FLORIDA DEPARTMENT OF HEALTH

Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

**ELECTRONIC CORRESPONDENCE**
**August 23, 2010**
Steven.Bouley@pwr.utc.com

Stephen Bouley, Vice President
Pratt & Whitney Rocketdyne, Launch Vehicle and Hypersonic Systems
United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

Re: DRAFT Air Construction Permit No. 0990021-020-AC
DRAFT Title V Air Operating Permit Revision Project Nos. 0990021-014-AV; 0990021-015-AV
DRAFT Title V Air Operation Permit Renewal Project No. 0990021-013-AV

Dear Mr. Bouley:

One copy of the Technical Evaluation and Preliminary Determination, the combined Public Notice, the Draft Air Construction Permit, and the DRAFT Title V Air Operation Permit Revision/Renewal for the United Technologies Corporation, located at 17900 Beeline Highway (SR 710), Jupiter, Florida. [UTM Coordinates: Zone 17; 564.9 km E; 2977.3 km N; **Latitude**: 26° 54' 59" North / Longitude: 80° 20' 47" West] is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND a TITLE V AIR OPERATION PERMIT REVISION/RENEWAL" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND a TITLE V AIR OPERATION PERMIT REVISION/RENEWAL" are also included.

An electronic version of the DRAFT Permit will be posted on the Division of Air Resource Management's World Wide Web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:
http://www.dep.state.fl.us/air/emission/apds/default.asp

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/ RENEWAL" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Laxmana Tallam, P.E., at the below letterhead address. If you have any other questions, please contact Laxmana Tallam, at 561-837-5900.

Sincerely,

James E. Stormer, Q.E.P., Environmental Administrator
Air & Waste Section
Division of Environmental Public Health

In the Matter of an
Application for Permits by:

United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

DRAFT Permit No.: 0990021-020-AC
DRAFT Title V Permit No. 0990021-013-AV;
0990021-014-AV; 0990021-015-AV
Palm Beach County

_____/

**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/RENEWAL**

The Palm Beach County (PBC) Health Department (permitting authority) gives notice of its intent to issue an Air Construction Permit and a Title V Air Operation Permit Revision/Renewal (copies of the Draft Air Construction Permit and DRAFT Title V Air Operation Permit Revision/Renewal are attached) for the Title V source detailed in the application(s) specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, United Technologies Corporation, applied on **12/03/2008** to the permitting authority for a Title V Air Operation Permit Revision/Renewal and on 03/08/2010 for an Air Construction Permit. The facility is located at 17900 Beeline Highway (SR-710), Jupiter, Palm Beach County, Florida.
UTM Coordinates: Zone 17; 564.9 km E; 2977.3 km N; **Latitude**: 26° 54′ 59″ North / Longitude: 80° 20′ 47″ West], Palm Beach County, FL.

This is a combined air construction permit and Revision/Renewal Title V operating permit for United Technologies Corporation. Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

SAC, which is located on the same campus but in a wholly separate building, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing, and the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility. SAC was issued a Federally Enforceable State Operating Permit (FESOP) by Health Department on February 2, 2007 (FDEP Permit No. 0990185-004-AF) and is designated as a synthetic minor source for hazardous air pollutants (HAPs).

FDEP deemed that P&W and SAC are under common control, and thus should have a common Title V air operating permit. The permittee submitted an application that included two sites. The applicant also requested an air construction permit to designate the combined facility as a synthetic minor source for HAPs.

This Title V permit revision/renewal also incorporates the conditions of the construction permits 0990021-010-AC (emission unit #080), and 0990021-012-AC (emission unit # 079), and 0990021-020-AC (to combine both sites and to designate the facility as synthetic minor for HAPs).

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212 and 62-213. This source is not exempt

from construction and Title V permitting procedures. The permitting authority has determined that an Air Construction Permit and a Title V Air Operation Permit Revision/Renewal are required to construct and to commence or continue operations at the described facility.

The permitting authority intends to issue the Air Construction Permit and the Title V Air Operation Permit Revision/Renewal based on the belief that reasonable assurances have been provided to indicate that the construction activity and operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND a TITLE V AIR OPERATION PERMIT REVISION/RENEWAL." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the permitting authority's office at Air Pollution Control Section, Palm Beach County Health Department, 800 Clematis St., Post Office Box 29, West Palm Beach, Florida 33402-0029 (Telephone: (561) 837-5978; Fax: (561) 837-5295), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C. Failure to publish the notice and provide proof of publication may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Air Construction Permit in accordance with the conditions of the attached Draft Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The PBC Health Department will issue the PROPOSED permit, and subsequent FINAL Permit, in accordance with the conditions of the attached DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms and conditions.

