in which any of the coatings that are spray-applied (as defined in 40 CFR 63.742) and contain inorganic HAP, shall comply with the applicable requirements in 40 CFR 63.745(g)(1) through (3).

E. Operating Limitations: Chemical Milling Maskant Application Operations

1. The owner or operator shall comply with the requirements specified in 40 CFR 63.747(c) for those chemical milling maskants that are uncontrolled and in 40 CFR 63.747(d) for those chemical milling maskants that are controlled. [40 CFR 63.747(a)]

2. The owner or operator shall conduct the handling and transfer of chemical milling maskants to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills. [40 CFR 63.747(b)]

3. For uncontrolled chemical milling maskant operation, the owner or operator shall comply with the requirements specified in 40 CFR 63.747(c)(1) through (3). [40 CFR 63.747(c)]

4. For controlled chemical milling maskant operation, each carbon adsorber shall reduce the operation's organic HAP and VOC emissions to the atmosphere by $\geq 81\%$, taking into account capture and destruction or removal efficiencies, as determined using procedures in 40 CFR 63.750(g). [40 CFR 63.747(d)]

5. Compliance with the organic HAP and VOC content limits specified in 40 CFR 63.747(c)(1) and (c)(2) shall be accomplished by using the methods specified in 40 CFR 63.747(e)(1) and (e)(2) either by themselves or in conjunction with one another. [40 CFR 63.747(e)]

F. Operating Limitations: Handling and Storage of Waste

1. The owner or operator shall handle and store wastes that contain organic HAP from aerospace primer, topcoat, specialty coating, or chemical milling maskant operations as specified below. The requirements below do not apply to spent wastes that contain organic HAP that are subject to and handled and stored in compliance with 40 CFR Parts 262 through 268 (including the air emission control requirements in 40 CFR Part 265 Subpart CC). [40 CFR 63.748(a)]

   a. Conduct the handling and transfer of the waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills. [40 CFR 63.748(a)(1)]

   b. Store all waste that contains organic HAP in closed containers. [40 CFR 63.748(a)(2)]

G. Compliance and Performance Testing Requirements

1. The owner or operator shall comply with the requirements of 40 CFR Part 63 Subpart GG on the compliance dates specified in 40 CFR 63.749(a). In addition, the owner or operator shall comply with the compliance dates specified in 40 CFR 63.6(b) and (c) as indicated in Table 1 (*General Provisions Applicability to Subpart GG*) to 40 CFR Part 63 Subpart GG.

2. Each facility subject to 40 CFR Part 63 Subpart GG shall be considered in noncompliance if the owner or operator uses a control device, other than one specified in this subpart, that has not been approved by the Administrator, as required by 40 CFR 63.743(c).

3. *Cleaning Operations*. Each cleaning operation subject to 40 CFR Part 63 Subpart GG shall be considered in noncompliance if the owner or operator fails to institute and carry out the housekeeping measures required under 40 CFR 63.744(a). Incidental emissions resulting from the activation of pressure release vents and valves on enclosed cleaning systems are exempt from 40 CFR 63.749(c). The owner or operator shall comply with compliance requirements for cleaning operations, as applicable, as specified in 40 CFR 63.749(c)(1) through (3).

4. *Organic HAP and VOC Content Levels—Primer, Topcoat, and Specialty Coating Application Operations*

   a. *Performance Test Periods.* For uncontrolled coatings that are not averaged, each 24 hours is considered a performance test. For compliant and non-compliant coatings that are averaged together, each 30-day period is considered a performance test, unless KDHE specifies a shorter averaging period as part of an ambient ozone control program. When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When using a carbon adsorber, each rolling material balance period is considered a performance test. [40 CFR 63.749(d)(1)]

   b. *Initial Performance Tests.* If a control device is used, the owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in 40 CFR 63.745, unless a waiver is obtained under either 40 CFR 63.7(e)(2)(iv) or 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in 40 CFR 63.7 and 63.750(g) for a carbon adsorber and in 40 CFR 63.750(h) for a control device other than a carbon adsorber. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in 40 CFR 63.749(d)(2)(i) through (vi) shall be used in determining initial compliance with the provisions of 40 CFR Part 63 Subpart GG for carbon adsorbers. [40 CFR 63.749(d)(2)]

