

**FINAL TITLE V
AIR POLLUTION OPERATION PERMIT
NO. 099-0021-002-AV**

**United Technologies Corporation - Pratt & Whitney
Facility ID No. 099-0021**

Palm Beach County, Florida

Permitting Authority:

**Palm Beach County Health Department
Division of Environmental Health and Engineering
Air Pollution Control Section
P.O. Box 29 (901 Evernia Street)
West Palm Beach, FL 33402-0029
(561) 355-3136**

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**FINAL TITLE V
AIR POLLUTION OPERATION PERMIT**

PALM BEACH COUNTY HEALTH DEPARTMENT
P.O. Box 29 (901 Evernia Street)
West Palm Beach, FL 33402-0029
(561) 355-3136

ISSUED TO:

Permittee:
United Technologies Corporation - Pratt & Whitney
P.O. Box 109600
West Palm Beach, FL 33410-09600

Responsible Official:
John K. Sillan, Manager - Facilities Management

DRAFT Permit No.:	099-0021-002-AV
Facility ARMS ID No.:	099-0021
SIC ID:	37 (3724)
Project:	Initial Title V Permit
Effective Date:	January 6, 1999
Renewal Application Due Date:	July 9, 2003
Expiration Date:	January 5, 2004

LOCATED AT:

This permit is issued for the operation of the following facility and location:

UTC - Pratt & Whitney
17900 Beeline Highway (SR 710)
Jupiter, FL 33478

UTM Coordinates: Zone 17; 567.3 km E; 2974.4 km N
Latitude: 26° 53' 28" North / Longitude: 80° 19' 20" West

STATEMENT OF BASIS:

The Palm Beach County Health Department (Health Department) issues this permit under the provisions of Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 of the Florida Administrative Code (F.A.C.). The Florida Department of Environmental Protection (DEP) has permitting jurisdiction under Section 403.087, F.S. However, in accordance with Section 403.182, F.S., the DEP recognizes the Health Department as the approved local air pollution control program in Palm Beach County. As such, the DEP and the Health Department have entered into a Specific Operating Agreement that delegates to the Health Department the authority to issue or deny permits for this type of air pollution source located in Palm Beach County. The above named permittee is authorized to operate the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Health Department.

ISSUED BY (PERMITTING AUTHORITY):

Executed in West Palm Beach, Florida.
PALM BEACH COUNTY HEALTH DEPARTMENT

Frank J. Gargiulo, PE, Division Director
Environmental Health and Engineering

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

Pratt & Whitney is a research and development facility that designs gas turbine and rocket engines for the Department of Defense and the National Aeronautics and Space Administration. Gas turbine engine operations include the engineering, manufacturing, and testing of prototype engines and parts. Rocket engine operations include the engineering, manufacturing, and testing of prototype and commercial engines. Both engine group operations are supported by a Materials Laboratory that develops and tests new materials.

The facility operates several regulated and unregulated sources of air pollution, also known as emissions units. Based on the initial Title V application received on June 17, 1996, this facility is a major source of carbon monoxide, oxides of nitrogen, sulfur dioxide, volatile organic compounds, trichloroethylene, and total combined hazardous air pollutants (HAPs). In addition, this facility emits minor amounts of particulate matter. Regulatory classifications for this facility include the following designations.

- **Title V** major source of air pollution
- **NSPS** for fuel storage tanks subject to 40 CFR 60, Subpart Kb (record keeping only)
- **NESHAP / MACT** for halogenated solvent cleaners subject to 40 CFR 63, Subpart T
- **NESHAP / MACT** for aerospace manufacturing and rework facilities subject to 40 CFR 63, Subpart GG
- **RACT (NO_x)** for diesel electrical generators subject to Rule 62-296.570, F.A.C.

SUBSECTION B. RELEVANT DOCUMENTS

Each "Appendix" identified in Section IV is a part of this Title V air permit and provides necessary supplementary information applicable to this permitting action. The documents listed below are not a part of this permit, but are relevant to this permitting action. These documents are on file with the Health Department.

06-17-96: Initial Title V permit application received.

09-30-97: Initial additional information requested.

11-07-97: Meeting with applicant partially resolving additional information requested.

01-12-98: Second request for additional information and 30 day extension granted to February 12, 1998.

02-06-98: Received partial additional information and request for extension to 03-31-98 to submit information regarding test cells; granted.

04-01-98: Request for extension to 04-30-98 to submit information regarding test cells; granted.

04-28-98: Received additional information regarding test cells.

05-26-98: Third request for additional information.

06-15-98: Received additional information; application complete.

{Permitting Note: Please indicate the Permit Number, Facility ARMS ID Number, and appropriate Emissions Unit ID Numbers on all correspondence, report submittals, applications, etc.}

SECTION I. FACILITY INFORMATION

SUBSECTION C. LIST OF EMISSIONS UNITS

This permit addresses the following emissions units (EUs):

EU No.	R / U*	BRIEF DESCRIPTION
001	U	Air compressors/heater (ACHR-2-B2)
006	R	Halogenated solvent vapor cleaning machine (DEG-2-CTJ) subject to NESHAP, Subpart T
009	U	Diesel storage tanks
010	U	Jet fuel storage tanks
012	R	Jet fuel storage tank (F-8-CFF) subject to NSPS, Subpart Kb
014	R	Paint spray booth (PS-1-ERS) used for refinishing support equipment
015	U	Closed-loop flush cleaning processes (BF-1-RL-10, SOL-1-CTJ, and C&F-1-ERS)
016	R	Boiler (BO-12-E6) fired by natural gas subject to small boiler BACT
018	U	Alkali scrubbing system (AS-2-MPL) controls nickel and silver plating lines
021	U	Alkali scrubbing system (AS-15-MPL) controls nickel and silver plating lines
022	R	Boilers (BO-1-MBH, BO-2-MBH) fired by natural gas subject to small boiler BACT
024	R	Halogenated solvent vapor cleaning machine (DEG-2-MAS) subject to NESHAP, Subpart T
031	R	Diesel storage tanks (DL-19-SEGF and DL-20-SEGF) subject to NSPS, Subpart Kb
035	R	Pattern shop environmental control booth (ECB-1-MPA) used for wood laminate prototypes
037	U	Gasoline storage tanks
040	U	Heat treatment furnaces (FU-3-MHT and FU-4-MHT) fired by natural gas
044	R	Paint spray booth (PS-4-MM) used for refinishing support equipment
045	U	Water evaporator (EV-1-MW)
049	U	Plasma spray booths
053	U	Woodshop dust collector (DC-1-MM)
059	U	Air and fuel heaters fired with natural gas
063	U	Woodshop dust collector (DC-1-RTF)
064	R	Paint spray booth (PSB-1-RTF) used for refinishing support equipment
065	U	Diesel engines powering fire protection pumps and cooling water pumps during rocket engine testing
066	R	Boiler (BO-14-E8) fired by propane subject to small boiler BACT
067	R	Boiler (BO-3-MDL) fired by natural gas subject to small boiler BACT
068	R	Emergency electrical generating facility
069	U	Jet engine test stands
070	R	Aerospace hand-wiping operations subject to NESHAP, Subpart GG
071	R	Aerospace spray gun cleaning operations subject to NESHAP, Subpart GG
072	R	Aerospace flush cleaning operations subject to NESHAP, Subpart GG
073	R	Aerospace primer and topcoat application operations subject to NESHAP, Subpart GG
074	R	Aerospace waste storage and handling operations subject to NESHAP, Subpart GG

* (R)egulated and (U)nregulated: An unregulated emissions unit is an emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards. Such emissions units and/or activities are neither "regulated" nor "exempt".

SECTION II. FACILITY-WIDE CONDITIONS

{Permitting Note: All applications, reports, tests, and notifications shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department at P.O. Box 29 (901 Evernia Street), West Palm Beach, Florida, 33402-0029, and phone number (561) 355-3136. In addition, copies of all documents shall be submitted to the Air Program, Southeast District Office, Florida Department of Environmental Protection (DEP) at P.O. Box 15425 (400 North Congress Avenue), West Palm Beach, Florida, 33416-5425.}

1.0 ADMINISTRATIVE REQUIREMENTS

- 1.1 Title V Conditions: The permittee shall be aware of, and operate in accordance with, the attached Title V Conditions listed in Appendix TV-1. *{Permitting Note: Appendix TV-1 is distributed only to the permittee. The permittee or other persons shall be provided one copy when requested or when otherwise appropriate.}*

[Chapters 62-4, 62-204, 62-210, 62-213, 62-256, 62-257, 62-281, and 62-296, F.A.C.]

- 1.2 Prevention of Accidental Releases (Section 112(r) of CAA): If and when required by 40 CFR 68, the permittee shall submit the following documents to the implementing agency, if and when such a requirement becomes applicable:

- (a) A risk management plan (RMP); and
- (b) Certification forms and/or RMPs according to the promulgated rule schedule.

[40 CFR 68]

- 1.3 Insignificant Activities: Appendix E lists unregulated activities that emit insignificant amounts of air pollutants.

[Rules 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

2.0 EMISSION LIMITING AND PERFORMANCE STANDARDS

- 2.1 General Restrictions for VOC / OS Emissions: The permittee shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices, systems, or methods deemed necessary and ordered by the Health Department. The permittee shall:

- (a) Regularly inspect and maintain all piping, valves, flanges, tanks, and containers used for the storage and transfer of organic liquids in order to minimize fugitive VOC and OS emissions.
- (b) Direct solvent-containing materials to containers that prevent evaporation, when not in use.

[Rule 62-296.320(1)(a), F.A.C.; Not Federally Enforceable]

- 2.2 Objectionable Odors: There shall be no objectionable odors generated from the operation of this facility. An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.

[Rules 62-296.320(2) and 62-210.200(203), F.A.C.; Not Federally Enforceable]

- 2.3 General Visible Emissions Standard: Unless otherwise allowed by the specific conditions of this permit, the permittee shall not cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20 percent opacity. EPA Method 9, adopted and incorporated by reference in accordance with Chapter 62-297, F.A.C., shall be used to demonstrate compliance when required.

[Rule 62-296.320(4)(b)1., F.A.C.]

- 2.4 Unconfined Emissions of Particulate Matter: The permittee shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions shall include the following:

- (a) Removing fugitive dust from paved roads, paved parking areas, work areas, and/or buildings under the control of the permittee of the facility, as necessary to prevent particulate from becoming airborne.
- (b) Landscaping or planting of vegetation.

SECTION II. FACILITY-WIDE CONDITIONS

- (c) Using shrouds, tarps, hoods, ducts, fans, filters, and similar equipment to contain and/or capture particulate matter if vented to the outside ambient air.

Facilities that cause frequent, valid complaints will be required by the Health Department to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice. Reasonable precautions other than those listed above may require a minor revision of this permit.

[Rule 62-296.320(4)(c), F.A.C. and Initial Title V Application; Not Federally Enforceable]

2.5 Excess Emissions - Rule 62-210.700, F.A.C.

{Permitting Note: Rule 62-210.700, F.A.C. applies only to those emissions units subject to a standard based solely on a requirement pursuant to the Florida State Implementation Plan (SIP). This rule does not apply to any emissions standards resulting from federally-delegated programs such as PSD, NSPS, NESHAP, MACT, etc. In other words, emissions in excess of any standard based on a federally-delegated program are allowed only if defined in the applicable federal program.}

- (a) Excess emissions resulting from *startup, shutdown or malfunction of an emissions unit* shall be permitted providing:
- (1) Best operational practices to minimize emissions are adhered to, and
 - (2) The duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
- (b) Excess emissions from *existing fossil fuel steam generators resulting from startup or shutdown* shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.
- (c) Excess emissions from *existing fossil fuel steam generators resulting from boiler cleaning (soot blowing) and load change* shall be permitted provided the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not exceed 60 percent opacity, and providing:
- (1) Best operational practices to minimize emissions are adhered to, and
 - (2) The duration of excess emissions shall be minimized.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than four, 6-minute periods, during the 3-hour period of excess emissions allowed by this subparagraph, for boiler cleaning and load changes, at units which have installed and are operating, or have committed to install or operate, continuous opacity monitors.

