

OMB Control No. 2060-NEW

Approval expires **XX/XX/XX**

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 this 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.

ENCLOSURE 1

AEROSPACE MANUFACTURING AND REWORK INDUSTRY INFORMATION REQUEST QUESTIONNAIRE

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

I. Introduction

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 or 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 vehicles, components, or parts are listed in Table 1 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.

Table 1. 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 Propulsion Units Parts Manufacturing
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing
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 exempted 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, and certain repainting 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.

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 halogenated solvent cleaning. For example, you should not include in

your response information regarding chromium electroplating operations regulated under the chromium electroplating NESHAP.

You are not required to use the forms provided for your response, although we encourage you to do so as much as possible. If you have a compelling reason to provide the requested information in another format, you may do so. For example, facilities that use a large number of coatings and solvents may have existing spreadsheets or databases that contain information equivalent to Forms C-1 and E-3. You may submit such spreadsheets or databases (or other forms of data) instead of the forms provided. In this case, please do not submit your completed response using the upload website. Instead, you should submit your response by mail or email as described below.

How to Return Your Completed Response

Please use one of the following methods to return your completed response:

1. You may upload the completed Excel file at www.cleanairinfo.com/aerospace. Please follow the instructions at the website for uploading your response. **DO NOT USE THE UPLOAD SITE IF YOUR RESPONSE CONTAINS CONFIDENTIAL BUSINESS INFORMATION.** Please follow the instructions below for submitting confidential business information.
2. If you prefer to submit your response by mail, and your response contains no confidential business information, you may submit a computer disk (or other electronic storage medium) or a paper copy of the completed forms to the following address:

U.S. Mail:

Kim Teal
U.S. EPA Mailroom (E143-03)
United States Environmental Protection Agency
Office of Air Quality Planning and Standards
Research Triangle Park, NC 27711

Express Mail:

Kim Teal
U.S. EPA Mailroom (E143-03)
109 T.W. Alexander Drive
Research Triangle Park, NC 27709

3. You may email a completed electronic file that contains no confidential business information to teal.kim@epa.gov.

4. **Confidential Business Information. DO NOT ELECTRONICALLY TRANSMIT CONFIDENTIAL BUSINESS INFORMATION TO EPA.** If you believe that disclosure of any specific information that you submit would reveal confidential business information or a trade secret, you should clearly identify such specific information. Please do not label an entire response "confidential" if only certain portions consist of confidential business information or trade secrets. If you are submitting confidential business information, then this information must be mailed to EPA on CD-ROM or DVD-ROM disk under separate cover to the attention of Mr. Roberto Morales at the address below. Clearly mark the disk and/or the materials with the words "Confidential Business Information" and send either via U.S. Postal Service Express Mail, registered mail, or private courier to:

U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
U.S. EPA Mailroom (C404-02)
Attn: Mr. Roberto Morales, Document Control Officer
109 T.W. Alexander Drive
Research Triangle Park, NC 27711

II. Instructions for Completing the Forms

The questionnaire forms are separated into the following sections.

- A. Company and Facility Information
 - A-1. Parent Company Information
 - A-2. Facility Information
- B. Spray Booth Information
- C. Coatings Information
 - C-1. Coatings (English units)
 - C-2. Coatings (metric units)
- D. Chemical Milling and Metal Finishing Operations
- E. Cleaning Operations
 - E-1. Blast Depainting/Cleaning Operations
 - E-2. Solvent Depainting Operations
 - E-3. Solvent Cleaning Operations
- F. Composite Processing Operations
 - F-1. Composite Processing (English units)
 - F-2. Composite Processing (metric units)

G. Storage Tanks

H. Wastewater Treatment Operations

I. Air Pollution Control Device Startup and Shutdown

J. Control Devices

J-1. Electrostatic Precipitator

J-2. Scrubber

J-3. Mechanical Collector

J-4. Fabric Filter

J-5. Thermal Incinerator

J-6. Condenser

J-7. Carbon Adsorber

J-8. High Velocity Air Filter

J-9. Mist Eliminator

J-10. Other

K. Air Pollution Control Device Cost

All fields in the forms that apply to your operations must be completed, even if you enter "N/A."