   c. The primer application operation is considered in compliance when the conditions specified in 40 CFR 63.749(d)(3)(i) through (iv), as applicable, and in 40 CFR 63.749(e) are met. Failure to meet any one of the conditions identified in these paragraphs shall constitute noncompliance. The compliance demonstration for a primer may be based on the organic HAP content or the VOC content of the

primer; demonstrating compliance with both the HAP content limit and the VOC content limit is not required. If a primer contains HAP solvents that are exempt from the definition of VOC in 40 CFR 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance. [40 CFR 63.749(d)(3)]

d. The topcoat or specialty coating application operation is considered in compliance when the conditions specified in 40 CFR 63.749(d)(4)(i) through (iv), as applicable, and in 40 CFR 63.749(e) are met. Failure to meet any of the conditions identified in these paragraphs shall constitute noncompliance. [40 CFR 63.749(d)(4)]

5. *Inorganic HAP Emissions—Primer, Topcoat, and Specialty Coating Application Operations.* For each primer, topcoat, or specialty coating application operation that emits inorganic HAP, the operation is in compliance when it is operated according to the requirements specified in 40 CFR 63.745(g)(1) through (3); and it is shut down immediately whenever the pressure drop or water flow rate is outside the limit(s) established for them and is not restarted until the pressure drop or water flow rate is returned within these limit(s), as required under 40 CFR 63.745(g)(3). [40 CFR 63.749(e)]

6. *Chemical Milling Maskant Application Operations*

a. *Performance Test Periods.* For uncontrolled chemical milling maskants that are not averaged, each 24-hour period is considered a performance test. For compliant and noncompliant chemical milling maskants that are averaged together, each 30-day period is considered a performance test, unless the permitting agency specifies a shorter period as part of an ambient ozone control program. When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When a carbon adsorber is used, each rolling material balance period is considered a performance test. [40 CFR 63.749(h)(1)]

b. *Initial Performance Tests.* If a control device is used, the owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in 40 CFR 63.747(d), unless a waiver is obtained under either 40 CFR 63.7(e)(2)(iv) or 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in 40 CFR 63.7 and 63.750(g) for carbon adsorbers and in 40 CFR 63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in 40 CFR 63.749(h)(2)(i) through (vi) shall be used in determining initial compliance with the provisions of 40 CFR Part 63 Subpart GG for carbon adsorbers. [40 CFR 63.749(h)(2)]

c. The chemical milling maskant application operation is considered in compliance when the conditions specified in 40 CFR 63.749(h)(3)(i) and (ii) are met. The compliance demonstration for a chemical milling maskant may be based on the organic HAP content or the VOC content of the chemical milling maskant; demonstrating compliance with both the HAP content limit and the VOC content limit is not required. If a chemical milling maskant contains HAP solvents that are

exempt from the definition of VOC in 40 CFR 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance. [40 CFR 63.749(h)(3)]

7. *Handling and Storage of Waste.* For those wastes subject to 40 CFR Part 63 Subpart GG, failure to comply with the requirements specified in 40 CFR 63.748 shall be considered a violation. [40 CFR 63.749(i)]

8. Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator or an applicable subpart. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.749(j)]

9. In accordance with 40 CFR 63.7(b), notification of the test date(s) shall be submitted to KDHE prior to conducting a performance test. Notification is required at least 60 days prior to testing. A performance testing protocol shall be submitted with the notification. Performance testing shall also be coordinated with the KDHE Bureau of Air, Compliance and Enforcement Section at (785) 296-0243 at least 30 days prior to the date(s) of the test.