Particulate matter emissions shall not exceed an average of 0.3 pounds per million BTU heat input during the 3-hour period of excess emissions allowed by this subparagraph.

- (d) Excess emissions which are caused entirely or in part by *poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction* shall be prohibited.
- (e) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
- (f) In case of excess emissions resulting from *malfunctions*, each permittee shall notify the Health Department in accordance with Rule 62-4.130, F.A.C.

[Rule 62-210.700, F.A.C.]

- 2.6 Plant Operation - Problems:** If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall notify the Health Department within one working day. Notification shall include pertinent information as to the cause of the

SECTION II. FACILITY-WIDE CONDITIONS

problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the permittee's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.

[Rule 62-4.130, F.A.C.]

3.0 COMPLIANCE MONITORING REQUIREMENTS

3.1 Florida Test Methods and Procedures shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. These requirements are listed in *Appendix T* of this permit.

[Rule 62-297.100, F.A.C.]

4.0 REPORTS REQUIRED

4.1 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the permittee shall submit an Annual Operating Report [DEP Form No. 62-210.900(5), F.A.C.] to the Health Department which summarizes operations for the previous calendar year.

[Rule 62-210.370(3), F.A.C.]

4.2 Annual Statement of Compliance: Before March 1st of each year, the permittee shall submit an annual statement of compliance.

(3) Statement of Compliance. For each applicable requirement, the permit shall contain:

- (a) A provision for assessing or monitoring compliance for each unit within the source;
- (b) A provision that the source submit a statement of compliance with all terms and conditions of the permit. Such statements shall be submitted to the Department and EPA annually, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement. Such statements shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C.;
- (c) A requirement that the statement of compliance status include the identity of each term or condition of the permit for which each unit has remained in compliance during the period covered by the statement. The statement shall include identification of all methods used to demonstrate compliance and identification of each term or condition of the permit for which any unit has not remained in compliance during the period covered by the statement. For each term or condition for which the source has not remained in compliance during the period covered by the statement, the statement shall also identify each unit not in compliance and each term and condition with which the unit was not in compliance and state the inclusive dates that the source was not in compliance, the actions taken to achieve compliance and the method used to demonstrate compliance. Such statement shall be accompanied by a certification by a responsible official, in accordance with Rule 62-213.420(4), F.A.C.

[Rule 62-213.440(3), F.A.C.]

4.3 Semiannual Monitoring Reports: Before March 1st and September 1st of each year, the permittee shall submit a semiannual report that:

- (a) Summarizes any monitoring required by this permit;
- (b) Clearly identifies all instances of deviations from permit requirements;
- (c) Indicates any deviations from permit requirements due to excess emissions [Rule 62-210.700(6), F.A.C.] and plant operational problems [Rule 62-4.130, F.A.C.], including those attributable to upset conditions as defined in the permit;
- (d) Identifies the probable cause of each deviation, and any corrective actions or preventive measures taken; and
- (e) Is certified by the responsible official, pursuant to Rule 62-213.420(4), F.A.C.

[62-213.440(1)(b)3.a., F.A.C.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. HALOGENATED SOLVENT BATCH VAPOR CLEANING MACHINES SUBJECT TO NESHAP, SUBPART T

This subsection addresses the following emissions units:

EU No.	R / U*	BRIEF DESCRIPTION
006	R	Halogenated solvent vapor cleaning machine (DEG-2-CTJ) with solvent/air interface of 15.75 square feet located in the SSME assembly area near Test Area E; Detrex Model No. 205L-500E, Serial No. 61246
024	R	Halogenated solvent vapor cleaning machine (DEG-2-MAS) with solvent/air interface of 8.0 square feet located in the RL-10 assembly area in the Manufacture Area; Detrex Model No. RDSL-500 E, Serial No. 72894
<p><i>The Source Classification Code for open top vapor cleaning machine using trichloroethylene is SCC #4-01-002-05.</i></p>		

{Permitting Note: Each of these emissions units uses the halogenated solvent "trichloroethylene" in the cleaning process and is therefore, subject to the NESHAP for halogenated solvent cleaning, 40 CFR 63, Subpart T.}

1.0 APPLICABILITY [40 CFR 63.460]

1.1 **Applicability:** The provisions of this permit subsection apply to each individual batch vapor 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.

[40 CFR 63.460(a)]

1.2 **General Provisions:** The permittee shall be aware of, and operate in accordance with, the General NESHAP Provisions listed in Appendix NE.

[40 CFR 63.460(b)]

1.3 **Definitions:**

- (a) *Batch cleaning machine* means a solvent cleaning machine, in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the solvent cleaning machine. An open-top vapor cleaning machine is a type of batch cleaning machine. A solvent cleaning machine, such as a Ferris wheel or cross-rod cleaning machine, that clean multiple batch loads simultaneously and are manually loaded are batch cleaning machines.
- (b) *Freeboard area* means; for a batch cleaning machine, the area within the solvent cleaning machine that extends from the solvent/air interface to the top of the solvent cleaning machine; for an in-line cleaning machine, it is the area within the solvent cleaning machine that extends from the solvent/air interface to the bottom of the entrance or exit opening, whichever is lower.
- (c) *Freeboard height* means; for a batch cleaning machine, the distance from the solvent/air interface, as measured during the idling mode, to the top of the cleaning machine; for an in-line cleaning machine, it is the distance from the solvent/air interface to the bottom of the entrance or exit opening, whichever is lower, as measured during the idling mode.
- (d) *Freeboard ratio* means the ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.
- (e) *Solvent/Air Interface Area* - For a vapor cleaning machine, this means the surface area of the solvent vapor zone that is exposed to the air.
- (f) *Vapor cleaning machine* means a batch or in-line solvent cleaning machine that boils liquid solvent generating solvent vapor that is used as a part of the cleaning or drying cycle.

[40 CFR 63.461]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. HALOGENATED SOLVENT BATCH VAPOR CLEANING MACHINES SUBJECT TO NESHAP, SUBPART T

2.0 ALTERNATIVE STANDARDS [40 CFR 63.464]

2.1 **Alternative Standards:** The permittee shall ensure that the 3-month rolling monthly emissions from each solvent cleaning machine are equal to or less than 150 kilograms of solvent per square meter per month (30.67 pounds of solvent per square feet per month). Operators shall maintain a written log of solvent additions and removals for each solvent cleaning machine. Each month, the permittee shall demonstrate compliance with this 3-month rolling average monthly emission limit as described in Part 3.0 of this permit subsection.

[40 CFR 63.464(a), (b) and Applicant Request]

2.2 **Exceedance:** If the 3-month rolling average monthly emission limit is not met, an exceedance has occurred. All exceedances shall be reported as required in Part 5.0 of this permit subsection.

[40 CFR 63.464(c)]

3.0 COMPLIANCE MONITORING [40 CFR 63.465]

3.1 **Monthly Refilling:** On the first operating day of every month, the permittee shall ensure that each solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill line each month, immediately prior to calculating monthly emissions as specified in condition 3.2 of this permit subsection. The solvent cleaning machine *does not* have to be emptied and filled with fresh unused solvent prior to the calculations.

[40 CFR 63.465(b)]

3.2 **Monthly Emissions Determinations:** On the first operating day of the month, the permittee shall determine the following information for each batch vapor solvent cleaning machine with a solvent/air interface.

(a) Using the records of all solvent additions and removals for the previous monthly reporting period, determine the solvent emissions (E_i) using the following equation:

$$E_i = \frac{SA_i - LSR_i - SSR_i}{AREA_i}$$

Where:

E_i = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i , (kilograms of solvent per square meter of solvent/air interface area per month, or pounds of solvent per square feet of solvent/air interface area per month)

E_n = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period n , (kilograms or pounds of solvent per month)

SA_i = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i , (kilograms or pounds of solvent per month)

LSR_i = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the most recent monthly reporting period i , (kilograms or pounds of solvent per month)

SSR_i = the total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste, as determined below, during the most recent monthly reporting period i , (kilograms or pounds of solvent per month)

$AREA_i$ = the solvent/air interface area of the solvent cleaning machine (square meters or square feet)

(b) Determine SSR_i using one of the following methods:

- (1) From tests conducted using EPA reference method 25d.
- (2) By engineering calculations included in the compliance report.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. HALOGENATED SOLVENT BATCH VAPOR CLEANING MACHINES SUBJECT TO NESHAP, SUBPART T

- (c) Determine the monthly rolling average, EA, for the 3-month period ending with the most recent reporting period using the following equation:

$$EA_i = \frac{\sum_{j=1}^3 E_j}{3}$$

Where:

EA_i = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per square meter of solvent/air interface area per month, or pounds of solvent per square feet of solvent/air interface area per month)

EA_n = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms or pounds of solvent per month)

E_j = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area, or pounds of solvent per square feet of solvent/air interface area per month)

E_n = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms or pounds of solvent per month)

$j=1$ = the most recent monthly reporting period

$j=2$ = the monthly reporting period immediately prior to $j=1$

$j=3$ = the monthly reporting period immediately prior to $j=2$

[40 CFR 63.465(c)]

- 3.3 **Potential to Emit:** The facility's total potential to emit is the sum of the HAP emissions from all solvent cleaning operations, plus all HAP emissions from other sources within the facility. For all solvent cleaning operations, the potential to emit shall be determined using the following procedures.

- (a) The potential to emit for each individual solvent cleaning machine shall be determined by the following equation:

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

PTE_i = the potential to emit for solvent cleaning machine i (kilograms or pounds of solvent per year)

H_i = hours per year of operation for solvent cleaning machine i (8760 hours per year)

W_i = the working mode uncontrolled emission rate for batch vapor cleaning machines (1.95 kilograms per square meter per hour, or 0.40 pounds per square feet per hour)

SAI_i = solvent/air interface area of solvent cleaning machine i (square meters)

- (b) Sum the PTE_i for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

[40 CFR 63.465(e)]

4.0 RECORD KEEPING REQUIREMENTS [40 CFR 63.467]

- 4.1 **Retention:** The permittee shall maintain the following records for a period of 5 years either in electronic or written form:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. HALOGENATED SOLVENT BATCH VAPOR CLEANING MACHINES SUBJECT TO NESHAP, SUBPART T

- (a) The dates and amounts of solvent that were added to or removed from each solvent cleaning machine.
- (b) The solvent composition of wastes removed from cleaning machines as determined either:
 - (1) From tests conducted using EPA reference method 25d, *or*
 - (2) By engineering calculations included in the compliance report.
- (c) Calculation sheets showing how monthly emissions and the rolling 3-month average emissions from the solvent cleaning machines were determined, and the results of all calculations.

[40 CFR 63.467(c)]

5.0 REPORTING REQUIREMENTS [40 CFR 63.468]

5.1 Solvent Emission Report: The permittee shall submit a solvent emission report each year containing the following information:

- (a) The size (solvent/air interface area) and type of each unit subject to this NESHAP.
- (b) The average monthly solvent consumption for the solvent cleaning machine in kilograms per month.
- (c) The 3-month rolling average monthly solvent emissions calculated each month using the method as determined by condition 3.2 of this permit subsection.
- (d) This report shall be submitted with the required Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C.

[40 CFR 63.468(g)]

5.2 Exceedance Report: The permittee shall submit a semiannual exceedance report to the Health Department. If an exceedance occurs, the permittee shall begin submitting quarterly exceedance reports. In addition, the Health Department may determine that more frequent reporting is necessary to accurately assess the compliance status of the source. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half, quarter, or other specified reporting period. Exceedance reports shall include the following information:

- (a) Records of written or verbal orders for replacement parts, a description of the repairs made, and any additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
- (b) *If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.*
- (c) *If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.*
- (d) Unless otherwise required by the Health Department, this report shall be submitted as a part of the facility-wide "Semiannual Monitoring Reports" due before March 1st and September 1st of each year.