For the purposes of this information request, all HAP concentrations and emissions are to be quantified. Do not report concentrations of emissions as "trace" or "minimal." If a concentration is at or below the applicable method's detection level, then provide information about the method (title and source), the calculated detection level in units of the applicable raw material or emissions concentration or mass rate, and the procedure for determining the detection level.

Throughout these forms, many of the cells for your data input have drop-down lists for you to choose an appropriate response. If the specific choice that characterizes your situation is not included in the list, please select "other" and provide a description of your situation in the comments section.

Form A-1. Parent Company Information

Complete this form to identify the parent company of this facility. This information will allow EPA to distinguish small businesses in any economic analysis that may be required. Section I, Question 8 (size of parent company) is an important factor that EPA will use to identify small businesses. Please note that the total of all full-time and part-time employees should be reported. This information is required for the parent company, not just this facility, all facilities within the parent company.

The Regulatory Flexibility Act (Public Law 96-354, September 19, 1980) (RFA) requires consideration of the impacts of regulations on small businesses. The major purpose of the RFA is to keep regulatory requirements from getting out of proportion to the scale of the businesses being regulated, without compromising the objectives of, in this case, the Clean Air Act (CAA). If a regulation is likely to have a significant economic impact on a substantial number of small businesses, EPA may, to the extent allowed by the CAA, give special consideration to those small businesses when analyzing regulatory alternatives and drafting a regulation. The Small Business Administration uses employment ranges to separate businesses into "large" and "small" categories. The actual cutoff between large and small facilities is dependent on the NAICS code of the establishments in question.

Form A-2. Facility Information

Provide the information requested in this form for this specific facility.

Section I

In Question 1, provide the actual address (not the mailing address) of this facility. You must also provide latitude and longitude coordinates for the facility. Latitude and longitude must be reported in decimal degrees to six decimal places.

Question 2 asks you to indicate whether this facility manufactures or reworks aerospace components or parts. 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.

Note that Question 2 is NOT asking whether the facility is subject to the aerospace NESHAP. If your facility performs any activities for the manufacture or rework aerospace components or parts, you should answer “Yes” to this question and complete the rest of the information request.

Question 3 - Enter all applicable North American Industrial Classification Codes (NAICS) that apply to the aerospace activities at this facility. NAICS codes may be found at <http://www.census.gov/eos/www/naics/>. Do not enter Standard Industrial Classification (SIC) codes.

Question 5 – Answer “Yes” or “No” whether this facility manufactures or reworks aerospace components or parts for each of the listed market segments.

Question 6 – Enter the typical operating schedule for this facility for the reporting year (2008). You may provide estimates if you do not track the hours/day and days/year the facility is in operation.

Section II

Provide the name and contact information for the technical contact for your response to this information request. The technical contact should be able to answer inquiries from EPA concerning any information provided in your response.

Section III

Question 1 – Identify whether this facility is a major source of HAP emissions. Section 112(a)(1) of the CAA defines a major source “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 or 25 tons per year or more of any combination of hazardous air pollutants.”

Question 2 – If you answer “No” to Question 1 of this section, specify whether the facility has a federally enforceable permit limitation to limit HAP emissions to less than the major source thresholds and, if so, identify any such limits.

Questions 3 and 4 – identify any non-aerospace products manufactured at this facility.

Question 5 – As part of this project, EPA may conduct air dispersion modeling of the emissions from facilities that respond to this information request. This modeling requires the input of the maximum hourly emissions from each emission point. However, we realize there are typically a large number of emission points at aerospace manufacturing and rework facilities, and determining the maximum hourly emissions from each and every emission point could be difficult and burdensome. Rather than asking for maximum hourly emissions for each emission point, we are instead requesting that you provide a single multiplier that we can use to scale up average hourly emissions (annual emissions divided by 8,760 hours/year) to maximum hourly emissions. We understand that a single multiplier may not be applicable to all operations at your facility. Please provide your best estimate of a multiplier that, overall, provides a general indication of the maximum hourly emissions for your facility. Based on the results of the air dispersion modeling, we may at a later time ask you to provide more specific information.