H. Test Methods and Procedures

1. *Composition Determination.* Compliance with the hand-wipe cleaning solvent approved composition list specified in 40 CFR 63.744(b)(1) for hand-wipe cleaning solvents shall be demonstrated using data supplied by the manufacturer of the cleaning solvent. The data shall identify all components of the cleaning solvent and shall demonstrate that one of the approved composition definitions is met. [40 CFR 63.750(a)]

2. *Vapor Pressure Determination.* The composite vapor pressure of hand-wipe cleaning solvents used in a cleaning operation subject to 40 CFR Part 63 Subpart GG shall be determined as specified in 40 CFR 63.750(b)(1) through (2). [40 CFR 63.750(b)]

3. *Organic HAP Content Level Determination—Compliant Primers, Topcoats, and Specialty Coatings.* For those uncontrolled primers, topcoats, and specialty coatings complying with the primer, topcoat, or specialty coating organic HAP content limits specified in 40 CFR 63.745(c) without being averaged, the procedures in 40 CFR 63.750(c)(1) through (3) shall be used to determine the mass of organic HAP emitted per volume of coating (less water) as applied. As an alternative to the procedures in 40 CFR 63.750(c)(1) through (3), the owner or operator may use the coating manufacturer's supplied data to demonstrate that organic HAP emitted per volume of coating (less water), as applied, is less than or equal to the applicable organic HAP limit specified in 40 CFR 63.745(c). Owners and operators that use the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating may add non-HAP solvent to those coatings provided that the owner or operator also maintains records of the non-HAP solvent added to the coating. [40 CFR 63.750(c)]

4. *Organic HAP Content Level Determination—Averaged Primers, Topcoats, and Specialty Coatings.* For those uncontrolled primers, topcoats, and specialty coatings that are averaged together in order to comply with the primer, topcoat, and specialty coating organic HAP content limits specified in 40 CFR 63.745(c), the procedures specified in 40 CFR 63.750(d)(1) through (5) shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of coating (less water) as applied, unless KDHE specifies a shorter averaging period as part of an ambient ozone control program. [40 CFR 63.750(d)]

5. *VOC Content Level Determination—Compliant Primers, Topcoats, and Specialty Coatings.* For those uncontrolled primers, topcoats, and specialty coatings complying with the primer, topcoat, and specialty coating VOC content levels specified in 40 CFR 63.745(c) without being averaged, the procedures in 40 CFR 63.750(e)(1) through (3) shall be used to determine the mass of VOC emitted per volume of coating (less water and exempt solvents) as applied. As an alternative to the procedures in 40 CFR 63.750(e)(1) through (3), an owner or operator may use coating manufacturer's supplied data to demonstrate that VOC emitted per volume of coating (less water and exempt solvents), as applied, is less than or equal to the applicable VOC limit specified in 40 CFR 63.745(c). [40 CFR 63.750(e)]

6. *VOC Content Level Determination—Averaged Primers, Topcoats, and Specialty Coatings*. For those uncontrolled primers, topcoats, and specialty coatings that are averaged within their respective coating category in order to comply with the primer, topcoat, and specialty coating VOC content limits specified in 40 CFR 63.745(c)(2), (c)(4), and (c)(6), the procedures specified in 40 CFR 63.750(f)(1) through (5) shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of coating (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program. [40 CFR 63.750(f)]

7. *Overall VOC and/or Organic HAP Control Efficiency—Carbon Adsorber.* The owner or operator subject to the requirements of 40 CFR 63.745(d) or 63.747(d) shall demonstrate initial compliance with the requirements of 40 CFR Part 63 Subpart GG by following the procedures of 40 CFR 63.750(g)(1), (2), (3), (4), or (5) as applicable and 40 CFR 63.750(6), (7), and (8). When an initial compliance demonstration is required by 40 CFR Part 63 Subpart GG, the procedures in 40 CFR 63.750(g)(9) through (14) shall be used in determining initial compliance with the provisions of 40 CFR Part 63 Subpart GG. [40 CFR 63.750(g)]

8. *Overall VOC and/or Organic HAP Control Efficiency—Control Devices Other Than Carbon Adsorbers.* The owner or operator shall calculate the overall control efficiency of a control system with a control device other than a carbon adsorber using the procedure in 40 CFR 63.750(h)(1) through (3). [40 CFR 63.750(h)]