[40 CFR 63.468(h)]

5.4 Return to Compliance: *If required to submit an exceedance report on a quarterly or more frequent basis, the permittee may return to semiannual reporting once the following conditions have been met:*

- (a) The source has demonstrated a full year of compliance without an exceedance.
- (b) The permittee continues to comply with all relevant record keeping and monitoring requirements specified in 40 CFR 63, Subpart A (General Provisions) and Subpart T (Halogenated Solvent Cleaning).
- (c) The Health Department grants written approval of the request for a reduced reporting frequency.

[40 CFR 63.468(i)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION B. AEROSPACE NESHAP, SUBPART GG - HAND-WIPING OPERATIONS

This subsection addresses the following activities as a single emissions unit:

EU No.	R / U*	BRIEF DESCRIPTION
070	R	Aerospace hand-wiping operations subject to NESHAP, Subpart GG

{Permitting Note: Appendix NE specifies the general provisions applicable to all affected sources subject to a NESHAP. Appendix GG contains the general applicability requirements, definitions, and a description of specialty coatings for affected sources subject to NESHAP Subpart GG.}

1.0 APPLICABILITY

1.1 Applicability: This subsection applies to all hand-wipe cleaning operations at this facility except the following:

- (a) Hand-wipe cleaning operations that use only cleaners containing HAP and VOC at a concentration less than 0.1% for carcinogens or 1.0% for noncarcinogens, as determined from manufacturer's representations.

CFR 63.741(f)]

- (b) Hand-wipe cleaning operations that use only aqueous solvents in which water is the primary ingredient. Eighty (80) percent or more of the cleaning solvent solution as applied must be water. Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93 °C (200 °F) (as reported by the manufacturer) and the solution must be miscible with water.

CFR 63.744(a) and (e)]

- (c) Hand-wipe cleaning operations that use only hydrocarbon-based cleaning solvents that are composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and have a maximum vapor pressure of 7 mm Hg at 20 °C (3.75 in. H₂O at 68 °F). These cleaners also contain no HAP.

CFR 63.744(a) and (e)]

1.2 Exempt Cleaning Operations: The following cleaning operations are exempt from the requirements of this subsection:

- (a) Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;
- (b) Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);
- (c) Cleaning and surface activation prior to adhesive bonding;
- (d) Cleaning of electronic parts and assemblies containing electronic parts;
- (e) Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;
- (f) Cleaning of fuel cells, fuel tanks, and confined spaces;
- (g) Surface cleaning of solar cells, coated optics, and thermal control surfaces;
- (h) Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;
- (i) Cleaning of metallic and nonmetallic materials used in honeycomb cores during the manufacture or maintenance, of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;
- (j) Cleaning of aircraft transparencies, polycarbonate or glass substrates; and
- (k) Cleaning and cleaning solvent usage associated with research and development, quality control, and laboratory testing.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION B. AEROSPACE NESHAP, SUBPART GG - HAND-WIPING OPERATIONS

- (l) Cleaning operations, using nonflammable liquids, conducted within five feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections; and
- (m) Cleaning operations identified as essential uses under the Montreal Protocol for which the Administrator has allocated essential use allowances or exemptions in 40 CFR § 82.4.

[40 CFR 63.744(e)]

2.0 CONTROL REQUIREMENTS

2.1 General Housekeeping Measures: The permittee shall comply with the following general housekeeping measures:

- (a) Place cleaning solvent-laden cloth, paper, or any other absorbent applicators used for cleaning, in bags or other closed containers upon completing their use. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.
- (b) Store fresh and spent cleaning solvents in closed containers (except semi-aqueous solvent cleaners).
- (c) Minimizes spills when handling and transferring fresh or spent cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment.

[40 CFR 63.744(a)]

2.2 Hand-Wipe Cleaning Operations: The permittee shall comply with the following conditions for all hand-wipe operations:

- (a) All hand-wipe solvents shall have a composite vapor pressure of 45 mm Hg (24.1 in. H₂O) or less at 20°C (68°F).

[40 CFR 63.744(b)]

3.0 TEST METHODS AND PROCEDURES

3.1 Vapor Pressure Determination: The composite vapor pressure of hand-wipe cleaning solvents used in a cleaning operation subject to this subpart shall be determined as follows:

- (a) For single-component hand-wipe cleaning solvents, the vapor pressure shall be determined using MSDS or other manufacturer's data, standard engineering reference texts, or other equivalent methods.
- (b) The composite vapor pressure of a blended hand-wipe solvent shall be determined by quantifying the amount of each organic compound in the blend using manufacturer's supplied data or a gas chromatographic analysis in accordance with ASTM E 260-91 (incorporated by reference as specified in § 63.14 of subpart A of this part) and by calculating the composite vapor pressure of the solvent by summing the partial pressures of each component. The vapor pressure of each component shall be determined using manufacturer's data, standard engineering reference texts, or other equivalent methods. The following equation shall be used to determine the composite vapor pressure:

$$PP_c = \sum_{i=1}^n \frac{(W_i)(VP_i)}{MW_i}$$
$$\frac{W_w}{MW_w} + \frac{\sum_{i=1}^n W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}$$

where:

- W_i = Weight of the "i"th VOC compound, grams.
- W_w = Weight of water, grams.
- W_e = Weight of non-HAP, nonVOC compound, grams.
- MW_i = Molecular weight of the "i"th VOC compound, g/g-mole.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION B. AEROSPACE NESHAP, SUBPART GG - HAND-WIPING OPERATIONS

- MW_w = Molecular weight of water, g/g-mole.
 MW_e = Molecular weight of exempt compound, g/g-mole.
 PP_c = VOC composite partial pressure at 20 °C, mm Hg.
 VP_i = Vapor pressure of the "i"th VOC compound at 20 °C, mm Hg.

[40 CFR 63.750(b)]

4.0 RECORD KEEPING

4.1 Compliance Demonstration: Compliance with the requirements of this subsection shall be demonstrated by keeping the following records:

- (a) The name, composite vapor pressure, and documentation showing the organic HAP constituents of each regulated and exempt solvent used for hand-wipe cleaning.
- (b) All vapor pressure test results (if appropriate), data, and calculations used to determine the composite vapor pressure of each regulated and exempt cleaning solvent;
- (c) The gallons of each regulated and exempt hand-wipe cleaning solvent used each month.
- (d) Maintain a list of cleaning operations using each regulated and exempt hand-wipe cleaning solvent.

[40 CFR 63.749(c)(1) and 40 CFR 63.752(b)(3), (4)]

5.0 REPORTING

5.1 Semiannual Reports: The permittee shall submit semiannual reports of the compliance status that identify:

- (a) Any instance where a noncompliant cleaning solvent is used for a non-exempt hand-wipe cleaning operation;
- (b) A list of any new cleaning solvents used for hand-wipe cleaning in the previous 6 months and, as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in § 63.744(b)(1); and
- (c) If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.
- (d) These reports shall be submitted as a part of the facility-wide "Semiannual Monitoring Reports" due before March 1st and September 1st of each year.

[40 CFR 63.753(b)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION C. AEROSPACE NESHAP, SUBPART GG - SPRAY GUN CLEANING OPERATIONS

This subsection addresses the following activities as a single emissions unit:

EU No.	R / U*	BRIEF DESCRIPTION
071	R	Aerospace spray gun cleaning operations subject to NESHAP Subpart GG

{Permitting Note: Appendix NE specifies the general provisions applicable to all affected sources subject to a NESHAP. Appendix GG contains the general applicability requirements, definitions, and a description of specialty coatings for affected sources subject to NESHAP Subpart GG.}

1.0 APPLICABILITY

1.1 **Exception:** This subsection applies to each spray gun cleaning operation associated with aerospace manufacturing and rework at this facility except the following: spray gun cleaning operations that use only containing HAP and VOC at a concentration less than 0.1% for carcinogens or 1.0% for noncarcinogens, as determined from manufacturer's representations.

[40 CFR 63.744(c) and 40 CFR 63.741(f)]

2.0 CONTROL REQUIREMENTS

2.1 **General Housekeeping Measures:** The permittee shall comply with the following general housekeeping measures:

- (a) Place cleaning solvent-laden cloth, paper, or any other absorbent applicators used for cleaning, in bags or other closed containers upon completing their use. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.
- (b) Store fresh and spent cleaning solvents in closed containers (except semi-aqueous solvent cleaners).
- (c) Minimizes spills when handling and transferring fresh or spent cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment.

[40 CFR 63.744(a)]

2.2 **Spray Gun Cleaning Operations:** The permittee shall use one of the following methods to clean spray guns associated with the aerospace manufacturing and rework operations:

- (a) **Enclosed System:** Clean the spray gun in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning shall consist of forcing solvent through the gun. Any leak in the enclosed system shall be repaired as soon as practicable, but no later than 15 days after the leak was found. If the leak is not repaired by the 15th day after detection, the cleaning solvent shall be removed and the enclosed cleaner shall be shut down until the leak is repaired or its use is permanently discontinued; or

[40 CFR 63.744(c)(1)]

- (b) **Nonatomized Cleaning:** Clean the spray gun by placing cleaning solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air is to be used. Direct the cleaning solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use; or

[40 CFR 63.744(c)(2)]

- (c) **Disassembled Spray Gun Cleaning:** Disassemble the spray gun and clean the components by hand in a vat, which shall remain closed at all times except when in use. Alternatively, soak the components in a vat, which shall remain closed during the soaking period and when not inserting or removing components; or

[40 CFR 63.744(c)(3)]

- (d) **Atomizing Cleaning:** Clean the spray gun by forcing the cleaning solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized solvent emissions.

[40 CFR 63.749(c)(2) and 40 CFR 63.744(c)(4)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION C. AEROSPACE NESHAP, SUBPART GG - SPRAY GUN CLEANING OPERATIONS

3.0 MONITORING REQUIREMENTS

3.1 Enclosed Systems: The permittee shall visually inspect the seals and all other potential sources of leaks associated with each enclosed gun spray cleaner system at least once per month. Each inspection shall occur while the system is in operation.

[40 CFR 63.751(a)]

4.0 RECORD KEEPING

4.1 Leaks: For each leak identified from an enclosed spray gun cleaner, the permittee shall record the following information:

- (a) Identification and location of spray gun cleaner;
- (b) Date leak was discovered; and
- (c) Date leak was repaired.

[40 CFR 63.752(b)(5)]

5.0 REPORTING

5.1 Semiannual Reports: The permittee shall submit semiannual reports of the compliance status that identify:

- (a) Any instance where a noncompliant cleaning solvent is used for a non-exempt hand-wipe cleaning operation;
- (b) Any instance where a noncompliant spray gun cleaning method is used;
- (c) Any instance where a leaking enclosed spray gun cleaner remains unrepaired and in use for more than 15 days; and
- (d) If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.
- (e) These reports shall be submitted as a part of the facility-wide "Semiannual Monitoring Reports" due before March 1st and September 1st of each year.

[40 CFR 63.753(b)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION D. AEROSPACE NESHAP, SUBPART GG - FLUSH CLEANING OPERATIONS

This subsection addresses the following activities as a single emissions unit:

EU No.	R / U*	BRIEF DESCRIPTION
072	R	Aerospace flush cleaning operations subject to NESHAP, Subpart GG

{Permitting Note: Appendix NE specifies the general provisions applicable to all affected sources subject to a NESHAP. Appendix GG contains the general applicability requirements, definitions, and a description of specialty coatings for affected sources subject to NESHAP Subpart GG.}

1.0 APPLICABILITY

1.1 **Applicability:** This subsection applies to all flush cleaning operations associated with aerospace manufacturing and rework at this facility except the following:

- (a) Cleaning operations that use only containing HAP and VOC at a concentration less than 0.1% for carcinogens or 1.0% for noncarcinogens, as determined from manufacturer's representations.