We will determine average hourly emissions from the data you provide in your response to this information request. Therefore, you must provide a response to this question, even if the multiplier you provide is 1. You must also provide a description of how you determined the multiplier in the comments section of this form.

Form B-1. Spray Booth Information

This form has space for entering data for 10 spray booths. If you are providing data for more than 10 spray booths, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each spray booth.

Question 2 – Choose one of the booth types from the drop-down list.

Question 3 – Enter the latitude and longitude coordinates for the location of this booth. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 4 – Enter the overall dimensions in feet of the building in which the booth is located (not the dimensions of the booth itself).

Question 5 – From the drop-down list, select “Cross Draft” if the airflow exits from the side of the booth, or “Down Draft” if the airflow exits from the bottom of the booth.

Question 6 – For the reporting year, enter the average number of hours per day this booth is in operation.

Section II

Question 1 – From the drop-down list, select the type of particulate filter system used for this booth.

Question 2-3 – Enter the particulate control efficiency for the particulate filters, and indicate how that efficiency was determined. The control efficiency should correspond to the coating operations typically carried out in this booth. For example, if a booth is typically used to apply primer to small parts using HVLP spray guns, then report the control efficiency that you believe best represents the control efficiency achieved for the overspray generated by this coating operation. You are not required to perform testing to determine the control efficiency. Use your best judgment based on the information available to you.

Section III

Question 1 – Enter the latitude and longitude coordinates for the location of the exhaust stack for this booth. The coordinates must be in decimal degrees to at least 6 decimal places.

Questions 2-5 – Enter the diameter and height of the exhaust stack in feet, temperature of the exhaust stream in degrees Fahrenheit, and the flow rate of the exhaust stream in actual cubic feet per minute.

Section IV

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

Question 1 – Enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in Form J.

Question 2 – Choose the appropriate control device type from the drop-down list.

Question 3-4 – Enter the capture efficiency for the organic emissions, and indicate how that efficiency was determined.

Form C-1 and C-2. Coatings

Use Form C-1 if you are reporting coating information in English units, or use Form C-2 if you are reporting coating information in metric units. **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. You may group similar coatings together and report them as a single coating, but the information you provide must be representative of all the coatings in the group.

Section I

Question 1 – Enter a unique identification number of your choosing for each coating.

Question 4 – Enter whether this coating is regulated under the aerospace NESHAP.

Question 5 – If you entered “Yes” for Question 4 of this section, select the coating type from the drop-down list. The coatings in the drop-down list are the only ones regulated under the aerospace NESHAP, so you must choose one of these coating types if you entered “Yes” for Question 4.

Question 6 – If you entered “No” for question 4 of this section, then the coating is a specialty coating. Choose the appropriate specialty coating type from the drop-down list. If you select “other,” you must provide a coating type in the comments section.

Section II

Some of the information requested in this section, such as specific HAP content, may be proprietary or undisclosed by the manufacturer. You are not required to perform testing to obtain the information to complete this form. Use readily available information from the manufacturer or supplier such as material safety data sheets or product data sheets. You may also consider contacting the manufacturer or supplier to determine if they can supply the requested information. If you are unable to obtain the requested information or believe that a coating may have HAP constituents that are not disclosed, you may make a note of this in the comments section.

Question 1 – Enter the total volume of this coating that your facility used for all coating operations (e.g., all spray booths) for the reporting year.

Question 2 – Enter the requested physical property data for this coating. This information must be provided for the coating in its **as-applied** condition. Thus, multipart coatings and coatings that you modify prior to application should be reported as-applied.

Question 3 – Enter the name of each HAP (organic and inorganic) contained in this coating, the Chemical Abstracts Service (CAS) Number for the HAP, and the mass

fraction of the HAP in the as-applied coating. If you do not know the CAS Number, it is often provided on the material safety data sheet for the coating. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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).

This form has space for entering data for 5 HAP components of the coating. If this coating has more than 5 HAP components, please add rows as necessary.

