

AEROSPACE MANUFACTURING AND REWORK INDUSTRY INFORMATION REQUEST QUESTIONNAIRE

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

OMB Control No. 2060-NEW

Approval Expires XX/XX/XXXX

The public reporting and recordkeeping burden for this collection of information is estimated to average 228 hours per response. Send comments on the Agency's need for the information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed survey to this address.

This information request is to be completed for operations that comprise the Aerospace Manufacturing and Rework source category at your facility. The Aerospace Manufacturing and Rework source category includes any facility engaged, either in whole or in part, in the manufacture or rework of commercial, civil, or military aerospace vehicles or components. Aerospace vehicle component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

The North American Industrial Classification System (NAICS) codes that describe facilities that may manufacture or rework aerospace vehicle, components, or parts are listed in the table below. This table is not meant to be exhaustive; facilities classified under other NAICS codes may also be required to complete this information request if they perform activities as defined above.

The reporting year for this information request is 2008. If you cannot provide 2008 data, you must contact Kim Teal of the U.S. EPA at 919-541-5580 or teal.kim@epa.gov prior to completing this information request to explain why 2008 data are not available and obtain permission to submit data from another year.

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North American Industrial Classification System Codes for the Aerospace Manufacturing and Rework Industry

NAICS Code	Description
336411	Aircraft Manufacturing
336412	Aircraft Engine and Engine Parts Manufacturing
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing
336414	Guided Missile and Space Vehicle Manufacturing
336415	Guided Missile and Space Vehicle Propulsion Units and Parts
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment
481111	Scheduled Passenger Air Transportation
481112	Scheduled Freight Air Transportation
481211	Nonscheduled Chartered Passenger Air Transportation
481212	Nonscheduled Chartered Freight Air Transportation
481219	Other Nonscheduled Air Transportation

You must complete this information request for **ALL** manufacturing operations that constitute aerospace manufacturing and rework at your facility, regardless of whether the operations are presently regulated under the National Emission Standards for Hazardous Air Pollutants for Aerospace Manufacturing and Rework Facilities (aerospace NESHAP). For example, information must be submitted for the following operations even though they are not regulated by the aerospace NESHAP: chemical milling, metal finishing, electrodeposition, composites processing, manufacture of aircraft transparencies, and wastewater operations, among others. Additionally, you must submit information for operations that may be exempt from regulation under the aerospace NESHAP including, but not limited to, low volume usage coatings, activities associated with the manufacture or rework of space vehicles, certain waterborne coatings, certain cleaning operations, certain primer and topcoat operations, specialty coatings, and certain depainting operations. Finally, you must submit information where control requirements are not specified for operations under the aerospace NESHAP, including the use of specialty coatings, adhesives, adhesive bonding primers, or sealants.

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However, this information request does not apply to aerospace manufacturing or rework operations that are regulated under NESHAP other than the aerospace NESHAP, with the exception of the Halogenated Solvent NESHAP. For example, you should not include in your response information regarding chromium electroplating operations regulated under the chromium electroplating NESHAP.

**AEROSPACE MANUFACTURING AND REWORK INDUSTRY
INFORMATION REQUEST QUESTIONNAIRE**

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

**FORM A-2
FACILITY INFORMATION**

Complete this for for this specific facility.

I. Facility Information

1. Facility Name and Location

Facility Physical Address

Street

City

State

Zip Code

County

Facility Mailing Address

Address 1

Address 2

City

State

Zip Code

Facility Coordinates. Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees, six decimal places)

Longitude (decimal degrees, six decimal places)

Specific location represented (e.g., front door of main building, centroid of property, etc.)

2. Does this facility manufacture, repair, rework, or otherwise modify parts or assemblies for the aerospace industry? If you answer "No" to this question, please provide an explanation in the Comments section of what activities are carried out at this facility and why you should not be considered an aerospace manufacturing or rework facility. If you answer "No" then you do not have to complete any other parts of this information request other than Forms A-1 and A-2.

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3. If "Yes," what NAICS codes describe your aerospace operations? NAICS codes may be found at <http://www.census.gov/eos/www/naics/>. Do not enter Standard Industrial Classification (SIC) codes.