CFR 63.741(f)]

- (b) Cleaning operations that use only aqueous solvents in which water is the primary ingredient. Eighty (80) percent or more of the cleaning solvent solution as applied must be water. Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93 °C (200 °F) (as reported by the manufacturer) and the solution must be miscible with water.

CFR 63.744(a) and (e)]

- (c) Cleaning operations that use only hydrocarbon-based cleaning solvents that are composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and have a maximum vapor pressure of 7 mm Hg at 20 °C (3.75 in. H₂O at 68 °F). These cleaners also contain no HAP.

CFR 63.744(a) and (e)]

- (d) Other nonflush cleaning operations such as spray gun cleaning or hand-wipe operations where wiping, scrubbing, mopping, or other hand action is used.

[40 CFR 63.742 and 40 CFR 63.744(d)]

2.0 CONTROL REQUIREMENTS

2.1 **Flush Cleaning Operations:** The permittee shall use one of the following methods to flush clean components associated with the aerospace manufacturing and rework operations:

- (a) Use only semi-aqueous flush cleaners in which sixty (60) percent or more of the solvent solution as applied is water, or
- (b) Empty all flushed solvents into enclosed containers, collection systems, or systems with equivalent emissions controls. Collection systems shall be closed when no in use.

[40 CFR 63.744(d) and 40 CFR 63.749(c)(3)]

3.0 RECORD KEEPING

3.1 **Semi-Aqueous Cleaning Solvents:** The permittee shall keep the following information on file for all semi-aqueous cleaning solvents used for flush cleaning operations:

- (a) The name of each cleaning solvent used;
- (b) All data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements; and
- (c) Annual records of the volume of each solvent used, as determined from facility purchase records or usage records.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION D. AEROSPACE NESHAP, SUBPART GG - FLUSH CLEANING OPERATIONS

[40 CFR 63.752(b)(2)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

This subsection addresses the following activities as a single emissions unit:

EU No.	R / U*	BRIEF DESCRIPTION
073	R	Aerospace primer and topcoat applications subject to NESHAP, Subpart GG and miscellaneous support equipment refinishing (paint booths PS-2-MM and PS-10-MPA)

{Permitting Notes: Appendix NE specifies the general provisions applicable to all affected sources subject to a NESHAP. Appendix GG contains the general applicability requirements, definitions, and a description of specialty coatings for affected sources subject to NESHAP Subpart GG. This page revised on 03/04/99 to correct a typo: PS-"4"-MM to PS-"2"-MM.}

1.0 APPLICABILITY

1.1 **General Applicability:** This subpart applies to major air pollutant emitting facilities that are engaged, either in part or in whole, in the manufacture or rework of commercial, civil, or military aerospace vehicles or components.

[40 CFR 63.741(a)]

1.2 **Affected Sources:** The affected primer and topcoat application operations to which the provisions of this subpart apply are specified below. The activities subject to this subpart are limited to the manufacture or rework of aerospace vehicles or components as defined in this subpart. Where a dispute arises relating to the applicability of this subpart to a specific activity, the owner or operator shall demonstrate that the activity is not regulated under this subpart.

- (a) For organic HAP or VOC emissions, each primer application operation, which is the total of all primer applications at the facility.
- (b) For organic HAP or VOC emissions, each topcoat application operation, which is the total of all topcoat applications at the facility.
- (c) For inorganic HAP emissions, each spray booth or hangar that contains a regulated primer or topcoat application subject to the aerospace NESHAP, Subpart GG.

[40 CFR 63.741(c)]

1.3 **Exempt Activities:** This subpart does not contain control requirements for use of specialty coatings, adhesives, adhesive bonding primers, or sealants at aerospace facilities. It also does not regulate research and development, quality control, and laboratory testing activities, chemical milling, metal finishing, electrodeposition (except for electrodeposition of paints), composites processing (except for cleaning and coating of composite parts or components that become part of an aerospace vehicle or component as well as composite tooling that comes in contact with such composite parts or components prior to cure), electronic parts and assemblies (except for cleaning and topcoating of completed assemblies), manufacture of aircraft transparencies, and wastewater operations at aerospace facilities. These requirements also do not apply to parts and assemblies not critical to the vehicle's structural integrity or flight performance.

[40 CFR 63.741(f)]

1.4 **Low Volume Coating Exemption:** The requirements for primers and topcoats do not apply to the use of low-volume coatings in these categories for which the annual total of each separate formulation used at a facility does not exceed 189 liters (50 gallons), and the combined annual total of all such primers and topcoats used at a facility does not exceed 757 liters (200 gallons). Primers and topcoats exempted as "specialty coatings" are not included in the 50 and 200 gallon limits. Chemical milling maskants exempted under § 63.747(c)(3) are also not included in these limits. *{Permitting Note: This facility does not use any Type I or Type II chemical milling maskants subject to 40 CFR 63, Subpart GG.}*

[40 CFR 63.741(g)]

1.5 **Space Vehicle Exemption:** Regulated activities associated with space vehicles designed to travel beyond the limit of the earth's atmosphere, including but not limited to satellites, space stations, and the Space Shuttle System (including orbiter, external tanks, and solid rocket boosters), are exempt from the requirements of this subpart, except for depainting operations found in § 63.746.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

[40 CFR 63.741(h)]

- 1.6 Waterborne Coating Exemptions: Any waterborne coating for which the manufacturer's supplied data demonstrates that organic HAP and VOC contents are less than or equal to the organic HAP and VOC content limits for its coating type, as specified in § 63.745(c) and § 63.747(c), is exempt from the following requirements of this subpart: § 63.745(d)-(e), 63.747(d)-(e), 63.749(d) and (h), 63.750(c)-(h) and (k)-(m), 63.752(c) and (f), and 63.753(c) and (e). A facility shall maintain the manufacturer's supplied data and annual purchase records for each exempt waterborne coating readily available for inspection and review and shall retain these data for 5 years.

[40 CFR 63.741(i)]

- 1.7 Antique Aerospace Vehicle Exemption: This subpart does not apply to rework operations performed on antique aerospace vehicles or components.

[40 CFR 63.741(j)]

2.0 ORGANIC HAP AND VOC EMISSION LIMITING STANDARDS

- 2.1 Spills: The permittee shall conduct the handling and transfer of primers and topcoats to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

[40 CFR 63.745(b)]

- 2.2 Uncontrolled Coatings - Organic HAP and VOC Content Levels: The permittee shall comply with the following organic HAP and VOC content limits:

- (a) Organic HAP emissions from primers shall be limited to an organic HAP content level of no more than 350 grams per liter (2.9 pounds per gallon) of primer, less water, as applied.
- (b) VOC emissions from primers shall be limited to an VOC content level of no more than 350 grams per liter (2.9 pounds per gallon) of primer, less water and exempt solvents, as applied.
- (c) Organic HAP emissions from topcoats shall be limited to an organic HAP content level of no more than 420 grams per liter (3.5 pounds per gallon) of coating, less water, as applied. Organic HAP emissions from self-priming topcoats shall be limited to an organic HAP content level of no more than 420 grams per liter (3.5 pounds per gallon) of self-priming topcoat, less water, as applied.
- (d) VOC emissions from topcoats shall be limited to a VOC content level of no more than 420 grams per liter (3.5 pounds per gallon) of coating, less water and exempt solvents, as applied. VOC emissions from self-priming topcoats shall be limited to a VOC content level of no more than 420 grams per liter (3.5 pounds per gallon) of self-priming topcoat, less water and exempt solvents, as applied.

[40 CFR 63.745(c)]

- 2.3 Compliance Method: Compliance with the organic HAP and VOC content limits specified in this subsection shall be accomplished by using primers and topcoats (including self-priming topcoats) with HAP and VOC content levels equal to or less than the limits specified. Compliance using the averaging provisions described in § 63.743(d) would require a revision of this permit.

[40 CFR 63.749(d) and 40 CFR 63.745(e)]

- 2.4 Application Equipment:

- (a) Except for the exempt operations listed in specific condition 2.4(b), all primers and topcoats (including self-priming topcoats) shall be applied using one or more of the application techniques:
 - (1) Flow/curtain coat application;
 - (2) Dip coat application;
 - (3) Roll coating;
 - (4) Brush coating;
 - (5) Cotton-tipped swab application;
 - (6) Electrodeposition (dip) coating;
 - (7) High volume low pressure (HVLP) spraying;
 - (8) Electrostatic spray application; or

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

- (9) Other coating application methods that achieve emission reductions equivalent to HVLP or electrostatic spray application methods, as determined according to the requirements in § 63.750(i).

All application devices used to apply primers or topcoats (including self-priming_topcoats) shall be operated according to company procedures, local specified operating procedures, and/or the manufacturer's specifications, whichever is most stringent, at all times. Equipment modified by the facility shall maintain a transfer efficiency equivalent to HVLP and electrostatic spray application techniques.

[40 CFR 63.749(d) and 40 CFR 63.745(f)(1) and (2)]

- (b) The following situations are exempt from the above requirements for application equipment:
- (1) Any situation that normally requires the use of an airbrush or an extension on the spray gun to properly reach limited access spaces;
 - (2) The application of coatings that contain fillers that adversely affect atomization with HVLP spray guns and that the permitting agency has determined cannot be applied by any of the application methods specified in specific condition 2.4(a) of this subsection;
 - (3) The application of coatings that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.) and that the permitting agency has determined cannot be applied by any of the application methods specified in specific condition 2.4(a) of this subsection;
 - (4) The use of airbrush application methods for stenciling, lettering, and other identification markings;
 - (5) The use of hand-held spray can application methods; and
 - (6) Touch-up and repair operations.

[40 CFR 63.745(f)(3)]

3.0 INORGANIC HAP EMISSION LIMITING STANDARDS

- 3.1 **Applicability:** Each primer or topcoat application operation that spray applies coatings containing inorganic HAP to aerospace parts or components are subject to the following control requirements, except the following activities:

- (a) Touch-up of scratched surfaces or damaged paint;
- (b) Hole daubing for fasteners;
- (c) Touch-up of trimmed edges;
- (d) Coating prior to joining dissimilar metal components;
- (e) Stencil operations performed by brush or air brush;
- (f) Section joining;
- (g) Touch-up of bushings and other similar parts;
- (h) Sealant detackifying;
- (i) Painting parts in an area identified in a title V permit, where the permitting authority has determined that it is not technically feasible to paint the parts in a booth; and
- (j) The use of hand-held spray can application methods.

[40 CFR 63.745(g)(1) and (4)]

- 3.2 **Capture:** Apply these coatings in a booth or hangar in which air flow is directed downward onto or across the part or assembly being coated and exhausted through one or more outlets.

[40 CFR 63.745(g)(1)]

- 3.3 **Control Equipment:** For coating application operations containing inorganic HAP, the permittee shall employ one of the following control methods:

- (a) Before exhausting it to the atmosphere, pass the air stream through a waterwash system that shall remain in operation during all coating application operations, or

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

[40 CFR 63.745(g)(2)(i)(B)]

- (b) Before exhausting it to the atmosphere, pass the air stream through a dry particulate filter system certified to meet or exceed the efficiency data points in Tables 1 and 2 of § 63.745:

TABLE 1 of § 63.745.

TWO-STAGE ARRESTOR; LIQUID PHASE CHALLENGE FOR EXISTING SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, mm
> 90	> 5.7
> 50	> 4.1
> 10	> 2.2

TABLE 2 of § 63.745.

TWO-STAGE ARRESTOR; SOLID PHASE CHALLENGE FOR EXISTING SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, mm
> 90	> 8.1
> 50	> 5.0
> 10	> 2.6

Dry particulate filters must be certified by the filter manufacturer, filter distributor, paint booth supplier, and/or the permittee using EPA Method 319 in Appendix A of 40 CFR 63, Subpart A to meet or exceed the efficiency data points found in the tables above.