Section III

For each spray booth in which this coating was applied during the reporting year, enter the booth identification number (must match the identification number provided on Form B-1), and the percent of the total usage of that coating applied in this booth. The sum of the percent usage by booth should equal 100 percent for each coating. If a portion of the coating was not applied in a spray booth, then the sum of the percent usage by booth will be less than 100 percent. In this case, provide details in the comments section of the non-spray booth areas where the coating was used including the latitude and longitude coordinates, and volume of coating used in these areas. If your facility does not maintain adequate records of the volume of coatings used by spray booth, provide an engineering estimate and note this in the comments section.

If a portion of a coating is applied outside of a spray booth, report this under “Application of Coating Outside of a Spray Booth.” Select whether the coating is spray applied or other than spray applied, and enter the percent of the total usage applied outside of a booth.

This form has space for entering coating usage for 10 spray booths. If this coating was applied in more than 10 spray booths, please add rows as necessary.

Form D-1. Chemical Milling and Metal Finishing Operations

Use this form to report HAP usage and emissions from chemical milling and metal finishing operations. Examples of metal finishing operations include electrolytic nickel plating, anodizing, passivation, and phosphating. Report the requested information for each process tank/vat that contains HAP in the chemical milling and metal finishing operations.

This form has space for entering data for 10 tanks. If you are providing data for more than 10 tanks, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each tank.

Question 2 – Enter the latitude and longitude coordinates for the location of this tank. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 3 – Enter the overall dimensions in feet of the building in which the tank is located (not the dimensions of the tank itself).

Question 4 – Enter a brief description of the purpose of this tank in the chemical milling or metal finishing process (e.g., cleaning prior to electroplating, electroplating of nickel).

Question 5 - For the reporting year, enter the average number of hours per day and days per year this tank is in operation.

Section II

Question 1 – Enter the name of each HAP (organic and inorganic) contained in this tank, the Chemical Abstracts Service (CAS) Number for the HAP, and the annual emissions of the HAP from this tank. If you do not know the CAS Number, it is often provided on the material safety data sheet for the material in the tank. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAPs. If the material in the tank has more than 5 HAP components, please add rows as necessary.

Question 2 – If a control device is used to reduce the emissions of HAP from this tank, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 3 – Choose the appropriate control device type from the drop-down list.

Question 4-5 – Enter the capture efficiency for the organic emissions and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from this tank.

Form E-1. Blast Depainting/Cleaning Operations

Use this form to report HAP emissions from depainting and cleaning operations that use blasting methods such as sand blasting, plastic bead blasting, carbon dioxide blasting, sodium bicarbonate blasting, etc.

This form has space for entering data for 3 blasting operations. If you are providing data for more than 3 blasting operations, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each blasting operation.

Question 2 – Enter the latitude and longitude coordinates for the location of this blasting operation. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 3 – Identify where the blasting operation actually takes place. For example, the blasting operation could be located outside, in a partially enclosed booth or hanger, in a fully enclosed booth, etc.

Question 4 – Specifically identify the blasting material used. Be as specific as possible. For example, instead of reporting steel shot, report specifics about shape and size such as round steel balls, 40-50 mesh.

Question 5 – Enter the overall dimensions in feet of the building in which the blasting operation is located.

Question 6 – Enter a brief description of the purpose of this blasting operation (e.g., rework operation to remove paint; cleaning to remove oil and grease from parts).

Question 7 - For the reporting year, enter the average number of hours per day and days per year this blasting operation is in operation.

Section II

Question 1 – Enter the name of each HAP (organic and inorganic) emitted by this blasting operation, the Chemical Abstracts Service (CAS) Number for the HAP, and the annual emissions of the HAP from this blasting operation. If you do not know the CAS Number, it is often provided on material safety data sheets. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAPs. If this blasting operation emits more than 5 HAPs, please add rows as necessary.

Question 2 – If a control device is used to reduce the emissions of HAP from this blasting operation, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 3 – Choose the appropriate control device type from the drop-down list.

Question 4-5 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from this blasting operation.

Form E-2. Solvent Depainting Operations

Use this form to report HAP emissions from depainting operations that use solvent materials (liquid materials as opposed to blasting operations reported on Form E-1) to remove paint from aerospace components.

This form has space for entering data for 3 depainting operations. If you are providing data for more than 3 depainting operations, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each depainting operation.

Question 2 – Enter the latitude and longitude coordinates for the location of this depainting operation. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 3 – Enter the overall dimensions in feet of the building in which the depainting operation is located.