Primary NAICS Code
Other NAICS Code
Other NAICS Code

4. Number of employees (full-time and part-time combined)
Total number of employees at this facility

Total number of employees performing aerospace operations

5. Do you manufacture or rework aerospace components or parts for the following market segments?

Original equipment manufacturing - commercial
Original equipment manufacturing - military
Rework - commercial
Rework - military

6. Operation schedule
hrs/day
days/yr

II. Technical Contact

The technical contact should be able to answer inquiries from EPA concerning any information provided in your response.

Name
Technical Contact Title

Telephone
Facsimile (Fax)
Email

III. Other

1. Is the facility a major source of HAP? A major source of HAP is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant.

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2. If "No", did the facility take a federally enforceable permit limit of its potential HAP emissions to avoid classification as a major source? If you did take permit limits, specify those limits in the Comments section.

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3. Does the facility manufacture other products in addition to aerospace products?

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4. If "Yes", list the other products manufactured at the facility.

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5. Multiplier to scale up average hourly emissions to maximum hourly emissions (see instructions)

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6. Comments (include description of how the maximum hourly emissions multiplier listed in #5 was determined)

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**FORM B-1
SPRAY BOOTH INFORMATION**

Booth 1

Booth 2

Booth 3

I. Booth Description and Location

1. Identification No.
2. Booth Type
3. *Booth Location*

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

- Latitude (decimal degrees to at least six decimal places)
- Longitude (decimal degrees to at least six decimal places)

4. *Dimensions of Building in Which Booth is Located (NOT the dimensions of the booth itself)*

- Length (ft)
- Width (ft)
- Height (ft)

5. Airflow Direction in Booth
6. Average Daily Operating Hours

II. Particulate Filters

1. Type of Filter System
2. Filter Control Efficiency (percent)
3. *How was the filter control efficiency determined (indicate yes where appropriate)*

- Testing (specify method)
- Filter Manufacturer's Specifications
- Engineering Estimate

III. Exhaust Stack

1. Exhaust Stack Location

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

- Latitude (decimal degrees to at least six decimal places)
- Longitude (decimal degrees to at least six decimal places)
- 2. Exhaust Stack Diameter (ft)
- 3. Exhaust Stack Height (ft)
- 4. Exhaust Stream Temperature (°F)
- 5. Exhaust Stream Flow Rate (acfm)

IV. Control Device for Organic Emissions

Complete this section if this spray booth is vented to a control device that reduces the amount of organic emissions.

- 1. Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)
- 2. Type of Control Device
- 3. Capture Efficiency
- 4. How was capture efficiency determined?
 - Testing (specify method)
 - Filter Manufacturer's Specifications
 - Engineering Estimate

V. Comments

Use this section to explain any of the above responses or to provide additional information

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Booth 4

Booth 5

Booth 6

Booth 7

Booth 8

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Booth 9

Booth 10

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To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

HAP Name			
CAS No.			
HAP Mass Fraction (lb HAP/lb coating)			

HAP Name			
CAS No.			
HAP Mass Fraction (lb HAP/lb coating)			

HAP Name			
CAS No.			
HAP Mass Fraction (lb HAP/lb coating)			

HAP Name			
CAS No.			
HAP Mass Fraction (lb HAP/lb coating)			

HAP Name			
CAS No.			
HAP Mass Fraction (lb HAP/lb coating)			

III. Coating Usage by Spray Booth

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

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Portion of Annual Coating Usage in this Booth (percent)

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Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Application of Coating Outside of a Spray Booth - Application Method
Portion of Annual Coating Usage Applied Outside of a Booth (percent)

IV. Comments

Use this section to explain any of the above responses or to provide additional information

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Coating 4

Coating 5

Coating 6

Coating 7

Coating 8

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Coating 9

Coating 10

Coating 11

Coating 12

Coating 13

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Coating 14

Coating 15

Coating 16

Coating 17

Coating 18

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Coating 19

Coating 20

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**FORM C-2
COATINGS**

Use Form C-1 for entering coating information in English units (pounds, gallons, etc.). Use Form C-2 for entering coating information in metric units (kilograms, liters, etc.). DO NOT complete both Form C-1 and Form C-2.

This form has space for entering data for 20 coatings. If you are providing data for more than 20 coatings, please add additional columns as necessary.

Coating 1

Coating 2

Coating 3

I. Coating Information

1. Identification No.
2. Manufacturer
3. Product Name
4. Is this coating regulated under the Aerospace Manufacturing and Rework Operations National Emission Standards for Hazardous Air Pollutants (40 CFR 63, subpart GG)?
5. If "Yes," what is the coating type?
6. If "No," what is the specialty coating type?