The permitting authority will accept written comments concerning the proposed Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/RENEWAL." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The permitting authority will accept written comments concerning the proposed Title V Air Operation Permit Revision/Renewal issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/RENEWAL." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Title V Air Operation Permit Revision/Renewal, the permitting authority shall issue a Revised DRAFT Title V Air Operation Permit Revision/Renewal and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Permitting authority's Legal Office, located at 800 Clematis Street in West Palm Beach, Florida, 33402 (Telephone: (561) 837-5900, Fax (561) 837-5295). Petitions filed by the permit's (construction and Revision/Renewal) applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within 14 (fourteen) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of how and when each petitioner received notice of the agency action or proposed action;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,
(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the U.S. EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the U.S. EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the U.S. EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of U.S. EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the U.S. EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

*Executed in West Palm Beach, Florida*
For the Division Director
Environmental Public Health
PALM BEACH COUNTY HEALTH DEPARTMENT

James E. Stormer, Q.E.P., Environmental Administrator
Air & Waste Section
Division of Environmental Public Health

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/RENEWAL (including the combined PUBLIC NOTICE, the Draft Air Construction Permit and the DRAFT Title V Air Operation Permit package) and all copies were sent electronically (with Received Receipt) before the close of business on 08/23/2010 to the person(s) listed:

| | | |
|---|---|---|
| Steven Bouley, UTC | email | Steven.Bouley@pwr.utc.com |

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/RENEWAL (including the Draft Air Construction Permit and the DRAFT Title V Air Operation Permit package) were sent electronically (with Received Receipt) on the same date to the person(s) listed or as otherwise noted:

| | | |
|---|---|---|
| Bryant Storey, Golder Associates | email | Brian_Storey@golder.com |
| Dean Gee, UTC | email | Shau.Gee@pwr.utc.com |
| Lennon Anderson, P.E.<br>Southeast District Office, FDEP | email | Lennon.Anderson@dep.state.fl.us |
| Barbara Friday, FDEP/BAR<br>(for posting with Region 4, U.S. EPA) | Email | barbara.friday@dep.state.fl.us |

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Jeanette Tones (Clerk) 08/23/2010 (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION/RENEWAL**

**PALM BEACH COUNTY HEALTH DEPARTMENT**

DRAFT Air Construction Permit No.: 0990021-020-AC
DRAFT Title V Air Operation Permit Revision/Renewal Project Nos.
0990021-013-AV; 0990021-014-AV; 0—0021-015-AV

Palm Beach County

The Palm Beach County (PBC) Health Department (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Revision/Renewal and an Air Construction Permit to United Technologies Corporation located at 17900 Beeline Highway (SR-710), Jupiter, Palm Beach County, Florida. UTM Coordinates: Zone 17; 564.9 km E; 2977.3 km N; **Latitude**: 26° 54′ 59″ North / Longitude: 80° 20′ 47″ West], Palm Beach County, FL

This is a combined air construction permit and Revision/Renewal Title V operating permit for United Technologies Corporation. Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

SAC, which is located on the same campus but in a wholly separate building, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing, and the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility. SAC was issued a Federally Enforceable State Operating Permit (FESOP) by Health Department on February 2, 2007 (FDEP Permit No. 0990185-004-AF) and is designated as a synthetic minor source for hazardous air pollutants (HAPs).

FDEP deemed that P&W and SAC are under common control, and thus should have a common Title V air operating permit. The permittee submitted an application that included two sites. The applicant also requested an air construction permit to designate the combined facility as a synthetic minor source for HAPs.

This Title V permit revision/renewal also incorporates the conditions of the construction permits 0990021-010-AC (emission unit #080), and 0990021-012-AC (emission unit # 079), and 0990021-020-AC (to combine both sites and to designate the facility as synthetic minor for HAPs).

The permitting authority will issue the Air Construction Permit in accordance with the conditions of the Draft Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The PBC Health Department will issue the PROPOSED permit, and subsequent FINAL Permit, in accordance with the conditions of the attached DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms and conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice. Written comments should be provided to the Palm Beach County Health Department, 800 Clematis St., P.O. Box 29, West Palm Beach, Florida 33402-0029. Any written comments filed shall be made available for public inspection.