Question 4 – Enter a brief description of the purpose of this depainting operation (e.g., remove paint from landing gear components, depainting of aircraft exterior).

Question 5 - For the reporting year, enter the average number of hours per day and days per year this depainting operation is in operation.

Section II

Question 1 – Enter the name of each HAP (organic and inorganic) emitted by this depainting operation, the Chemical Abstracts Service (CAS) Number for the HAP, and the annual emissions of the HAP from this depainting operation. If you do not know the CAS Number, it is often provided on material safety data sheets. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAPs. If this depainting operation emits more than 5 HAPs, please add rows as necessary.

Question 2 – If a control device is used to reduce the emissions of HAP from this depainting operation, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 3 – Choose the appropriate control device type from the drop-down list.

Question 4-5 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from this depainting operation.

Form E-3. Solvent Cleaning Operations

Use this form to report HAP emissions from solvent cleaning operations such as hand-wipe cleaning of aerospace components, cleaning of spray guns, and cleaning of spray booths.

Do not report cleaning operations subject to the Halogenated Solvent Cleaning NESHAP (40 CFR part 63, subpart T) on this form. Use Form E-4 for those operations.

This form is divided into two parts: Part A for reporting cleaning operations that are conducted within an enclosure and the enclosure is vented through a stack (point source) outside of the building; and Part B for reporting cleaning operations that are not conducted with an enclosure (fugitive emission sources).

In Part A, please complete the requested information for each individual cleaning operation (i.e., each enclosure in which solvent cleaning occurs).

In Part B, please combine all of the fugitive solvent cleaning operations in a single entry for each building in which fugitive solvent cleaning occurs. That is, for fugitive solvent cleaning operations, you do not have to identify each individual cleaning operation. Simply combine all of the fugitive solvent cleaning emissions for each building and report the requested information for that building.

This form has space for entering data for 3 cleaning operations (or buildings for fugitive solvent cleaning). If you are providing data for more than 3 cleaning operations (or buildings), please add additional columns as necessary.

Part A

Section I

Question 1 – Enter a unique identification number of your choosing for each cleaning operation.

Question 2 – Enter the latitude and longitude coordinates for the location of this cleaning operation. The coordinates must be in decimal degrees to at least 6 decimal places.

Questions 3-6 – Enter the diameter and height of the exhaust stack in feet, temperature of the exhaust stream in degrees Fahrenheit, and the flow rate of the exhaust stream in actual cubic feet per minute.

Question 7 – Enter the overall dimensions in feet of the building in which the cleaning operation is located.

Question 8 – Enter a brief description of the purpose of this cleaning operation (e.g., cleaning of aerospace components after machining; cleaning to remove protective oils).

Question 9 - For the reporting year, enter the average number of hours per day and days per year this cleaning operation is in operation.

Section II

Question 1 – Enter the name of each HAP (organic and inorganic) emitted by this cleaning operation, the Chemical Abstracts Service (CAS) Number for the HAP, and the annual emissions of the HAP from this cleaning operation. If you do not know the CAS Number, it is often provided on material safety data sheets. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAPs. If this cleaning operation emits more than 5 HAPs, please add rows as necessary.

Question 2 – If a control device is used to reduce the emissions of HAP from this cleaning operation, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 3 – Choose the appropriate control device type from the drop-down list.

Question 4-5 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from this cleaning operation.

Part B

Section I

Question 1 – Enter a unique identification number of your choosing for each building in which solvent cleaning operations that are not vented outside the building occur.

Question 2 – Enter the latitude and longitude coordinates for the center of this building. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 3 – Enter the overall dimensions in feet of the building in which the cleaning operations are located.

Question 4 – Enter a brief description of the purpose of the cleaning operations (e.g., cleaning of aerospace components after machining; cleaning to remove protective oils).

Question 5 - For the reporting year, enter the average number of hours per day and days per year these cleaning operations are in operation.

Section II

Question 1 – Enter the name of each HAP (organic and inorganic) emitted by these cleaning operations, the Chemical Abstracts Service (CAS) Number for the HAP, and the annual emissions of the HAP from these cleaning operations. If you do not know the CAS Number, it is often provided on material safety data sheets. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAPs. If the cleaning operations in this building emit more than 5 HAPs, please add rows as necessary.