II. Coating Usage and Physical Properties

1. Total Volume Used for the Reporting Year for all coating operations (liters)

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2. **As-Applied** Coating Physical Properties

Coating Density (kg coating/L coating)

Total Organic HAP Mass Fraction (kg HAP/kg coating)

Total Inorganic HAP Mass Fraction (kg HAP/kg coating)

Solids Mass Fraction (kg solids/kg coating)

Solids Volume Fraction (L solids/L coating)

3. *Speciated HAP (Organic and Inorganic) Content*

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

III. Coating Usage by Spray Booth

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Application of Coating Outside of a Spray Booth - Application Method

Portion of Annual Coating Usage Applied Outside of a Booth (percent)

IV. Comments

Use this section to explain any of the above responses or to provide additional information

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Coating 4

Coating 5

Coating 6

Coating 7

Coating 8

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Coating 9

Coating 10

Coating 11

Coating 12

Coating 13

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Coating 14

Coating 15

Coating 16

Coating 17

Coating 18

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Coating 19

Coating 20

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FORM D-1

CHEMICAL MILLING AND METAL FINISHING OPERATIONS

Complete this form for each processing tank that contains HAP in chemical milling and metal finishing operations. If your facility does not have chemical milling or metal finishing operations, state that in the Comments section.

Tank 1

Tank 2

Tank 3

I. Processing Tank Description and Location

1. Tank Identification No.

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2. Location of Tank

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees to at least six decimal places)

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Longitude (decimal degrees to at least six decimal places)

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3. Dimensions of Building in Which Tank is Located

Length (ft)

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Width (ft)

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Height (ft)

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4. Purpose of this Tank

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5. Average Daily Hours of Operation

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Average Days per Year of Operation

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II. HAP Emissions and Controls

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

1. HAP Emissions

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

2. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

3. Type of Control Device

4. Capture Efficiency

5. How was capture efficiency determined?

Testing (specify method)

Manufacturer's Specifications

Engineering Estimate

III. Work Practices

Describe any work practices that you use to reduce emissions from this tank

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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Tank 4

Tank 5

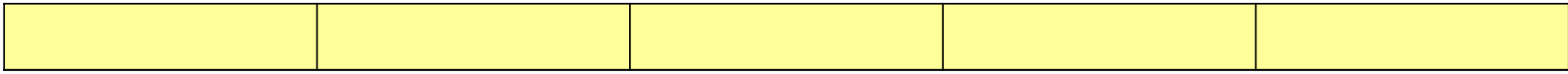
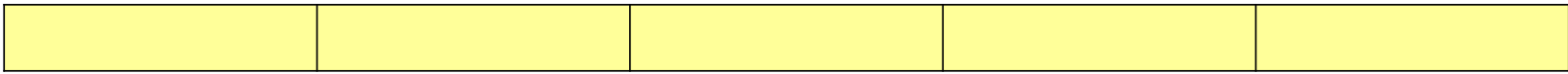
Tank 6

Tank 7

Tank 8

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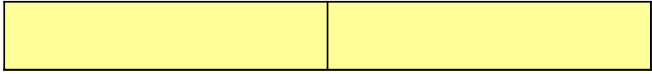
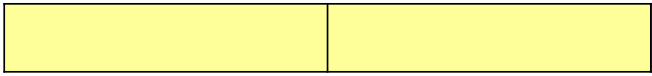


Tank 9

Tank 10

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FORM E-1

BLAST DEPAINTING/CLEANING OPERATIONS

Complete this form for each depainting or cleaning operation that utilizes a blasting method (plastic beads, metal shot, sodium bicarbonate, carbon dioxide, etc.) to depaint or clean aerospace components. If your facility does not have blast depainting/cleaning operations, state that in the comments section.

	Operation 1	Operation 2	Operation 3
1. Process Identification No.			