If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The Permitting Authority will accept written comments concerning the DRAFT Title V Air Operation Permit Revision/Renewal for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked and all facsimile comments must be received by the close of business (5:00 pm), on or before the end of this 30-day period, by the Permitting Authority at 800 Clematis St., P.O. Box 29, West Palm Beach, Florida 33402-0029. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (http://faw.dos.state.fl.us/) and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Title V Air Operation Permit Revision/Renewal, the Permitting Authority shall issue a Revised DRAFT Title V Air Operation Permit Revision/Renewal and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Permitting authority's Legal Office, located at 800 Clematis Street in West Palm Beach, Florida, 33402 (Telephone: (561) 837-5900, Fax (561) 837-5295). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within 14 (fourteen) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;
(c) A statement of how and when the petitioner received notice of the agency action or proposed action;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;
(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief;
(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application(s) have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any Title V permit. Any petition shall be based only on objections to the Title V permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any Title V permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Palm Beach County Health Department
800 Clematis St./P.O. Box 29
West Palm Beach, Florida 33402-0029
Telephone: (561) 837-5900
Fax: (561) 837-5295

The complete project file includes the Technical Evaluation and Preliminary Determination and associated Draft Air Construction Permit and DRAFT Title V Air Operation Permit Revision/Renewal, the application(s), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Laxmana Tallam, P.E., at the above address, or call 561-837-5900, for additional information.

Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

**AUGUST 23, 2010**
**Electronic Correspondence**
Steven.Bouley@pwr.utc.com

**ISSUED TO (PERMITTEE):**

United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

**Authorized Representative:**
Steven Bouley, Vice President
Pratt & Whitney Rocketdyne, Launch Vehicle and Hypersonic Systems

| | |
|---|---|
| **ARMS No.** | 0990021 |
| **Air Permit No.** | 0990021-020-AC |
| **Issued:** | **DRAFT** |
| **Expires:** | **DRAFT** |

**LOCATED AT:**

**Project Name: Construction Permit to change the status of the facility from Major for Hazardous Air Pollutants (HAPs) to Synthetic Minor for HAPs. This permit also combines Pratt & Whitney and Sikorsky facilities, since these are owned by the United Technologies Corporation. Currently, Pratt & Whitney has a Title V operating permit and Sikorsky has a Federally Enforceable State Operating Permit (FESOP).**

**Project Location**: 17900 Beeline Highway (SR 710), Jupiter, FL 33478
**UTM Coordinates:** Zone 17; 564.9 km E; 2977.3 km N
**Latitude**: 26° 54′ 59″ North / Longitude: 80° 20′ 47″ West

**STATEMENT OF BASIS:**

The Florida Department of Environmental Protection (DEP) has permitting jurisdiction for this project pursuant to Section 403.087 of the Florida Statutes (F.S.). However, in accordance with Section 403.182, F.S., the DEP recognizes the Palm Beach County Health Department (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 authorizes the Health Department to issue or deny permits to for this type of air pollution source located in Palm Beach County. Accordingly, the Health Department issues this permit under the provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the work for the proposed project 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:**

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

**DRAFT**

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James E. Stormer, Q.E.P., Environmental Administrator
Air Pollution Control Section
Division of Environmental Health and Engineering

# SECTION II. FACILITY-WIDE GENERAL CONDITIONS

## PERMIT HISTORY

06/04/2010: Health Department received response to request for additional information
04/06/2010: Health Department issued a request for additional information
03/08/2010: Health Department received application for construction permit

## PROJECT DESCRIPTION

Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

P&W was issued a Title V air operation permit by the Health Department on July 17, 2004 (FDEP Permit No. 0990021-006-AV), and is designated as a major source of criteria pollutants, including nitrogen oxides (NOx) and carbon monoxide (CO). In addition, P&W is a major source of volatile organic compounds (VOC), as defined by Title V regulations.

SAC, which is located on the same campus but in a wholly separate building, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing, and the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility. SAC was issued a Federally Enforceable State Operating Permit (FESOP) by Health Department on February 2, 2007 (FDEP Permit No. 0990185-004-AF) and is designated as a synthetic minor source for hazardous air pollutants (HAPs).

In a Request for Additional Information (RAI) letter dated April 29, 2009, FDEP deemed that P&W and SAC are under common control, and thus should have a common Title V air operating permit. Because of combining both operations in one permit, the applicant requested for an air construction permit to designate the combined facility as a synthetic minor source for HAPs along with the Title V permit renewal.

Following is the list of emission units operate at this facility.