Section III

Describe any work practices that you use to reduce the emissions of HAP from this cleaning operation.

Form E-4. Halogenated Solvent Cleaning Operations

The EPA is requesting that you provide the information requested in Form E-4 for all cleaning operations at your facility that are subject to the Halogenated Solvent Cleaning NESHAP (40 CFR part 63, subpart T). Even though halogenated solvent cleaning operations are not subject to the aerospace NESHAP, the EPA is concerned that some aerospace facilities may have mistakenly reported emissions from these operations as emissions from operations subject to the aerospace NESHAP in past reporting to State or local agencies. The EPA is currently evaluating the residual risk from aerospace operations and halogenated solvent cleaning operations. In order to estimate the residual risk accurately from each of these categories, the EPA is attempting to first develop accurate emissions estimates. Your efforts to properly report halogenated solvent cleaning operations on Form E-4 and not on Form E-3 will play an important role in the EPA's development of emissions estimates for these two categories.

In order to assist you in determining which cleaning operations should be reported on Form E-4, the following description is reproduced from § 63.460(a) identifying the sources subject to subpart T:

each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. The concentration of these solvents may be determined using EPA test method 18, material safety data sheets, or engineering calculations. Wipe cleaning activities, such as using a rag containing halogenated solvent or a spray cleaner containing halogenated solvent are not covered under the provisions of this subpart.

NOTE: Not all cleaning operations that use methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform are subject to subpart T. Before reporting a cleaning operation on this form, make sure that the cleaning operation uses one or more of these halogenated solvents AND that the solvent is used in a batch vapor, in-line vapor, in-line cold, or batch cold solvent cleaning machine as these machines are defined in subpart T.

This form has space for entering data for 3 cleaning operations. If you are providing data for more than 3 cleaning operations, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each cleaning operation.

Question 2 – Enter the latitude and longitude coordinates for the location of this cleaning operation. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 3 – Enter the overall dimensions in feet of the building in which the cleaning operation is located.

Question 4 – Enter a brief description of the purpose of this cleaning operation (e.g., cleaning of aerospace components after machining; cleaning to remove protective oils).

Question 5 - For the reporting year, enter the average number of hours per day and days per year this cleaning operation is in operation.

Section II

Question 1 – For each halogenated solvent listed, enter the annual emissions of the HAP from this cleaning operation.

This form includes all six of the halogenated solvents covered under subpart T. Enter a value of zero for halogenated solvents not used in this cleaning operation.

Question 2 – If a control device is used to reduce the emissions of HAP from this cleaning operation, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 3 – Choose the appropriate control device type from the drop-down list.

Question 4-5 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from this cleaning operation.

Forms F-1 and F-2. Composite Processing Operations

*Use Form F-1 if you are reporting resin information in English units, or use Form F-2 if you are reporting resin information in metric units. **DO NOT** complete both Form F-1 and Form F-2.*

Use Forms F-1 and F-2 to report only those operations where the resin is applied at your facility to a substrate material such as a fabric. Do not report operations that involve a substrate material that is impregnated with resin when it is received at your facility.

This form has space for entering data for 10 resins used in composite processing operations. If you are providing data for more than 10 resins, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each resin.

Question 2 – Enter the name of the manufacturer of this resin

Question 3 – Enter the manufacturer's name or designation for this resin.

Section II

Question 1 – Enter the total volume of this resin that your facility used for all composite processing operations for the reporting year.

Question 2 – Enter the requested physical property data for this resin. This information must be provided for the resin in its as-applied condition.

Question 3 – Enter the name of each HAP (organic and inorganic) contained in this resin, the Chemical Abstracts Service (CAS) Number for the HAP, and the mass fraction of the HAP in the as-applied resin. If you do not know the CAS Number, it is often provided on the material safety data sheet for the resin. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAP components of the resin. If this resin has more than 5 HAP components, please add rows as necessary.