9. *Alternative Application Method—Primers, Topcoats, and Specialty Coatings.* The owner or operator seeking to use an alternative application method (as allowed in 40 CFR 63.745(f)(1)(v)) in complying with the standards for primers and topcoats shall use the procedures specified in 40 CFR 63.750(i)(2)(i) and (ii) or 40 CFR 63.750(i)(2)(iii) to determine the organic HAP and VOC emission levels of the alternative application

technique as compared to either high volume low pressure (HVLP), electrostatic spray application methods, air-assisted airless application methods, or airless application methods. [40 CFR 63.750(i)]

10. *Organic HAP Content Level Determination—Compliant Chemical Milling Maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant organic HAP content limit specified in 40 CFR 63.747(c)(1) without being averaged, the procedure in 40 CFR 63.750(k)(1) shall be used to determine the mass of organic HAP emitted per unit volume of coating (chemical milling maskant) *i* as applied (less water), H_i (lb/gal). As an alternative to the procedures in 40 CFR 63.750(k)(1), the owner or operator may use coating manufacturer's supplied data to demonstrate that organic HAP emitted per volume of coating (less water), as applied, is less than or equal to the applicable organic HAP limit specified in 40 CFR 63.747(c). Owners and operators that use the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating may add non-HAP solvent to those coatings provided that the owner or operator also maintains records of the non-HAP solvent added to the coating. [40 CFR 63.750(k)]

11. *Organic HAP Content Level Determination—Averaged Chemical Milling Maskants.* For those uncontrolled chemical milling maskants that are averaged together in order to comply with the chemical milling maskant organic HAP content level specified in 40 CFR 63.747(c)(1), the procedure specified in 40 CFR 63.750(l)(1) through (4) shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of chemical milling maskant (less water) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program. [40 CFR 63.750(l)]

12. *VOC Content Level Determination—Compliant Chemical Milling Maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant VOC content limit specified in 40 CFR 63.747(c)(2) without being averaged, the procedure specified in 40 CFR 63.750(m)(1) and (2) shall be used to determine the mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied. As an alternative to the procedures in 40 CFR 63.750m)(1) and (2), the owner or operator may use coating manufacturer's supplied data to demonstrate that VOC emitted per volume of coating (less water and exempt solvents), as applied, is less than or equal to the applicable VOC limit specified in 40 CFR 63.747(c). [40 CFR 63.750(m)]

13. *VOC Content Level Determination—Averaged Chemical Milling Maskants.* For those uncontrolled chemical milling maskants that are averaged together in order to comply with the chemical milling maskant VOC content limit specified in 40 CFR 63.747(c)(2), the procedure specified in 40 CFR 63.750(n)(1) through (4) shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program. [40 CFR 63.750(n)]

14. *Inorganic HAP Emissions—Dry Particulate Filter Certification Requirements.* Dry particulate filters used to comply with 40 CFR 63.745(g)(2) or 63.746(b)(4) must be certified by the filter manufacturer or distributor, paint/depainting booth supplier, and/or

the facility owner or operator using Method 319 in Appendix A of 40 CFR Part 63, to meet or exceed the efficiency data points found in Tables 2 and 3, or 4 and 5 of 40 CFR 63.745 for existing or new sources, respectively. [40 CFR 63.750(o)]

I. Monitoring Requirements

1. The owner or operator must demonstrate that the uncontrolled primer application operation's organic HAP content level limits are being met using the methods required by 40 CFR 63.750(c) or (d), and the VOC content level limits are being met using the methods required by 40 CFR 63.750(e) or (f). [40 CFR 63.749(d)(3)(i)]

2. The owner or operator must demonstrate that the uncontrolled topcoat or specialty coating application operation's organic HAP content level limits are being met using the methods required by 40 CFR 63.750(c) or (d), and the VOC content level limits are being met using the methods required by 40 CFR 63.750(e) or (f). [40 CFR 63.749(d)(4)(i)]

3. The owner or operator using an enclosed spray gun cleaner under 40 CFR 63.744(c)(1) shall visually inspect the seals and all other potential sources of leaks associated with each enclosed gun spray cleaner system at least once per month. Each inspection shall occur while the system is in operation. [40 CFR 63.751(a)]