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| 001 | I | Air compressors/heater (ACHR-2-B2)<br>*[This EU is no longer in operation and is removed per Applicant's request]* |
| 009 | U | Diesel storage tanks |
| 010 | U | Jet fuel storage tanks |
| 012 | R | Jet fuel storage tank (F-8-CFF) |
| 014 | R | Paint spray booth (PS-1-TMC) used for refinishing support equipment |
| 015 | U | Closed-loop flush cleaning (BF-1-RL-10) using Vertrel MCA |
| 016 | R | Boiler (BO-12-E6) fired by natural gas – 42 MMBTU/hr Heat Input |
| 018 | U | Acid gas scrubbing system (AS-2-MPL) for plating operations |
| 021 | I | 1. Alkali scrubbing system (AS-15-MPL) controls nickel and silver plating lines<br>*[This EU is no longer in operation and is removed per Applicant's request]* |
| 022 | R | Boilers (BO-1-MBH, BO-2-MBH) fired by natural gas – 54 MMBTU/hr Heat Input per Boiler |
| 031 | U | Diesel storage tanks (DL-19-SEGF and DL-20-SEGF) |
| 037 | U | AST Gasoline storage tanks |
| 040 | U | Heat treatment furnaces (FU-3-MHT and FU-4-MHT) fired by natural gas |
| 045 | U | Water evaporator (EV-1-MW) |
| 049 | U | Plasma spray booths |
| 053 | I | Woodshop dust collector (DC-1-MM) [This EU is no longer in operation and is removed from the permit per Applicant's request] |
| 059 | U | Air and fuel heaters fired with natural gas |

## SECTION II. FACILITY-WIDE GENERAL CONDITIONS

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| 063 | U | Woodshop dust collector (DC-1-RTF) |
| 064 | R | Paint spray booth (PSB-1-RTF) |
| 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 – 6.7 MMBTU/Hr Heat Input |
| 068 | R | Emergency electrical generating facility |
| 069 | U | JP-8 Fueled Jet engine test stands – Test Area A/C |
| 070 | U | Aerospace hand-wiping operations |
| 071 | U | Aerospace spray gun cleaning operations |
| 072 | U | Aerospace flush cleaning operations |
| 073 | U | Aerospace primer and topcoat application operations |
| 074 | U | Aerospace waste storage and handling operations |
| 075 | I | LOX/Kerosene rocket engine test stand [This EU was never constructed and is removed from the permit per Applicant's request] |
| 076 | I | Kerosene Fuel Storage Tank [This EU is no longer in operation and is removed from the permit per Applicant's request] |
| 077 | R | Combustion turbine test stands – Fired by Natural Gas |
| 078 | R | Vertrel Vapor Degreaser |
| 079 | R | Two JP8 fired Turbine Engines |
| 080 | R | E-8 Rocket Engine Test Stand |
| ***Following emission units are located at Sikorsky Aircraft Corporation*** | | |
| na | I | Inactive (EU 001 of Sikorsky permit – 0990185-004-AF) |
| na | I | Inactive (EU 002 of Sikorsky permit – 0990185-004-AF) |
| na | I | Inactive (transferred to ARMS EU No. 0990021-063) |
| na | I | Inactive (transferred to ARMS EU No. 0990021-064) |
| na | I | Inactive (spray booth PS-15-SIK has been removed) (EU 007 of Sikorsky permit – 0990185-004-AF) |
| 081 | R | SYK - Spray Booth (PS-14-SIK) [Previously EU 006 in Sikorsky permit] |
| 082 | R | SYK - Spray Booth (PS-16-SIK) [Previously EU 008 in Sikorsky permit] |
| na | I | Spray Booth (PS-13-SIK) (EU 010 of Sikorsky permit – 0990185-004-AF) Unit is removed |
| 083 | R | SYK - Boiler (BO-4-SIK) [Previously EU 009 in Sikorsky permit] |

* (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.

** I = Inactive

- EU 005 in Sikorsky permit (Dust Collector DC-3-SIK) used to collect dust from wood shop and machine shop. Machine shop has been relocated and Dust Collector DC-3-SIK no longer used/decommissioned and demolished in 2009. Applicant requested removal of this EU.
- EU 010 in Sikorsky Permit(Spray Booth (PS-13-SIK)) was removed, since the applicant requests removal of this EU (PS-13-SIK), as the booth has been decommissioned.

Based on the permit application, this facility **is not** a major source of hazardous air pollutants (HAPs).