Question 4 – Enter the estimated percent of the organic HAP content that is emitted from this resin. Resins used for composite operations may contain HAP that is consumed in the curing reaction of the resin. Use this space to specify the amount of organic HAP that you believe may be emitted from this resin. You are not required to perform testing to determine this value. Use engineering judgment or information provided by the manufacturer or supplier of the resin, and provide a copy of this information with your completed survey response.

Section III

For each spray booth in which this resin was applied during the reporting year, enter the booth identification number (must match the identification number provided on Form B-1), and the percent of the total usage of that resin applied in this booth. The sum of the percent usage by booth must equal 100 percent for each resin. If a portion of the resin was not applied in a spray booth, then the sum of the percent usage by booth will be less than 100 percent. In this case, provide details in the comments section of the non-spray booth areas where the resin was used including the latitude and longitude coordinates, and volume of resin used in these areas. If your facility does not maintain adequate records of the volume of resins used by spray booth, provide an engineering estimate and note this in the comments section.

This form has space for entering resin usage for 3 spray booths. If this resin was applied in more than 3 spray booths, please add rows as necessary.

Section IV

Question 1 – If a control device is used to reduce the emissions of HAP from this composite processing operation, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 2 – Choose the appropriate control device type from the drop-down list.

Question 3-4 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Form G-1. Storage Tanks

Use this form to report HAP emissions from storage tanks used to store materials used in aerospace manufacturing and rework operations (e.g., solvents used for cleaning or for thinning coatings, depainting materials, waste treatment chemicals). Tanks and mixing vessels in centralized paint mixing and distribution rooms are considered storage tanks for the purposes of this form.

Do not complete this form for the following: 1) storage tanks that did not contain HAP during the reporting year; 2) storage tanks that contain fuel for engines, boilers, or other combustion devices; 3) storage tanks that operate at greater than atmospheric pressure; 4) storage tanks that contain HAP only as impurities; 5) vessels used to transport materials to the facility (e.g., 55 gallon drums of solvent as received from the supplier); 6) tanks used to store or process wastewater (see Form H-1), and tanks that are regulated under a NESHAP other than the Aerospace Manufacturing and Rework NESHAP.

Section I

Question 1 – Enter a unique identification number of your choosing for each tank.

Question 2 – Enter the type of tanks (e.g., fixed roof, internal floating roof, external floating roof, etc.).

Question 3 – Enter the latitude and longitude coordinates for the location of this tank. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 4 – Enter the diameter and height of the tank.

Question 5 – Specifically identify the liquid stored in the tank. Do not enter a generic term such as “solvent.” Rather, enter the specific name of the stored liquid, such as “VM&P Naphtha.” You may enter the trade name of the stored liquid.

Question 6 – If this storage tank is located indoors, enter the overall dimensions in feet of the building in which the tank is located.

Section II

Question 1 – Enter the annual throughput of the tank in gallons. If specific records are not available, you may estimate this value using purchase records, production records, or engineering estimates.

Question 2 – Enter each HAP component stored in the tank, the mass fraction of each HAP in the stored liquid, annual emissions of the HAP (not of the entire liquid, unless the liquid consists only of this HAP), and the method used to estimate the emissions.

You may use EPA's TANKS Emissions Estimation Software to calculate emissions from each tank. The TANKS software is available at <http://www.epa.gov/ttn/chief/software/tanks/index.html>. If you use TANKS to estimate emissions, you must provide all of the input values you used, as well as the model outputs.

This form has space for entering data for 5 HAP components of the stored liquid. If the stored liquid has more than 5 HAP components, please add rows as necessary.

Question 3 – If a control device is used to reduce the emissions of HAP from this tank, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 4 – Choose the appropriate control device type from the drop-down list.

Question 5-6 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from each storage tank.

Form H-1. Wastewater Treatment Operations

Use this form to report wastewater treatment operations for treating wastewater generated by aerospace manufacturing and rework operations. You only need to report those wastewater treatment operations that either treat HAP-containing wastewater or that use HAP-containing materials to treat wastewater. Do not report those operations that treat only wastewater from non-aerospace operations.

This form has space for entering data for 10 wastewater treatment tanks or operations. If you are providing data for more than 10 tanks or operations, please add additional columns as necessary.

Section I

Question 1 – Enter a unique identification number of your choosing for each wastewater processing tank or operation.