2. Location of Blasting Operation

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees to at least six decimal places)			
Longitude (decimal degrees to at least six decimal places)			

3. Identify where blasting occurs (e.g., outside, in a partially enclosed booth, in a fully enclosed booth, etc.)

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4. Identify the type of blasting media used (be specific)

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5. Dimensions of Building in Which Operation is Located

Length (ft)

Width (ft)

Height (ft)

6. Purpose of this Blasting Operation

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7. Average Daily Hours of Operation

Average Days per Year of Operation

II. HAP Emissions and Controls

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

1. HAP Emissions

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

2. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

3. Type of Control Device

4. Capture Efficiency

5. How was capture efficiency determined?

Testing (specify method)

Manufacturer's Specifications

Engineering Estimate

III. Work Practices

Describe any work practices that you use to reduce emissions from this process

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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FORM E-2
SOLVENT DEPAINTING OPERATIONS

Complete this form for each depainting operation that utilizes solvent (liquid) materials to repaint aerospace components. If your facility does not have any solvent depainting operations, state that in the Comments section.

	Operation 1	Operation 2	Operation 3
1. Process Identification No.			
2. Location of Depainting Operation			
<p><i>Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php</i></p>			
Latitude (decimal degrees to at least six decimal places)			
Longitude (decimal degrees to at least six decimal places)			
3. Dimensions of Building in Which Operation is Located			
Length (ft)			
Width (ft)			
Height (ft)			
4. Purpose of this Depainting Operation			
5. Average Daily Hours of Operation			
Average Days per Year of Operation			

II. HAP Emissions and Controls

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

1. HAP Emissions

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

2. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

3. Type of Control Device

4. Capture Efficiency

5. How was capture efficiency determined?

Testing (specify method)

Manufacturer's Specifications

Engineering Estimate

III. Work Practices

Describe any work practices that you use to reduce emissions from this process

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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FORM E-3

SOLVENT CLEANING OPERATIONS - POINT SOURCES AND FUGITIVE SOURCES

Complete this form for each cleaning operation that utilizes solvent (liquid) materials to clean aerospace components. If your facility does not have any solvent cleaning operations, state that in the Comments section. Do not report solvent cleaning operations that are subject to the Halogenated Solvent Cleaning NESHAP (40 CFR part 63, subpart T) on this form. Use Form E-4 to report halogenated solvent cleaning covered under subpart T. **Please see the instructions for further information before completing Forms E-3 and E-4.**

PART A - POINT SOURCES. Complete this section for each cleaning operation that occurs within an enclosure that is vented through a stack outside of the building

I. General Information

1. Process Identification No.

2. Exhaust Stack Location

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees to at least six decimal places)
 Longitude (decimal degrees to at least six decimal places)

3. Exhaust Stack Diameter (ft)

4. Exhaust Stack Height (ft)

5. Exhaust Stream Temperature (°F)

6. Exhaust Stream Flow Rate (acfm)

Operation 1	Operation 2	Operation 3

7. Dimensions of Building in Which Operation is Located

Length (ft)

Width (ft)

Height (ft)

8. Purpose of this Cleaning Operation

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9. Average Daily Hours of Operation

Average Days per Year of Operation

II. HAP Emissions and Controls

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

1. HAP Emissions

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name

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CAS No.			
Emissions (lb/yr)			

HAP Name			
CAS No.			
Emissions (lb/yr)			

2. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

3. Type of Control Device

4. Capture Efficiency

5. *How was capture efficiency determined?*

Testing (specify method)

Manufacturer's Specifications

Engineering Estimate

III. Work Practices

Describe any work practices that you use to reduce emissions from this process

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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B. FUGITIVE SOURCES - Complete this section for cleaning operations that are not vented outside of the building. Combine all fugitive solvent cleaning operations in a building in a single entry.

I. General Information

1. Building Identification

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2. *Building Location (center of building)*

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees to at least six decimal places)

Longitude (decimal degrees to at least six decimal places)

3. Dimensions of Building

Length (ft)

Width (ft)

Height (ft)

4. Purpose of this Cleaning Operation

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5. Average Daily Hours of Operation

Average Days per Year of Operation

II. HAP Emissions

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

1. HAP Emissions

HAP Name

CAS No.

Emissions (lb/yr)

HAP Name
CAS No.
Emissions (lb/yr)

HAP Name
CAS No.
Emissions (lb/yr)

HAP Name
CAS No.
Emissions (lb/yr)

HAP Name
CAS No.
Emissions (lb/yr)

III. Work Practices

Describe any work practices that you use to reduce emissions from this process

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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**FORM E-4
SOLVENT CLEANING OPERATIONS**

Complete this form for each cleaning operation that is subject to the Halogenated Solvent Cleaning NESHAP (40 CFR part 63, subpart T) and NOT subject to the aerospace manufacturing and rework operations NESHAP. If your facility does not have any cleaning operations subject to subpart T, state that in the Comments section. Do not report solvent cleaning operations that are subject to the Aerospace Manufacturing and Rework Operations NESHAP on this form. Use Form E-3 to report solvent cleaning covered under the aerospace NESHAP. **Please see the instructions for further information before completing Forms E-3 and E-4.**

	Operation 1	Operation 2	Operation 3
1. Process Identification No.			