[40 CFR 63.745(g)(2)(i)(A) and 40 CFR 63.750(o)]

- (c) New Construction/Modification: The installation of new, or modification of existing, coating application booths subject to the inorganic HAP emissions limiting standards will require more stringent controls. The permittee shall obtain any required air pollution construction permits for the installation of new or modified equipment as well as revising this Title V operation permit. **[40 CFR 63.745(g)(2)(iii)]**

4.0 MONITORING REQUIREMENTS

- 4.1 Organic HAP and VOC Content Levels - Primer and Topcoat Application Operations: For uncontrolled coatings that are not averaged, each 24 hours is considered a performance test. For compliant and non-compliant coatings that are averaged together, each 30-day period is considered a performance test, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

[40 CFR 63.749(d)(1)]

- 4.2 Dry Particulate Filtration Systems: If a dry particulate filter system is used, the permittee shall meet the following requirements:

- (a) Maintain the system in good working order;
- (b) Install a differential pressure gauge across the filter banks;
- (c) When the booth is in use, continuously monitor the pressure drop across the filter and read and record the pressure drop once per shift; and
- (d) Shut down the operation immediately and take corrective actions when:
 - (1) The pressure drop exceeds or falls below the limits specified by the filter manufacturer or in locally prepared operating procedures; or
 - (2) The maintenance procedures specified by the manufacturer or in a locally prepared maintenance plan have not been performed.

The operation shall not be resumed until the pressure drop is returned within the specified operating range or the preventive maintenance is performed.

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[40 CFR 63.751(c)(1) and 40 CFR 63.745(g)(2)(iv), (3)]

4.3 Waterwash systems: If a waterwash system is used, continuously monitor the water flow rate and read and record the water flow rate once per shift. The permittee shall shut down the operation immediately and take corrective actions when:

- (a) The water path in the waterwash system fails the visual continuity/flow characteristics check;
- (b) The water flow rate recorded exceeds the limits specified by the booth manufacturer or in a locally prepared maintenance plan; or
- (c) The maintenance procedures specified by the manufacturer or in a locally prepared maintenance plan have not been performed.

The operation shall not be resumed until the water path passes the visual continuity/flow characteristics check, the water flow rate is returned within the specified operating range, or the preventive maintenance is performed.

[40 CFR 63.751(c)(2) and 40 CFR 63.745(g)(2)(v) and (3)]

5.0 RECORD KEEPING

5.1 Compliance Demonstration for Primer and Topcoat Application Operations - Organic HAP and VOC: The permittee shall record the following information, as appropriate.

- (a) The name and VOC content as received and as applied of each primer and topcoat used at the facility;

[40 CFR 63.752(c)(1)]

- (b) For uncontrolled primers (organic HAP content less than 350 g/l (2.9 lb/gal), less water, as applied and VOC content less than 350 g/l (2.9 lb/gal), less water and exempt solvents, as applied) and topcoats that meet the organic HAP and VOC content limits without averaging:

- (1) All data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_i and G_i ;

[40 CFR 63.752(c)(2)(ii)]

- (2) The volume (gallons) of each coating formulation within each coating category used each month.

[40 CFR 63.752(c)(2)(iii)]

- (3) The mass of organic HAP emitted per unit volume of coating as applied, less water (H_i), and the mass of VOC emitted per unit volume of coating as applied, less water and exempt solvents (G_i), for each coating formulation within each coating category used each month as calculated using the procedures specified below:

- a. *Organic HAP content level determination - compliant primers and topcoats*: For those uncontrolled primers and topcoats complying with the primer and topcoat organic HAP content limits specified in this subsection without being averaged, the following procedures shall be used to determine the mass of organic HAP emitted per volume of coating, less water, as applied. [40 CFR 63.750(c)]

1. For coatings that contain no exempt solvents, determine the total organic HAP content using manufacturer's supplied data or EPA Method 24 of 40 CFR Part 60, Appendix A, to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the EPA Method 24 analysis, compliance shall be based on the results from the EPA Method 24 analysis.
2. For each coating formulation as applied, determine the organic HAP weight fraction, water weight fraction (if applicable), and density from manufacturer's data. If these values cannot be determined using the manufacturer's data, the permittee shall submit an alternative procedure for determining their values for approval by the Administrator. Recalculation is required only when a change occurs in the coating formulation.

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3. For each coating as applied, calculate the mass of organic HAP emitted per volume of coating (pounds per gallon), less water, as applied using equations 1, 2, and 3:

$$V_{wi} = \frac{D_{ci} W_{wi}}{D_w} \quad \text{Eq. 1}$$

where:

- V_{wi} = volume (gal) of water in one gal of coating i.
- D_{ci} = density (lb of coating per gal of coating) of coating i.
- W_{wi} = weight fraction (expressed as a decimal) of water in coating i.
- D_w = density of water, 8.33 lb/gal.

$$M_{Hi} = D_{ci} W_{Hi} \quad \text{Eq. 2}$$

where:

- M_{Hi} = mass (lb) of organic HAP in one gal of coating i.
- D_{ci} = density (lb of coating per gal of coating) of coating i.
- W_{Hi} = weight fraction (expressed as a decimal) of organic HAP in coating i.

$$H_i = \frac{M_{hi}}{(1-V_{wi})} \quad \text{Eq. 3}$$

where:

- H_i = mass of organic HAP emitted per volume of coating i (lb/gal) less water as applied.
- M_{hi} = mass (lb) of organic HAP in one gal of coating i.
- V_{wi} = volume (gal) of water in one gal of coating i.

- b. *VOC content level determination - compliant primers and topcoats:* For those uncontrolled primers and topcoats complying with the primer and topcoat VOC content levels specified in this subsection without being averaged, the following procedure shall be used to determine the mass of VOC emitted per volume of coating, less water and exempt solvents, as applied. [40 CFR 63.750(e)]

1. Determine the VOC content of each formulation, less water and exempt solvents, as applied using manufacturer's supplied data or Method 24 of 40 CFR Part 60, Appendix A to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the EPA Method 24 analysis.
2. For each coating applied, calculate the mass of VOC emitted per volume of coating (lb/gal), less water and exempt solvents, as applied using equations 5, 6, and 7:

$$V_{wi} = \frac{D_{ci} W_{wi}}{D_w} \quad \text{Eq. 5}$$

where:

- V_{wi} = volume (gal) of water in one gal of coating i.
- D_{ci} = density (lb of coating per gal of coating) of coating i.
- W_{wi} = weight fraction (expressed as a decimal) of water in coating i.

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D_w = density of water, 8.33 lb/gal.

$$M_{vi} = D_{ci} W_{vi} \quad \text{Eq. 6}$$

where:

M_{vi} = mass (lb) of VOC in one gal of coating i.

D_{ci} = density (lb of coating per gal of coating) of coating i.

W_{vi} = weight fraction (expressed as a decimal) of VOC in coating I.

$$G_i = \frac{M_{vi}}{(1 - V_{wi}) - V_{xi}} \quad \text{Eq. 7}$$

where:

G_i = mass of VOC emitted per volume of coating i (lb/gal) (less water and exempt solvents) as applied.

M_{vi} = mass (lb) of VOC in one gal of coating i.

V_{wi} = volume (gal) of water in one gal of coating i.

V_{xi} = volume (gal) of exempt solvents in one gal of coating i.

3. If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by permittee in calculating G_a , compliance shall be based upon the results of EPA Method 24, except as provided in the following condition.
4. The permittee may elect to average the coating with other uncontrolled coatings and (re)calculate G_i (using the procedure specified in paragraph (f) of this section), provided appropriate and sufficient records were maintained for all coatings included in the average (re)calculation. The (re)calculated value of G_i (G_a in paragraph (f)) for the averaged coatings shall then be used to determine compliance.

[40 CFR 63.752(c)(2)(i)]

- (c) For "low HAP content" uncontrolled primers with organic HAP content less than or equal to 250 g/l (2.1 lb/gal) less water as applied and VOC content less than or equal to 250 g/l (2.1 lb/gal) less water and exempt solvents as applied:
- (1) Annual usage or purchase records of the total volume of each primer purchased; and
 - (2) All data, calculations, and test results (including EPA Method 24 results) used in determining the organic HAP and VOC content as applied. These records shall consist of the manufacturer's certification when the primer is applied as received, or the data and calculations used to determine H_i if not applied as received.

[40 CFR 63.752(c)(3)]

- (d) For primers and topcoats complying with the organic HAP or VOC content level by averaging:
- (1) The monthly volume-weighted average masses of organic HAP emitted per unit volume of coating as applied (less water) (H_a) and of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_a) for all coatings (as determined by the procedures specified in § 63.750(d) and (f)); and
 - (2) All data, calculations, and test results (including EPA Method 24 results) used to determine the values of H_a and G_a .

[40 CFR 63.752(c)(4)]

- 5.2 VOC Content Level Determination - Averaged Primers and Topcoats: For those cases in which there is a noncompliance issue because the VOC content as determined by EPA Method 24 differs from that used by the permittee in calculating G_a , the following procedure shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of coating, less water and exempt solvents:

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SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

- (a) Determine the VOC content (lb/gal) as applied of each coating. If any ingredients, including diluent solvent, are added to a coating prior to its application, the VOC content of the coating shall be determined at a time and location in the process after all ingredients have been added. [40 CFR 63.750(f)(1)(i)]
- (b) Determine the VOC content of each coating as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.
- (1) If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the VOC content of the coating, the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.
- (2) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the VOC content of the coating, the VOC content of the coating shall be redetermined.
- [40 CFR 63.750(f)(1)(ii)]
- (3) Determine the VOC content of each primer and topcoat formulation (less water and exempt solvents) as applied using EPA Method 24 or from manufacturer's data.
- [40 CFR 63.750(f)(1)(iii)]
- (c) Determine the volume both in total gallons as applied and in total gallons (less water and exempt solvents) as applied of each coating. If any ingredients, including diluent solvents, are added prior to its application, the volume of each coating shall be determined at a time and location in the process after all ingredients (including any diluent solvent) have been added.
- (1) Determine the volume of each coating (less water and exempt solvents) as applied each day.
- (2) The volume applied may be determined from company records.
- [40 CFR 63.750(f)(2)]
- (d) Calculate the total volume in gallons (less water and exempt solvents) as applied by summing the individual volumes of each coating (less water and exempt solvents) as applied, which were determined under paragraph (f)(2) of this section.
- [40 CFR 63.750(f)(3)]
- (e) Calculate the volume-weighted average mass of VOC emitted per unit volume (lb/gal) of coating (less water and exempt solvents) as applied for each coating category during each 30-day period using equation 8:

[40 CFR 63.750(f)(4)]

$$G_a = \frac{\sum_{i=1}^n (\text{VOC})_{ci} V_{ci}}{C_{l\text{wes}}} \quad \text{Eq. 8}$$

where:

- G_a = volume weighted average mass of VOC per unit volume of coating (lb/gal) (less water and exempt solvents) as applied during each 30-day period for those coatings being averaged.
- n = number of coatings being averaged.
- $(\text{VOC})_{ci}$ = VOC content (lb/gal) of coating i (less water and exempt solvents) as applied (as determined using the procedures specified in paragraph (f)(1) of this section) that is being averaged during the 30-day period.
- V_{ci} = volume (gal) of coating i (less water and exempt solvents) as applied that is being averaged during the 30-day period.
- $C_{l\text{wes}}$ = total volume (gal) of all coatings (less water and exempt solvents) as applied during each 30-day period for those coatings being averaged.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

- (f) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a , recalculation of G_a is required using the new value. If more than one coating is involved, the recalculation shall be made once using all of the new values.

[40 CFR 63.750(f)(5)(i)]

- (1) If recalculation is required, an owner or operator may elect to include in the recalculation of G_a uncontrolled coatings that were not previously included provided appropriate and sufficient records were maintained for these other coatings to allow daily recalculations. **[40 CFR 63.750(f)(5)(ii)]**
- (2) The recalculated value of G_a under either paragraph (f)(5)(i) or (f)(5)(ii) of this section shall be used to determine compliance.