4. The owner or operator must demonstrate initial compliance with the requirements of 40 CFR 63.745(d) and 40 CFR 63.747(d). The owner or operator using a carbon adsorber to comply with the requirements of 40 CFR Part 63 Subpart GG shall comply with the monitoring requirements specified in 40 CFR 63.751(b)(1), (3), (4), (5), (6) and (7). The owner or operator using a control device other than a carbon adsorber to comply with the requirements of this subpart shall comply with the monitoring requirements specified in 40 CFR 63.751(b)(8), (9) and (11). [40 CFR 63.751(b)]

5. The owner or operator using a dry particulate filter system to meet the requirements of §63.745(g)(2) shall, while primer, topcoat and specialty coating application operations are occurring, continuously monitor the pressure drop across the system and read and record the pressure drop once per shift following the recordkeeping requirements of 40 CFR 63.752(d), or install an interlock system as specified in 40 CFR 63.745(g)(2)(iv)(C). [40 CFR 63.751(c)]

6. Until permission to use an alternative monitoring method has been granted by the Administrator under 40 CFR 63.751(e), the owner or operator of an affected source shall remain subject to the requirements of 40 CFR 63.751. [40 CFR 63.751(e)]

7. The data may be recorded in reduced or nonreduced form (e.g., parts per million (ppm) pollutant and % O_2 or nanograms per Joule (ng/J) of pollutant). All emission data shall be converted into units specified in 40 CFR Part 63 Subpart GG for reporting purposes. After conversion into units specified in 40 CFR Part 63 Subpart GG, the data may be rounded to the same number of significant digits as used in 40 CFR Part 63 Subpart GG to specify the emission limit (e.g., rounded to the nearest 1% overall reduction

efficiency). [40 CFR 63.751(f)]

J. Recordkeeping and Reporting Requirements

1. The owner or operator shall fulfill all recordkeeping requirements specified in 40 CFR 63.10(a), (b), (d), and (f), except 40 CFR 63.10(b)(2)(i), (iv) and (v). [40 CFR 63.752(a)]

2. The owner or operator must also record and maintain according to 40 CFR 63.10(b)(1) the information specified in 40 CFR 63.752(a)(1) through (3). [40 CFR 63.752(a)]

3. The owner or operator shall record the information specified in 40 CFR 63.752(a) through (f), as appropriate.

4. The owner or operator shall comply with the applicable reporting requirements specified in 40 CFR 63.753(a) through (f), as appropriate.

K. Applicability of Federal Rule General Provisions

The owner or operator is required to follow the applicable requirements of 40 CFR Part 63 Subpart A, *General Provisions*, except as specified in 40 CFR 63.743(a) and outlined in Table 1 (*General Provisions Applicability to Subpart GG*) of 40 CFR Part 63 Subpart GG. [40 CFR 63.741(b)]

VIII. 40 CFR Part 63 Subpart DDDDD (MACT 5D)

A. Emission Limitations, Work Practice Standards, and Operating Limitations

1. The owner or operator shall conduct a tune-up of the IPB4 Spoven *oven* every two (2) years as specified in 40 CFR 63.7540(a)(11). [40 CFR 63.7500(e); 40 CFR 63.7540(a)(11), and Table 3 to 40 CFR Part 63 Subpart DDDDD]

2. The owner or operator shall conduct a tune-up of the two natural gas-fired sludge dryers every five (5) years as specified in 40 CFR 63.7540(a)(12). [40 CFR 63.7500(e); 40 CFR 63.7540(a)(12), and Table 3 to this subpart]

3. The owner or operator shall operate and maintain the units in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.7500(a)(3)]

B. Compliance Requirements

1. The owner or operator shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD upon startup dates of the natural gas-fired sludge dryers and IPB4 Spoven *oven*. [40 CFR 63.7495(a)]

2. For the IPB4 Spoven *oven*, the first biennial tune-up specified in 40 CFR 63.7540(a)(11) must be completed no later than 25 months after the initial startup. Each succeeding biennial tune-up must be conducted no more than 25 months after the previous tune-up. [40 CFR 63.7515(d); 40 CFR 63.7540(a)(11)]