2. Location of Cleaning Operation

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees to at least six decimal places)			
Longitude (decimal degrees to at least six decimal places)			

3. Dimensions of Building in Which Operation is Located

Length (ft)			
Width (ft)			
Height (ft)			

4. Purpose of this Cleaning Operation

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5. Average Daily Hours of Operation
Average Days per Year of Operation

II. HAP Emissions and Controls

1. HAP Emissions

Methylene Chloride

CAS No. 75-09-02

Emissions (lb/yr)

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Perchloroethylene

CAS No. 127-18-4

Emissions (lb/yr)

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Trichloroethylene

CAS No. 79-01-6

Emissions (lb/yr)

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1,1,1-Trichloroethane

CAS No. 71-55-6

Emissions (lb/yr)

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Carbon Tetrachloride

CAS No. 56-23-5

Emissions (lb/yr)

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Chloroform

CAS No. 67-66-3

Emissions (lb/yr)

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2. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

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3. Type of Control Device

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4. Capture Efficiency

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5. How was capture efficiency determined?

Testing (specify method)

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Manufacturer's Specifications

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Engineering Estimate

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III. Work Practices

Describe any work practices that you use to reduce emissions from this process

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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FORM F-1

Composite Processing Operations

Use Form F-1 for entering resin information in English units (pounds, gallons, etc.). Use Form F-2 for entering resin information in metric units (kilograms, liters, etc.). DO NOT complete both Form F-1 and Form F-2.

This form has space for entering data for 10 resins. If you are providing information on more than 10 resins, please add additional columns. If your facility does not have any composite processing operations, state that in the Comments section.

I. Resin Information

- 1. Identification No.
- 2. Manufacturer
- 3. Product Name

Resin 1

Resin 2

Resin 3

Resin 1	Resin 2	Resin 3

II. Resin Usage and Physical Properties

- 1. Total Volume Used for the Reporting Year (gals)
- 2. *As-Applied Resin Physical Properties*
 - Resin Density (lb coating/gal coating)
 - Total Organic HAP Mass Fraction (lb HAP/lb coating)
 - Total Inorganic HAP Mass Fraction (lb HAP/lb coating)
 - Solids Mass Fraction (lb solids/lb coating)
 - Solids Volume Fraction (gal solids/gal coating)
- 3. *Speciated HAP (Organic and Inorganic) Content*

Resin 1	Resin 2	Resin 3

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

HAP Name
CAS No.
HAP Mass Fraction (lb HAP/lb coating)

HAP Name
CAS No.
HAP Mass Fraction (lb HAP/lb coating)

HAP Name
CAS No.
HAP Mass Fraction (lb HAP/lb coating)

HAP Name
CAS No.
HAP Mass Fraction (lb HAP/lb coating)

HAP Name
CAS No.
HAP Mass Fraction (lb HAP/lb coating)

4. Estimated Percent of Organic HAP Emitted

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III. Resin Usage by Spray Booth

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Spray Booth Identification No. (from Form B-1)
Portion of Annual Coating Usage in this Booth (percent)

Application of Coating Outside of a Spray Booth - Application Method
Portion of Annual Coating Usage Applied Outside of a Booth (percent)

IV. Control Device for Organic Emissions

1. Identification No. (must correspond to ID No. of one of the control devices for which a J Form was completed)

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2. Type of Control Device

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3. Capture Efficiency

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4. *How was capture efficiency determined?*

Testing (specify method)

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Manufacturer's Specifications

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Engineering Estimate

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V. Comments

Use this section to explain any of the above responses or to provide additional information

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Resin 4

Resin 5

Resin 6

Resin 7

Resin 8

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Resin 9

Resin 10

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FORM F-2

Composite Processing Operations

Use Form F-1 for entering resin information in English units (pounds, gallons, etc.). Use Form F-2 for entering resin information in metric units (kilograms, liters, etc.). DO NOT complete both Form F-1 and Form F-2. This form has space for entering data for 10 resins. If you are providing information on more than 10 resins, please add additional columns.