Question 2 – Enter the latitude and longitude coordinates for the location of this tank or operation. The coordinates must be in decimal degrees to at least 6 decimal places.

Question 3 – Enter the overall dimensions in feet of the building in which the tank or operation is located.

Question 4 – Describe the purpose of this tank or operation (e.g., adjust pH of wastewater prior to discharge; removal of heavy metals by precipitation).

Question 5 – For the reporting year, enter the average number of hours per day and days per year this tank or operation is in operation.

Section II

Question 1 – For each HAP (organic and inorganic) in the wastewater or used in the treatment of the wastewater, enter the name of the HAP, the Chemical Abstracts Service (CAS) Number of the HAP, the annual emissions in pounds/year, and whether the emissions are emitted through a stack or are fugitive emissions.

If you do not know the CAS Number, it is often provided on material safety data sheets. You may also find CAS Numbers at http://iaspub.epa.gov/sor_internet/registry/substreg/home/overview/home.do. There are also various other Internet sources that provide CAS Numbers.

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. 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).

This form has space for entering data for 5 HAPs. If this tank or operation processes or uses more than 5 HAPs, please add rows as necessary.

Question 2 – If a control device is used to reduce the emissions of HAP from this tank or operation, enter a unique identification number of your choosing for this control device. You must also complete a Form J for this control device and the identification number entered here must match the identification number entered in the Form J.

Question 3 – Choose the appropriate control device type from the drop-down list.

Question 4-5 – Enter the capture efficiency for the HAP emissions, and indicate how that efficiency was determined.

Section III

Describe any work practices that you use to reduce the emissions of HAP from each tank or operation.

Form I-1. Startups and Shutdowns

This form is used to report startup and shutdown events 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. Each aerospace manufacturing and rework operation that emits HAP and each add-on control device used to reduce the emissions of HAP from aerospace manufacturing and rework operations is subject to reporting on this form.

For the purposes of this form, particulate filters and waterwash systems used to capture overspray in paint spray booths are considered to be add-on control devices.

The following examples are provided as guidance for which startup and shutdown events must be reported:

Example 1: A facility has several spray booths in which aerospace primers and topcoats are applied. The ventilation fans on each spray booth are shut off when the booth is not being used and turned on again when parts are ready to be coated. No coating is applied when the fans are not operating. Even though each time the fans are turned on and off is a startup or shutdown event, Form I-1 does not need to be completed. Because no coatings are applied when the fan is not operating, emission limits would not be exceeded during the startup and shutdown events.

Example 2: A facility uses a thermal oxidizer to meet the 81 percent organic HAP emission reduction requirement of 40 CFR 63.745(d) for aerospace primer and topcoat operations. The thermal oxidizer has been shut down for maintenance. Following the repairs, the thermal oxidizer is restarted from a cold start, and the facility immediately starts to apply primers and topcoats. The emissions while the thermal oxidizer was not at the operating temperature resulted in an exceedence of the 81 percent emission reduction requirement. This event must be reported on Form I-1.

Example 3: A facility applies primers containing hexavalent chromium to aerospace parts in a spray booth. One operator turns off the ventilation fan for the spray booth, but another operator is still in the booth applying the primer. This shutdown event must be reported on Form I-1.

Provide the requested information if it is readily available. You are not required to perform additional testing or data gathering for these events in order to complete this form.

Form J-1 to J-10. Air Pollution Control Devices

Complete the appropriate form for each air pollution control device that you use to reduce HAP emissions from aerospace manufacturing and rework operations. You are not required to complete these forms for particulate filters and waterwash systems used to capture overspray in paint spray booths. Spray booth particulate filter information is reported on Form B-1, Section II, Particulate Filters.

Concerning mechanical collectors and fabric filters reported on Forms J-3 and J-4, if these devices are vented within a building, leave the latitude and longitude entries blank and note in the comments section that the device is vented within a building. Include an identification of the building in the comment.

Provide the requested information on these forms if it is readily available. You are not required to perform any additional testing in order to complete these forms.

Form K-1. Air Pollution Control Device Costs

Complete this form as completely as possible using readily available information for each air pollution control device for which you completed a Form J.