[40 CFR 63.750(f)(5)(iii)]

5.3 Primer and topcoat application operations - inorganic HAP emissions:

- (a) For each dry particulate filter system or a HEPA filter system used to comply with the emissions limiting standards of this subsection, the permittee shall record the pressure drop across the operating system once each shift during which coating operations occur.

[40 CFR 63.752(d)(1)]

- (b) For each waterwash system used to comply with the emission limiting standards of this subsection, the permittee shall record the water flow rate through the operating system once each shift during which coating operations occur.

[40 CFR 63.752(d)(2)]

- (c) This log shall include the acceptable limits of pressure drop or water flow rate, as applicable, as specified by the filter or booth manufacturer or in locally prepared operating procedures.

[40 CFR 63.752(d)(3)]

- (d) Dry particulate filter systems used to comply with the inorganic HAP emissions limiting standards specified in this permit must be certified by the filter manufacturer or distributor, paint/depainting booth supplier, and/or the facility owner or operator using EPA Method 319 in 40 CFR 62, Appendix A of subpart A, to meet or exceed the efficiency data points found in Tables 1 and 2 of this permit subsection.

[40 CFR 63.75(o)]

5.4 Startup, Shutdown, and Malfunction Plans: The permittee shall prepare a plan for the startup, shutdown, and malfunction procedures for all control equipment used to comply with the inorganic HAP emissions limiting standards. These plans shall include:

- (a) In addition to the information required in § 63.6, this plan shall also include the following provisions:
- (b) The plan shall specify the operation and maintenance criteria for each air pollution control device or equipment and shall include a standardized checklist to document the operation and maintenance of the equipment;
- (c) The plan shall include a systematic procedure for identifying malfunctions and for reporting them immediately to supervisory personnel; and
- (d) The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.

[40 CFR 63.743(b)]

6.0 REPORTING

- 6.1 Semiannual Reports:** The permittee shall submit a semiannual report summarizing the compliance status of each aerospace coating application booth during the 6 month reporting period. These reports shall be submitted as a part of the facility-wide "Semiannual Monitoring Reports" due before March 1st and September 1st of each year. The reports shall include:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION E. AEROSPACE NESHAP, SUBPART GG - PRIMER AND TOPCOAT APPLICATION OPERATIONS

- (a) For primers and topcoats where compliance is not being achieved through the use of averaging or a control device, each value of H_i and G_i , as recorded under § 63.752(c)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);
- (b) For primers and topcoats where compliance is being achieved through the use of averaging, each value of H_a and G_a , as recorded under § 63.752(c)(4)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);
- (c) All times when a primer or topcoat application operation was not immediately shut down when the pressure drop across a dry particulate filter or HEPA filter system, or the water flow rate through a waterwash system, as appropriate, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures;
- (d) If the operations have been in compliance for the semiannual period, a statement that the operations have been in compliance with the applicable standards; and,

[40 CFR 63.753(c)(1)]

- 6.2 **Annual Reports on Particulate Matter Controls:** The permittee shall submit an annual report listing the number of times the pressure drop for each dry filter or the water flow rate for each waterwash system was outside the limits specified by the filter or booth manufacturer or in locally prepared operating procedures. This report shall be submitted with the required Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C.

[40 CFR 63.753(c)(2)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION F. AEROSPACE NESHAP, SUBPART GG - WASTE STORAGE AND HANDLING OPERATIONS

This subsection addresses the following activities as a single emissions unit:

EU NO.	R / U*	BRIEF DESCRIPTION
074	R	Aerospace waste storage and handling operations subject to NESHAP, Subpart GG

{Permitting Note: Appendix NE specifies the general provisions applicable to all affected sources subject to a NESHAP. Appendix GG contains the general applicability requirements, definitions, and a description of specialty coatings for affected sources subject

1.0 APPLICABILITY

1.1 **RCRA Exemption:** All wastes that are determined to be hazardous wastes under the Resource Conservation and Recovery Act of 1976 (PL 94-580) (RCRA) as implemented by 40 CFR parts 260 and 261, and that are subject to RCRA requirements as implemented in 40 CFR parts 262 through 268, are exempt from the requirements of this subpart.

[40 CFR 63.741(e)]

2.0 STANDARDS FOR HANDLING AND STORAGE OF WASTE

2.1 **Spills:** For waste containing HAP, the permittee shall conduct the handling and transfer of such waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills. This does not apply to RCRA wastes as described above.

[40 CFR 63.748]

2.2 **Violations:** For those wastes subject to this subpart, failure to comply with the requirements specified in 40 CFR 63.748 shall be considered a violation.

[40 CFR 63.749(i)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION G. FUEL STORAGE TANKS SUBJECT TO NSPS, SUBPART Kb

This subsection addresses the following emissions units:

EU No.	R / U*	BRIEF DESCRIPTION
012	R	One million gallon jet fuel, floating roof storage tank (F-8-CFF) located in the Test Area fuel farm; constructed during 1986 <u>SCC #4-03-011-11</u> : jet fuel, standing loss <u>SCC #4-03-001-18</u> : jet fuel, withdrawal loss
031	R	Two 20,000 gallon, above ground, fixed roof, diesel storage tanks (DL-19-SEGF and DL-20-SEGF) located in the Test Area near the FPL "Pratt Whitney" substation; constructed during 1989 <u>SCC #4-03-010-19</u> : diesel, breathing loss <u>SCC #4-03-010-21</u> : diesel, working loss

1.0 AIR POLLUTION CONTROL EQUIPMENT AND METHODS

1.1 Special Requirements: For EU 012 (storage tank F-8-CFF), the permittee shall:

- (a) Paint the roof and shell of the tank white and maintain the paint in good condition.
[Permit No. AC50-068727 issued July 21, 1983]
- (b) Store only petroleum liquids with a vapor pressure of 0.75 psi (5.2 kPa) or less, as stored.
[Permit No. AC50-068727 issued July 21, 1983; 40 CFR 60.116b(b)(d); and Applicant Request]
- (c) Repair leaks in the storage tank or associated piping as expeditiously as possible.
[Permit No. AC50-068727 issued July 21, 1983]

2.0 COMPLIANCE MONITORING REQUIREMENTS

2.1 Fuel Records: The permittee shall be able to track the actual amount of fuel throughput for these emissions units, reportable on an annual basis in the Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C. All records shall be maintained on site at the facility.

[Rule 62-210.370(3), F.A.C.]

2.2 NSPS, Subpart Kb Records:

- (a) *EU 012 (F-8-CFF)*: The permittee of each storage vessel either with a design capacity greater than or equal to 40,000 gallons (151 m³) storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psi (5.2 kPa) shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure value.
[40 CFR 60.116b(d)]
- (b) *EU 031 (DL-19-SEGF and DL-20-SEGF)*: The permittee shall keep readily accessible records showing the dimension of the storage tanks and an analysis showing the capacity of each storage vessel. Each storage vessel with a design capacity of less than 20,000 gallons (75 m³) is subject to *no other provision* of 40 CFR 60, Subpart Kb.
[40 CFR 60.116b(b)]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION H. SMALL BOILERS SUBJECT TO BACT DETERMINATION

This subsection addresses the following emissions units:

EU No.	R / U*	BRIEF DESCRIPTION
016	R	Boiler (BO-12-E6) with a heat input rate of 42 mmBTU per hour located in Test Area E; Scotch Marine Model 100 HP <u>SCC #1-02-006-02</u> : natural gas, external combustion <u>SCC #1-02-009-01</u> : jet fuel, external combustion
022	R	Two boilers (BO-1-MBH, BO-2-MBH) each with a heat input rate of 54 mmBTU per hour located in the Manufacture Area; Superior Model 300-HSGL <u>SCC #1-02-006-02</u> : natural gas, external combustion
066	R	Boiler (BO-14-E8) with a heat input rate of 7 mmBTU per hour located in the Test Area E; 200 Hp Johnson Model No. PFT-A200-4P300-S <u>SCC #1-03-010-02</u> : propane, external combustion
067	R	Boiler (BO-3-MDL) with a heat input rate of 1 mmBTU per hour located in the Manufacture Area <u>SCC #1-03-006-03</u> : natural gas, external combustion

1.0 EMISSION LIMITING AND PERFORMANCE STANDARDS

1.1 Visible Emissions from any boiler shall not exceed 20 percent opacity except for one, two-minute period per hour during which the opacity shall not exceed 40 percent.

[Rule 62-296.406(1), F.A.C. and Applicant Request]

1.2 Particulate Matter and Sulfur Dioxide shall be limited by using only natural gas, propane, or a fuel containing no more than 0.05% sulfur by weight.

[Rule 62-296.406(2), F.A.C., Applicant Request, and DEP Small Boiler BACT Determination (Appendix B)]

1.3 Unrestricted Hours of Operation: The hours of operation for the boilers are not are not limited (8760 hours per year).

[Rules 62-4.160(2), 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

2.0 COMPLIANCE MONITORING REQUIREMENTS

2.1 Fuel Log: The permittee shall demonstrate compliance with the sulfur limits by obtaining a fuel analysis from the vendor for each purchase of fuel. The permittee shall maintain a written log of the date of delivery, quantity of fuel delivered, and the fuel sulfur content. For all boilers burning pipeline natural gas, a quarterly typical analysis indicating the sulfur content is sufficient to demonstrate compliance with this condition. The permittee shall be able to track the actual amount of fuel consumption for these emissions units, reportable on an annual basis. All records shall be maintained on site at the facility.

[Rule 62-4.070(3), F.A.C. and Periodic Monitoring]

2.2 Visible Emissions Test: To determine compliance with the visible emissions standards, the permittee shall conduct DEP Method 9, *Visual Determination of the Opacity of Emissions from Stationary Sources*, Rule 62-297.420, F.A.C., for each boiler. Visible emissions tests shall be performed in accordance with this test method and the following conditions:

- (a) Visible emissions shall be observed directly above boiler stack outlet.
- (b) A test for each boiler shall be conducted annually between April 1st and June 1st, of each year.
- (c) Each test shall be conducted for at least 60 minutes.
- (d) During each test, the permittee shall monitor and record the heat input or fuel consumption rate of the boiler.
- (e) Each test shall be conducted between 90% and 100% of the maximum design boiler heat input rate.

[Rules 297.310(2), 62-297.310(4)(a)2., 62-297.310(7)(a)1., 62-297.330(1)(b), and 62-297.350, F.A.C.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION H. SMALL BOILERS SUBJECT TO BACT DETERMINATION

3.0 REPORTS REQUIRED

- 3.1 DEP Method 9 Test Report: Within 45 days of conducting a visible emissions test, the permittee shall submit a test report to the Health Department that includes the following items:
- (a) Copy of the visible emissions observation form and certification of the observer;
 - (b) Highest 2-minute average opacity;
 - (c) Highest 6-minute average opacity, excluding the highest 2-minute period;
 - (d) Each 6-minute average opacity, excluding the highest 2-minute period, exceeding 20% opacity;
 - (e) Heat input rate in mmBTU per hour; and
 - (f) Type of fuel used during test and sulfur content in percent by weight.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION I. EMERGENCY ELECTRICAL GENERATORS SUBJECT TO NOx RACT

This subsection addresses the following equipment as a single emissions unit:

EU No.	R / U*	BRIEF DESCRIPTION
068	R	8 emergency electrical generators located near Test Area B, consisting of: <ul style="list-style-type: none"> • 16 identical diesel engines, Detroit Diesel Model #32V-149-TIB-3200; • Each engine consumes approximately 109.2 gallons of diesel fuel per hour; and • A pair of engines powers a single generator for emergency electrical power demands. <u>SCC #2-02-001-02</u> : Internal combustion, diesel

{Permitting Note: In a letter dated August 10, 1989, the Department of Environmental Regulation exempted the emergency generators from the requirement to obtain an air permit based on Rule 17-2.210(3)(t), F.A.C. which exempted all diesel emergency generators. Later this rule was revised [Rule 62-210.300, F.A.C.] to exempt only those diesel emergency generators that operated less than 400 hours per year. So, the units remained exempt from air permitting requirements. Subsequently, the Department developed major source NOx RACT regulations [Rule 62-296.570, F.A.C.] which included a NOx RACT emission limiting standard for "oil-fired diesel generating units". Although this facility was major for NOx, the applicability portion of the rule [Rule 62-296.570(1)(b), F.A.C.] stated that requirements did not apply to emissions units exempt in accordance with Rule 62-210.300, F.A.C. Finally, the Department revised Rule 62-210.300(3)(a)20., F.A.C. to exempt only those diesel generators consuming more than 32,000 gallons of diesel fuel per year. In the initial Title V application, the applicant specifically requests a limit of less than 400 hours per year.}

1.0 EMISSION LIMITING AND PERFORMANCE STANDARDS

1.1 NOx RACT Limit: Emissions of nitrogen oxides (NOx) from any oil-fired diesel generator shall not exceed 4.75 pounds per million BTU. This emission limit shall apply at all times except during periods of startup, shutdown, or malfunction, as provided by Rule 62-210.700, F.A.C.