This form has space for entering data for 10 resins. If you are providing information on more than 10 resins, please add additional columns. If your facility does not have any composite processing operations, state that in the Comments section.

Resin 1

Resin 2

Resin 3

I. Resin Information

- 1. Identification No.
- 2. Manufacturer
- 3. Product Name

Resin 1	Resin 2	Resin 3

II. Resin Usage and Physical Properties

- 1. Total Volume Used for the Reporting Year (liters)
- 2. *As-Applied Resin Physical Properties*
 - Resin Density (kg coating/L coating)
 - Total Organic HAP Mass Fraction (kg HAP/kg coating)
 - Total Inorganic HAP Mass Fraction (kg HAP/kg coating)
 - Solids Mass Fraction (kg solids/kg coating)
 - Solids Volume Fraction (L solids/L coating)

Resin 1	Resin 2	Resin 3

- 3. *Speciated HAP (Organic and Inorganic) Content*

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

HAP Name			
HAP Mass Fraction (kg HAP/kg coating)			

4. Estimated Percent of Organic HAP Emitted			
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III. Resin Usage by Spray Booth

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Spray Booth Identification No. (from Form B-1)			
Portion of Annual Coating Usage in this Booth (percent)			

Application of Coating Outside of a Spray Booth - Application Method

Portion of Annual Coating Usage Applied Outside of a Booth (percent)

IV. Control Device for Organic Emissions

1. Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

2. Type of Control Device

3. Capture Efficiency

4. *How was capture efficiency determined?*

Testing (specify method)

Manufacturer's Specifications

Engineering Estimate

V. Comments

Use this section to explain any of the above responses or to provide additional information

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Resin 4

Resin 5

Resin 6

Resin 7

Resin 8

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Resin 9

Resin 10

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**FORM G-1
STORAGE TANKS**

Use this form for each stationary storage tank that contains HAP. Do not report tanks that contain fuel for engines, boilers, or other combustion device. If your facility does not have any storage tanks that contain HAP, state that in the Comments section.

I. Storage Tank Description and Location

Tank 1

Tank 2

Tank 3

- 1. Identification No.
- 2. Tank Type

- 3. Tank Location

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

- Latitude (decimal degrees to at least six decimal places)
- Longitude (decimal degrees to at least six decimal places)

- 4. Dimensions of Tank
 - Diameter (ft)
 - Height (ft)

- 5. Liquid Stored in Tank

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- 6. Dimensions of Building in Which Tank is Located
 - Length (ft)
 - Width (ft)
 - Height (ft)

II. Throughput and Emissions

Emissions may be calculated using EPA's TANKS Emissions Estimation Software. If you use TANKS, you must provide all input values and model outputs.

1. Annual Throughput (gals)

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2. HAP Emissions

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

HAP Component in Liquid Stored

Mass Fraction of HAP Component in Liquid (lb HAP/lb liquid)

Emissions (lb/yr)

Emission Estimation Method

HAP Component in Liquid Stored

Mass Fraction of HAP Component in Liquid (lb HAP/lb liquid)

Emissions (lb/yr)

Emission Estimation Method

HAP Component in Liquid Stored

Mass Fraction of HAP Component in Liquid (lb HAP/lb liquid)

Emissions (lb/yr)

Emission Estimation Method

HAP Component in Liquid Stored

Mass Fraction of HAP Component in Liquid (lb HAP/lb liquid)

Emissions (lb/yr)

Emission Estimation Method

HAP Component in Liquid Stored

Mass Fraction of HAP Component in Liquid (lb HAP/lb liquid)

Emissions (lb/yr)

Emission Estimation Method

3. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

4. Type of Control Device

5. Capture Efficiency

6. How was capture efficiency determined?

Testing (specify method)

Manufacturer's Specifications

Engineering Estimate

III. Work Practices

Describe any work practices that you use to reduce emissions from this tank

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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Tank 4

Tank 5

Tank 6

Tank 7

Tank 8

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Tank 9

Tank 10

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FORM H-1

WASTEWATER TREATMENT OPERATIONS

Use this form to report wastewater treatment operations that treat or use HAP-containing materials. If your facility does not have any wastewater treatment operations that treat or use HAP-containing materials, then state that in the Comments section.