3. For the sludge dryers, the first 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be completed no later than 61 months after the initial startup. Each succeeding 5-year tune-up must be conducted no more than 61 months after the previous tune-up. [40 CFR 63.7515(d); 40 CFR 63.7540(a)(12)]

4. The owner or operator must demonstrate continuous compliance with work practice standards in Table 3 to this subpart according to the methods specified in 40 CFR 63.7540(a)(11) and (12). [40 CFR 63.7540(a)]

C. Notification Requirements

1. The owner or operator shall submit a notification of intent of construction of the affected source as required by 40 CFR 63.9(b)(4)(i) and 40 CFR 63.7545(c).

2. The owner or operator shall submit the Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR 63.9(b)(4)(v); 40 CFR 63.7545(c)]

D. Recordkeeping Requirements

1. The owner or operator shall keep and maintain applicable records, including but not limited to records of each submitted notification and report including all documents supporting any Initial Notification or Notification of Compliance Status or compliance reports as specified 40 CFR 63.7555(a).

2. The owner or operator shall keep the records in the form and for the length of time specified in 40 CFR 63.10(b)(1) and 40 CFR 63.7560.

E. Reporting Requirements

1. The owner or operator shall submit an initial semi-annual compliance report, covering the period beginning on the compliance date specified for each process heater in 40 CFR 63.7495 and ending on June 30 or December 31, whichever date is first that occurs at least 180 days after the compliance date. The report shall be submitted electronically to the EPA via the Compliance and Emissions Data Recording Interface (CEDRI) no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each process heater in 40 CFR 63.7495. [40 CFR 63.7550(b)(1) and (2)]

2. The owner or operator shall submit biennial and 5-year compliance reports to the EPA via CEDRI as required by 40 CFR 63.7550(h)(3) by January 31st after a two-year and 5-year period, respectively, that follows the year in which the initial compliance report is submitted unless a different schedule is approved by EPA and/or KDHE under 40 CFR 63.10(a). The compliance report must cover a 2-year period for the IPB4 Spoven *oven* and a 5-year period for the sludge dryers from January 1st to December 31st. [40 CFR 63.7550(b)(3) and (4)]

F. Applicability of Federal Rule General Provisions

The owner or operator is required to follow the applicable requirements of 40 CFR Part 63 Subpart A, *General Provisions*, as specified in 40 CFR 63.7565 and outlined in Table 10 of 40 CFR 63 Subpart DDDDD.

IX. Permit General Provisions

A. This document shall become void if the construction or modification has not commenced within 18 months of the effective date, or if the construction or modification is interrupted for a period of 18 months or longer. [K.A.R 28-19-301(c)]

B. A construction permit or approval must be issued by KDHE prior to commencing any construction or modification of equipment or processes which results in an increase of potential-to-emit equal to or greater than the thresholds specified by K.A.R. 28-19-300.

C. Upon presentation of credentials and other documents as may be required by law, representatives of KDHE (including authorized contractors of KDHE) shall be allowed to:

1. enter upon the premises where a regulated facility or activity is located or conducted or where records must be kept under conditions of this document;

2. have access to and copy, at reasonable times, any records that must be kept under conditions of this document;

3. inspect at reasonable times, any facilities, equipment (including monitoring and control equipment) practices or operations regulated or required under this document; and

4. sample or monitor, at reasonable times, for the purposes of assuring compliance with this document or as otherwise authorized by the Secretary of KDHE, any substances or parameters at any location.

D. The emission unit or stationary source which is the subject of this document shall be operated in compliance with all applicable requirements of the Kansas Air Quality Act and the Federal Clean Air Act.

E. This document is subject to periodic review and amendment as deemed necessary to fulfill the intent and purpose of the Kansas Air Quality Statutes and Regulations.

F. This document does not relieve the owner or operator of the obligation to obtain any approvals, permits, licenses or documents of sanction which may be required by other federal, state or local government agencies.

Permit Writer

_____ _____

Josephine M. Boac, Ph.D. Date Signed
Engineering Associate
Air Permitting Section

JMB
c: Randy Owen, WDEH
C-13362