[Rule 62-296.570(4)(a)2., (b)7., and (c), F.A.C.]

1.2 Allowable Fuel: Fuel shall be limited to diesel containing no more than 0.05% sulfur by weight.

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C.]

1.3 Hours of Operation: The permittee shall not operate any engine for more than 399 hours per consecutive 12 months, rolling total. This permit must be modified prior to operation beyond this limit. Engines operating more than 400 hours per year shall be tested for nitrogen oxide emissions.

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

2.0 COMPLIANCE MONITORING REQUIREMENTS

2.1 Compliance Test Method: EPA Method 7 shall be used to determine compliance with the emission limiting standard for nitrogen oxides. See *Appendix T* for applicable Florida Test Methods and Procedures.

[Rule 62-296.570(4)(a)3., F.A.C.]

2.2 Testing Frequency: The permittee shall conduct annual emission testing for each engine operating on oil for 400 hours or more during each federal fiscal year (October 1st to September 30th). Engines operating on oil for less than 400 hours during the federal fiscal year need not be tested.

[Rule 62-296.570(4)(a)3., F.A.C.]

3.0 RECORDS

3.1 Fuel Records: The permittee shall be able to track the actual amount of fuel throughput for this emission unit, reportable on an annual basis in the Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C. All records shall be maintained on site at the facility.

[Rule 62-210.370(3), F.A.C.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION J. MISCELLANEOUS SPRAY BOOTHS

This subsection addresses the following emissions units:

EU No.	R / U*	BRIEF DESCRIPTION
014	R	Paint spray booth (PS-1-ERS) placed in open hanger with no forced exhaust or filtration located in the rocket support Test Area E; used to <i>refinish</i> metal parts of support equipment <u>SCC #4-02-999-96</u> : tons of solvent
035	R	Pattern shop environmental control booth (ECB-1-MPA) with panel filter located in Manufacture Area; Binks Model CA-528-TLH; used to apply adhesives and resins to wood laminate prototypes <u>SCC #4-02-999-96</u> : tons of solvent
044	R	Paint spray booth (PS-4-MM) with waterwash system located in the Manufacture Area; Devilbiss Turbo Clean; used to <i>refinish</i> metal parts of support equipment <u>SCC #4-02-999-96</u> : tons of solvent
064	R	Paint spray booth (PSB-1-RTF) with panel filter located in the Remote Test Facility; used to <i>refinish</i> metal parts of support equipment or coat prototype, nonproduction parts. <u>SCC #4-02-999-96</u> : tons of solvent

{Permitting Note: Because these emissions units are not directly related to aerospace vehicles or components, they are not covered by the NESHAP, Subpart GG, which regulates aerospace manufacturing and rework activities. Because they are only used to refinish metal components of support equipment, they are not subject to the VOC RACT Rule 62-296.513, F.A.C.}

1.0 AIR POLLUTION CONTROL EQUIPMENT AND METHODS

1.1 Particulate Control: Particulate matter emissions from paint overspray shall be controlled by:

- (a) *EU 014*: Confining painting to spray booth located in large, enclosed hanger. Hanger door may be open for ventilation as long as particulate matter emissions remain confined.
- (b) *EUs 035, and 064*: Forced exhaust from each spray booth through mat or panel filters.
- (c) *EU 044*: Forced exhaust from booth through waterwash particulate control system.

[Rule 62-4.070(1), F.A.C.]

2.0 EMISSION LIMITING AND PERFORMANCE STANDARDS

2.1 Operational Restrictions:

- (a) The hours of operation for these emissions units are not limited (8760 hours per year).

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

- (b) Emissions of volatile organic compounds (VOC) from the spray booths shall not exceed:

- (1) *EU 014 (PS-1-ERS)*: 11.50 tons of VOC per consecutive 12 months, rolling total.

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

- (2) *EU 035 (ECB-1-MPA)*: 1.80 tons of VOC per consecutive 12 months, rolling total.

[Permit No. AC50-181702 and Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C.]

- (3) *EU 048 (PS-4-MM)*: 1.65 tons of VOC per consecutive 12 months, rolling total.

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

- (4) *EU 064 (PSB-1-RTF)*: 800 pounds per month nor 2.84 tons per year.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION J. MISCELLANEOUS SPRAY BOOTHS

[Rule 62-296.500(3)(b), F.A.C. and Permit No. 168734]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION J. MISCELLANEOUS SPRAY BOOTHS

3.0 COMPLIANCE MONITORING REQUIREMENTS

3.1 **VOC Content:** The volatile organic compound (VOC) content of all coatings, thinners, and cleaners shall be determined by the Manufacturer Safety Data Sheets (MSDS), EPA Method 24, or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.

[Rule 62-4.070(3), F.A.C.]

3.2 **Daily Spray Log:** For each day of operation, the permittee shall record the following information in a written log:

- (a) Date of operation;
- (b) Identification of each VOC-containing material used (i.e., paints, thinners, cleaners, resins, adhesives, etc.); and
- (c) Quantity of each VOC-containing material used to nearest tenth of a gallon.

[Rule 62-4.070(3), F.A.C.]

3.3 **Monthly Operations Log:** The permittee shall demonstrate compliance with the VOC usage limits on a monthly basis by keeping a written log of the operations. Prior to the 10th calendar day of each month, the permittee shall calculate and record the following information for the previous month of operation:

- (a) Month of operation.
- (b) Type and quantity of each VOC-containing material used during the previous month which contains VOC.
- (c) Calculated emissions of VOC for the previous month and for the previous consecutive 12 months, rolling total. Calculations are to assume that 100% of the solvents in the coatings, thinners, and cleaners used will evaporate into the atmosphere and shall be consistent with the following generic equation:

$$E^M = \sum(U^M \times D \times C)$$

Where:

E^M = Calculated VOC emissions for a given month reported to the nearest hundredth of a ton

\sum = Sum of the products of the coatings, thinners, and cleaners

U^M = Usage of coating, thinner, or cleaner for a given month reported from the daily spray log

D = Density of coating, thinner, or cleaner reported from MSDS

C = VOC content of coating, thinner, or cleaner reported from MSDS

The actual equations and calculations are left to the discretion of the permittee, but must meet the basic intent of the calculation described above. For example, calculation and summary by a computer spreadsheet or database is acceptable as long as the calculations are consistent with the methodology specified in this section.

[Rule 62-4.070(3), F.A.C. and Periodic Monitoring]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION K. UNREGULATED EMISSIONS UNITS

This subsection addresses the following "unregulated" emissions units:

EU No.	R / U*	BRIEF DESCRIPTION		
001	U	Air compressor/heater (ACHR-2-B2) with a design heat input rate of 264 mmBTU per hour located in Test Area B <u>SCC #2-04-003-02</u> : turbine diesel or kerosene combustion, > 100 mmBTU per hour		
009	U	Miscellaneous diesel storage tanks located throughout the facility, including: <u>SCC #4-03-010-19</u> : diesel, breathing loss <u>SCC #4-03-010-21</u> : diesel, working loss <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • (DL-1-MFP): 540 gallon diesel tank • (DL-5-SIKTFP): 250 gallon diesel tank • (DL-7-CFP): 350 gallon diesel tank • (DL-8-ESFP): 550 gallon diesel tank • (DL-10-ENFP): 1000 gallon diesel tank • (DL-16-C11FP): 250 gallon diesel tank • (DL-18-C14FP): 300 gallon diesel tank • (DL-22-RTF): 350 gallon diesel tank • (DL-4-MCP): 550 gallon diesel tank • (DL-21-C14): 5 gallon diesel tank </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • (DL-12-AOBFP): 250 gallon diesel tank • (DL-2-MMG): 1000 gallon diesel tank • (DL-5-MWG): 1000 gallon diesel tank • (DL-9-MDLG): 1000 gallon diesel tank • (DL-11-AOBG): 250 gallon diesel tank • (DL-13-MHT): 2500 gallon diesel tank • (DL-14-MMOD): 250 gallon diesel tank • (DL-15-OATL): 250 gallon diesel tank • (DL-8-MM): 20,000 gallon diesel tank </td> </tr> </table> <p><i>{Permitting Note: The total storage capacity for this group of tanks is 30,645 gallons.}</i></p>	<ul style="list-style-type: none"> • (DL-1-MFP): 540 gallon diesel tank • (DL-5-SIKTFP): 250 gallon diesel tank • (DL-7-CFP): 350 gallon diesel tank • (DL-8-ESFP): 550 gallon diesel tank • (DL-10-ENFP): 1000 gallon diesel tank • (DL-16-C11FP): 250 gallon diesel tank • (DL-18-C14FP): 300 gallon diesel tank • (DL-22-RTF): 350 gallon diesel tank • (DL-4-MCP): 550 gallon diesel tank • (DL-21-C14): 5 gallon diesel tank 	<ul style="list-style-type: none"> • (DL-12-AOBFP): 250 gallon diesel tank • (DL-2-MMG): 1000 gallon diesel tank • (DL-5-MWG): 1000 gallon diesel tank • (DL-9-MDLG): 1000 gallon diesel tank • (DL-11-AOBG): 250 gallon diesel tank • (DL-13-MHT): 2500 gallon diesel tank • (DL-14-MMOD): 250 gallon diesel tank • (DL-15-OATL): 250 gallon diesel tank • (DL-8-MM): 20,000 gallon diesel tank
<ul style="list-style-type: none"> • (DL-1-MFP): 540 gallon diesel tank • (DL-5-SIKTFP): 250 gallon diesel tank • (DL-7-CFP): 350 gallon diesel tank • (DL-8-ESFP): 550 gallon diesel tank • (DL-10-ENFP): 1000 gallon diesel tank • (DL-16-C11FP): 250 gallon diesel tank • (DL-18-C14FP): 300 gallon diesel tank • (DL-22-RTF): 350 gallon diesel tank • (DL-4-MCP): 550 gallon diesel tank • (DL-21-C14): 5 gallon diesel tank 	<ul style="list-style-type: none"> • (DL-12-AOBFP): 250 gallon diesel tank • (DL-2-MMG): 1000 gallon diesel tank • (DL-5-MWG): 1000 gallon diesel tank • (DL-9-MDLG): 1000 gallon diesel tank • (DL-11-AOBG): 250 gallon diesel tank • (DL-13-MHT): 2500 gallon diesel tank • (DL-14-MMOD): 250 gallon diesel tank • (DL-15-OATL): 250 gallon diesel tank • (DL-8-MM): 20,000 gallon diesel tank 			
010	U	Miscellaneous jet fuel storage tanks located throughout the facility, including: <u>SCC #4-03-011-11</u> : jet fuel, standing loss <u>SCC #4-03-001-18</u> : jet fuel, withdrawal loss <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • (F-1-CFF): 1,000,000 gallon jet fuel tank • (F-3-CFF): 150,000 gallon jet fuel tank • (F-4-CFF): 150,000 gallon jet fuel tank • (F-5-CFF): 1,000,000 gallon jet fuel tank • (F-7-A): 10,000 gallon salvage jet fuel tank • (F-17-B2): 7,000 gallon jet fuel tank • (F-45-A1): 10,000 gallon jet fuel tank • (F-35E-BO): 8,000 gallon jet fuel tank • (F-37-C11): 275 gallon jet fuel tank </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • (F-39-C14): 275 gallon jet fuel tank • (F-40-C12): 275 gallon jet fuel tank • (F-41-D): 8,000 gallon jet fuel tank • (F-42-B): 10,000 gallon jet fuel tank • (F-43-B): 10,000 gallon jet fuel tank • (F-44): 8,000 gallon jet fuel tank • (F-46-B): 1,000 gallon jet fuel tank • (F-14-RSR): 2,000 gallon jet fuel tank • (F-28-R): 10,000 gallon jet fuel tank </td> </tr> </table> <p><i>{Permitting Note: The total storage capacity for this group of tanks is 2,384,825 gallons.}</i></p>	<ul style="list-style-type: none"> • (F-1-CFF): 1,000,000 gallon jet fuel tank • (F-3-CFF): 150,000 gallon jet fuel tank • (F-4-CFF): 150,000 gallon jet fuel tank • (F-5-CFF): 1,000,000 gallon jet fuel tank • (F-7-A): 10,000 gallon salvage jet fuel tank • (F-17-B2): 7,000 gallon jet fuel tank • (F-45-A1): 10,000 gallon jet fuel tank • (F-35E-BO): 8,000 gallon jet fuel tank • (F-37-C11): 275 gallon jet fuel tank 	<ul style="list-style-type: none"> • (F-39-C14): 275 gallon jet fuel tank • (F-40-C12): 275 gallon jet fuel tank • (F-41-D): 8,000 gallon jet fuel tank • (F-42-B): 10,000 gallon jet fuel tank • (F-43-B): 10,000 gallon jet fuel tank • (F-44): 8,000 gallon jet fuel tank • (F-46-B): 1,000 gallon jet fuel tank • (F-14-RSR): 2,000 gallon jet fuel tank • (F-28-R): 10,000 gallon jet fuel tank
<ul style="list-style-type: none"> • (F-1-CFF): 1,000,000 gallon jet fuel tank • (F-3-CFF): 150,000 gallon jet fuel tank • (F-4-CFF): 150,000 gallon jet fuel tank • (F-5-CFF): 1,000,000 gallon jet fuel tank • (F-7-A): 10,000 gallon salvage jet fuel tank • (F-17-B2): 7,000 gallon jet fuel tank • (F-45-A1): 10,000 gallon jet fuel tank • (F-35E-BO): 8,000 gallon jet fuel tank • (F-37-C11): 275 gallon jet fuel tank 	<ul style="list-style-type: none"> • (F-39-C14): 275 gallon jet fuel tank • (F-40-C12): 275 gallon jet fuel tank • (F-41-D): 8,000 gallon jet fuel tank • (F-42-B): 10,000 gallon jet fuel tank • (F-43-B): 10,000 gallon jet fuel tank • (F-44): 8,000 gallon jet fuel tank • (F-46-B): 1,000 gallon jet fuel tank • (F-14-RSR): 2,000 gallon jet fuel tank • (F-28-R): 10,000 gallon jet fuel tank 			
015	U	Closed-loop halogenated flush cleaning processes located in the RL-10 Test Area E consisting of: <ul style="list-style-type: none"> • (BF-1-RL-10): Backflushing of rocket engines located in Manufacture Area • (SOL-1-CTJ and C&F-1-ERS) tube cleaning near test area <u>SCC #4-01-003-06</u> : trichloroethylene <p><i>{Permitting Note: Although these cleaning processes use trichloroethylene, a halogenated solvent and regulated volatile organic compound, they are completely closed loop systems. Therefore, the units are not subject to the requirements of the NESHAP, Subpart T, regulating halogenated solvent cleaners. Because these activities relate to the components of space vehicles, they are not covered by NESHAP, Subpart GG, regulating aerospace manufacturing and rework. In addition, these activities are exempt from the requirements of VOC RACT for degreasers [Rule 62-296.511, F.A.C.] because the combined emissions do not exceed 3 pounds per hour nor more than 15 pounds per day in accordance with Rule 62-296,500(3)(a), F.A.C. The Health Department determines this emissions unit "unregulated".}</i></p>		
018	U	Sodium alkali scrubbing system (AS-2-MPL) with an estimated scrubbing efficiency of 98% located in		

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION K. UNREGULATED EMISSIONS UNITS

	the Manufacture Area; Ceilcote Model #VCP-78; controls nickel and silver plating operations
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SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION K. UNREGULATED EMISSIONS UNITS

021	U	Sodium alkali scrubbing system (AS-15-MPL) with a scrubbing efficiency of 98% located in the Manufacture Area; Harrison Model #CC220; controls nickel and silver plating operations
037	U	Miscellaneous above ground gasoline storage tanks located throughout the facility: <u>SCC #4-04-002-02</u> : gasoline (RVP-10), breathing loss <u>SCC #4-04-002-05</u> : gasoline (RVP-10), working loss <ul style="list-style-type: none"> • Tank (GA-3-MM): 20,000 gallon gasoline; constructed prior to NSPS date of 06-11-73 • Tank (GA-4-MM): 20,000 gallon gasoline; constructed prior to NSPS date of 06-11-73 • Tank (GA-1R-TAB): 10,000 gallon gasoline; constructed prior to NSPS date of 06-11-73 <i>{Permitting Note: The total storage capacity for this group of tanks is 50,000 gallons. }</i>
040	U	Two heat treatment furnaces (FU-3-MHT and FU-4-MHT), each with a heat input rate of 6 mmBTU per hour located in the Manufacture Area; both are Sunbeam box-type furnaces <u>SCC #1-02-006-02</u> : natural gas combustion, < 10 mmBTU per hour
045	U	Water evaporator (EV-1-MW) with a heat input rate of 0.2 mmBTU per hour located in the Manufacture Area; Samsco Model #Dayton 2C820 <u>SCC #5-03-900-06</u> : natural gas combustion, < 10 mmBTU per hour
053	U	Dust collector (DC-1-MM), Rotocloner Size #16 located in the Manufacture Area <u>SCC #3-07-030-02</u> : tons of wood waste
059	U	Miscellaneous air and fuel heaters located in the Test Area, including: <u>SCC #1-03-006-02</u> : natural gas combustion, < 10 mmBTU per hour Air heater (HR-22-D1) with a design heat input rate of 7 mmBTU per hour, Test Area D Air heater (HR-23-D3) with a design heat input rate of 4 mmBTU per hour, Test Area D Air heater (HR-26-D4) with a design heat input rate of 4 mmBTU per hour, Test Area D Air heater (HR-27-D5) with a design heat input rate of 4 mmBTU per hour, Test Area D Air heater (HR-28-D7) with a design heat input rate of 6 mmBTU per hour, Test Area D Air heater (HR-29-A4) with a design heat input rate of 7 mmBTU per hour, Test Area A <u>SCC #1-03-006-03</u> : natural gas combustion, 10 to 100 mmBTU per hour Air heater (HR-17-D2) with a design heat input rate of 15 mmBTU per hour, Test Area D Fuel heater (HR-1-A9) with a design heat input rate of 16 mmBTU per hour, Test Area A
063	U	Dust collector (DC-1-RTF) located in the Test Area <u>SCC #3-07-030-02</u> : tons of wood waste
065	U	Diesel engines powering fire protection pumps and cooling water pumps during rocket engine testing
069	U	10 existing jet engine test stands, consisting of: <ul style="list-style-type: none"> • 6 stands for testing military aircraft engines located at the west end plant site of Test Area A (A-03, A-04, A-05, A-08, A-09, and A-10) • 4 stands for testing commercial aircraft engines located at the west end plant site of Test Area A (C-10, C-11, C-12, and C-14) • The stands are estimated to operate approximately 10,000 engine hours and consume approximately 12 million gallons of jet fuel. <i>{Permitting Note: The jet engine test stands were constructed prior to the PSD baseline date. In the early 1970s, several test stands were issued air pollution "operation" permits which described the stands and estimated emissions, but did not limit operation. In a January 16, 1980 letter, the Department of Environmental Regulation made the following determination for the existing jet engine test stands:</i>

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS
SUBSECTION K. UNREGULATED EMISSIONS UNITS

069	U	<ul style="list-style-type: none"> • <i>The Department would not require air pollution permits for the individual test stands nor the relocatable jet engines.</i> • <i>The Department would not specify conditions in other permits that would affect the scheduling or utilization of individual test stands or relocatable jet engines.</i> • <i>The Department would require Pratt & Whitney to report jet fuel consumption on a facility-wide basis. The main concern at this time was reporting an accurate emissions inventory for the purpose of tracking "reasonable further progress" towards attainment of the ozone standard.</i> <p><i>However, recent guidance from the EPA (listed below) indicates that jet engine test stands are considered to be stationary sources of air pollution.</i></p> <p><u>12-31-95:</u> <i>EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells</i></p> <p><u>03-12-96:</u> <i>EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells</i></p> <p><u>09-23-96:</u> <i>EPA-APT to Mr. John R. McDowell, PE: Title V Applicability Issues Related to the Cincinnati/Northern Kentucky International Airport</i></p> <p><i>Therefore, the Health Department establishes the jet engine test stands as existing, "unregulated" stationary emissions units with no limits on operation.}</i></p>
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1.0 AIR POLLUTION CONTROL EQUIPMENT

1.1 **Controls:** The permittee shall install, operate, and maintain any existing air pollution control equipment in accordance with the manufacturer's instructions and recommendations. The air pollution control equipment shall be on line and functioning properly when operating the emissions units generating activity.

[Rules 62-210.650, F.A.C.]

2.0 PERFORMANCE STANDARDS

2.1 **Hours of Operation:** The hours of operation of these emissions units are not limited (8760 hours per year).

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

2.2 **Allowable Fuels:** Fuel combustion is limited to only those fuels listed in the above description of each emissions unit.

[Rules 62-4.160(2) and 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]

3.0 COMPLIANCE MONITORING REQUIREMENTS

3.1 **Records:** The permittee shall be able to track the actual activity level for each emissions unit, reportable on an annual basis in accordance with the Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C. Activities include fuel combustion (including test stands), fuel throughput, raw material usage, etc.

[Rule 62-210.370(3), F.A.C.]

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Name	Modified	Size	Ratio	Packed	Path
Read_me.doc	3/4/1999 2:44 PM	9,728	78%	2,124	
0021_SOB.doc	9/8/1998 1:52 PM	43,520	79%	9,115	
0990021f.doc	3/4/1999 2:44 PM	164,289	72%	46,258	
0990021f.old	1/6/1999 9:35 AM	192,512	72%	54,413	
0990021N.doc	1/5/1999 11:47 AM	47,616	82%	8,666	
Apx_a.doc	1/5/1999 2:07 PM	29,184	84%	4,622	
Apx_b.doc	1/5/1999 2:08 PM	14,336	78%	3,217	
Apx_c.doc	1/5/1999 2:08 PM	14,848	78%	3,324	
Apx_e.doc	1/5/1999 2:09 PM	11,776	80%	2,399	
Apx_gg.doc	1/5/1999 2:09 PM	52,611	69%	16,506	
Apx_h.doc	1/5/1999 2:12 PM	11,264	77%	2,545	
Apx_ne.doc	1/5/1999 2:52 PM	258,560	76%	61,448	
Apx_s.doc	1/5/1999 2:58 PM	33,948	76%	7,985	
Apx_t.doc	1/5/1999 3:00 PM	32,260	68%	10,278	
Apx_tv-1.doc	1/5/1999 3:24 PM	87,015	71%	24,909	
0021_FED.doc	1/5/1999 1:59 PM	15,872	73%	4,275	
16 file(s)		1,019,339	74%	262,084	