Tank/Process 1

Tank/Process 2

Tank/Process 3

I. Processing Tank/Operation Description and Location

1. Tank/Operation Identification No.

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2. Location of Tank/Operation

Latitude and longitude must be reported in decimal degrees to six decimal places. For example, EPA Headquarters at 1200 Pennsylvania Ave, NW in Washington, D.C. is 38.894907 latitude and -77.028625 longitude at the front door. You may use the Satellite function of Google Maps to identify latitude/longitude information at <http://www.gorissen.info/Pierre/maps/googleMapLocationv3.php>

Latitude (decimal degrees to at least six decimal places)

Longitude (decimal degrees to at least six decimal places)

3. Dimensions of Building in Which Tank/Operation is Located

Length (ft)

Width (ft)

Height (ft)

4. Purpose of this Tank/Operation

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5. Average Daily Hours of Operation

Average Days per Year of Operation

II. HAP Emissions and Controls

To avoid double counting, do not report the same HAP emissions under different CAS numbers or as different compounds. For example, do not report both "total chromium" and "hexavalent chromium" for a single chromium compound contained in a coating. The correct reporting method, particularly for chromium compounds, glycol ethers, and polycyclic organic matter, is to report the specific compound (e.g., strontium chromate, ethylene glycol dibutyl ether) rather than the general class of HAP (e.g., chromium compounds, glycol ethers).

1. HAP Emissions

HAP Name
 CAS No.
 Emissions (lb/yr)
 Fugitive or Stack Emissions

HAP Name
 CAS No.
 Emissions (lb/yr)
 Fugitive or Stack Emissions

HAP Name
 CAS No.
 Emissions (lb/yr)
 Fugitive or Stack Emissions

HAP Name
 CAS No.
 Emissions (lb/yr)
 Fugitive or Stack Emissions

HAP Name
 CAS No.
 Emissions (lb/yr)
 Fugitive or Stack Emissions

2. Control Device Identification No. (must correspond to ID No. of one of the control devices for which a Form J was completed)

3. Type of Control Device

4. Capture Efficiency

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5. *How was capture efficiency determined?*

Testing (specify method)

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Manufacturer's Specifications

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Engineering Estimate

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III. Work Practices

Describe any work practices that you use to reduce emissions from this tank/operation

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IV. Comments

Use this section to explain any of the above responses or to provide additional information

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Tank/Process 4

Tank/Process 5

Tank/Process 6

Tank/Process 7

Tank/Process 8

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Tank/Process 9

Tank/Process 10

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FORM I-1

STARTUPS AND SHUTDOWNS

1. For each startup and shutdown event during the reporting year that resulted in excess HAP emissions AND that caused a NESHAP emission limit to be exceeded or caused a deviation of any requirement of the NESHAP, please provide the following information requested in A. through F. Using the definitions provided below, indicate whether the event was a startup or shutdown.

Startup: the setting in operation of an affected source or portion of an affected source for any purpose.

Shutdown: the cessation of operation of an affected source or portion of an affected source for any purpose.

- A. A description of each event, including identification of the emissions source or sources associated with the event.
- B. What standard was exceeded;
- C. The duration of each event;
- D. The actions taken to minimize emissions during the event, including the use of any backup control systems;
- E. Estimates or measurements, if any, of emissions during the event. If you did not have the ability to quantify emissions during the event, please explain why.

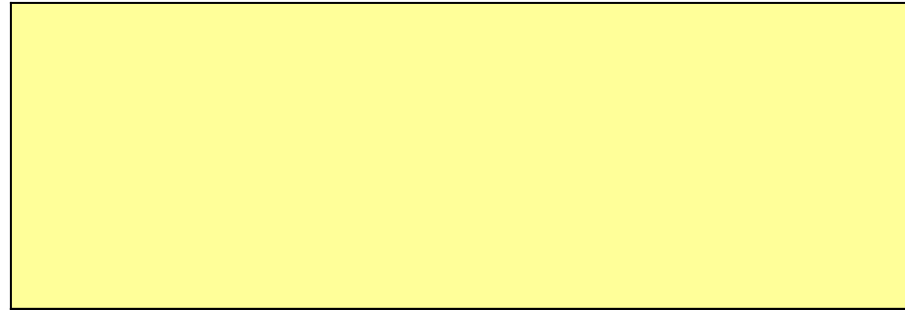
2. Are there any types of startup or shutdown events that you have been able to eliminate; if so, how? Use additional space if necessary.

3. Please submit a copy of any plan you have been required to develop to address startup and shutdown events.

4. Please provide all performance test data collected during periods of startup and shutdown over the last 3 years. Indicate the test method used for each event.

5. Please provide all monitoring data, including control system parameter monitoring, collected during periods of startup or shutdown over the last 3 years.

6. Optional: Do you wish to recommend a standard that would apply during startup or shutdown? If so, please describe the event to which the standard would apply; the recommended standard (this could be an emission limitation, work practice, or operational standard) that would apply during the period; the basis for the recommended standard; why and how the standard would minimize emissions during the event; and how would compliance be determined and/or monitored. Use additional space if necessary.



Problems experienced with control device within the last five years; how were problems solved? For example, periods when the process was shut down or excess emissions resulted because of control device problems.

List all monitoring methods used, including parameters and frequency

Plans to replace or upgrade thermal incinerator

Problems experienced with control device within the last five years; how were problems solved? For example, periods when the process was shut down or excess emissions resulted because of control device problems.

List all monitoring methods used, including parameters and frequency

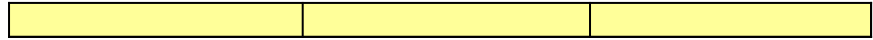
Plans to replace or upgrade condenser

Problems experienced with control device within the last five years; how were problems solved? For example, periods when the process was shut down or excess emissions resulted because of control device problems.

List all monitoring methods used, including parameters and frequency

Plans to replace or upgrade adsorber

Total annual operating cost



Form A-2

Form B-1

Yes

Open Face

No

Enclosed, but not a permanent total enclosure

Permanent total enclosure

Other (specify in comments)

Cross draft (side exhaust)

Down draft (floor exhaust)

1-Stage pad/panel

1-Stage bag

2-Stage pad/panel

2-Stage bag

1-Stage pad/panel and 1-stage bag

3-Stage pad/panel

1-Stage pad/panel and 2-stage bag

2-Stage pad/panel and 1-stage bag

Waterwash

Other (specify in comments)

None

Electrostatic precipitator

Scrubber

Mechanical collector

Fabric filter (other than spray booth filters)

Thermal incinerator

Thermal incinerator with concentrator

High velocity air filter

Mist eliminator

Carbon Adsorber

Biofilter

Condenser

Other (specify in comments)

Form C-1

Primer

Topcoat

Chemical milling maskant

Ablative coating

Adhesion promoter

Adhesive bonding primer, cured at 250°F or below

Adhesive bonding primer, cured above 250°F

Commercial interior adhesive

Cyanoacrylate adhesive

Fuel tank adhesive

Nonstructural adhesive

Rocket motor bonding adhesive

Rubber-based adhesive

Structural autoclavable adhesive

Structural nonautoclavable adhesive

Antichafe coating

Bearing coating

Caulking and smoothing compound

Chemical agent resistant coating

Clear coating

Commercial exterior aerodynamic structure primer

Compatible substrate primer

Corrosion prevention compound

Cryogenic flexible primer

Cryoprotective coating

Dry lubricative material

Electric or radiation-effect coating

Electrostatic discharge or electromagnetic interference coating

Elevated temperature Skydol-resistant commercial primer

Epoxy polyamide topcoat

Fire-resistant interior coating

Flexible primer

Missile or single use aircraft flight test coating

Flight test coating (all others)

Fuel tank coating

High temperature coating

Insulation covering

Intermediate release coating

Lacquer

Bonding maskant

Critical use and line sealer maskant

Seal coat maskant

Metallized epoxy coating
Mold release
Optical anti-reflective coating
Part marking coating
Pretreatment coating
Rain erosion-resistant coating
Rocket motor nozzle coating
Scale inhibitor
Screen print ink
Extrudable/rollable/brushable sealant
Sprayable sealant
Silicone insulation material
Solid film lubricant
Specialized function coating
Temporary protective coating
Thermal control coating
Wet fastener installation coating
Wing coating
Ablative coating
Other (specify in comments)

Spray applied
Other than spray applied

Form G-1

Form H-1

EPA TANKS

Fugitive

Other (specify in comments)

Stack

Form J-5

Direct Flame

Recupertive

Regenerative

Catalytic - Monolithic Fixed Bed

Catalytic - Packed Fixed Bed

Catalytic - Fluidized Bed