# SECTION II. FACILITY-WIDE GENERAL CONDITIONS

## REGULATORY CLASSIFICATION

Title III: The facility is not a major source of hazardous air pollutants (HAPs).

Title IV: The facility will not operate units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility **is a** Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.

PSD: The permittee **is a** PSD facility in accordance with Rule 62-212.400, F.A.C.

RACT: Some of the emission units at the facility are subject to the RACT Rule**s.**

NSPS: This facility is not subject to 40 CFR 60 requirements

NESHAP: The facility is subject to the requirements of 40 CFR 61, Subpart M, Asbestos. In addition, the emergency generators are subject to 40 CFR Part 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." The chromium tank is subject to 40 CFR part 63 Subpart WWWWWW "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations

## PERMIT CONTENT

- Section I: Summary Information
- Section II: Facility-Wide Specific Conditions
- Section III: Emissions Unit Specific Conditions
- Appendices

| | |
|---|---|
| *Appendix A*: | General Permit Conditions |
| *Appendix B*: | Abbreviations, Acronyms, Citations, and Identification Numbers (Version dated 02/05/97) |
| *Appendix C*: | Summary of Testing Requirements |
| Appendix ZZZZ: | Applicable Requirements from 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines |
| Appendix WWWWWW: | National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations |

# SECTION II. FACILITY-WIDE GENERAL CONDITIONS

## 1.0 ADMINISTRATIVE REQUIREMENTS

1.1 Regulating Agencies: All applications, reports, tests, and notifications shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department (Health Department) at P.O. Box 29 (800 Evernia Street), West Palm Beach, Florida, 33402-0029, and telephone number (561) 837-5900. In addition, *copies* shall be submitted to the Air Program, Southeast District Office, Florida Department of Environmental Protection (DEP) at 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401. **[Specific Operating Agreement]**

1.2 General Conditions: The permittee shall be aware of, and operate under the attached General Conditions listed in *Appendix A* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**

1.3 Citation Format: *Appendix B* of this permit provides the format for citing applicable regulations.

1.4 Application for a Title V Operation Permit: A facility that commences operations as a Title V source after October 25, 1995, or that otherwise becomes subject to the permitting requirements of Chapter 62-213, F.A.C., after October 25, 1995, must file an application for an operations permit at least ninety days before the expiration of the source's air construction permit, but no later than 180 days after commencing operation, unless a different application due date is provided at Rule 62-204.800, F.A.C., or an earlier date is provided in the air construction permit. **[Rule 62-213.420(1)(a) 2, F.A.C.]**

Any applicant for a Title V permit, permit revision or permit renewal must submit an application form number 62-210.900(1), which must include all the information specified by subsection 62-213.420 (3) F.A.C., except that an application for permit revision must contain only the information related to the proposed change(s) from the currently effective Title V permit and any other requirements that become applicable at the time of the application. The applicant shall include information concerning fugitive emissions and stack emissions in the application. Each application for permit, permit revision, or permit renewal shall be certified by the responsible official in accordance with subsection 62-213.420(4), F.A.C. **[Rule 62-213.420(1)(b) 1, F.A.C.]**

*{Permitting Note: The facility submitted a concurrent Title V permit application}*

1.5 Applicable Regulations: This facility is subject to the following regulations: Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C. and the SOA]**

1.6 Source Obligation:

(a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the PBCHD in the permit.

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of Rules 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. **[Rule 62-212.400(12), F.A.C.]**

## SECTION II. FACILITY-WIDE GENERAL CONDITIONS

### 2.0 EMISSION LIMITING STANDARDS

2.1 **Emissions of Hazardous Air Pollutants (HAPs): The facility-wide emissions of a single HAP are limited to 9.9 tons in any consecutive 365-day period (rolling total). The facility-wide emissions of total HAPs are limited to 24.9 tons in any consecutive 365-day period (rolling total). The permittee shall monitor the emissions of HAPs pursuant to the condition 6.1 of this Section.**
**[Applicant's request to become a synthetic minor facility for HAPs, Rule 62-4.070(3), F.A.C.]**

2.2 General Particulate Emission Limiting Standards: General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, the permittee shall not:

(a) 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 that designated as No. 1 on the Ringelmann Chart (20 percent opacity). **[Rule 62-296.320(4)(b)1., F.A.C.]**

(b) If the presence of uncombined water is the only reason for failure to meet the visible emissions standards given in Rule 62-296.320(4)1, F.A.C., such failure shall not be a violation of the rule. **[Rule 62-296.320(4)(b)3, F.A.C.]**

(c) All visible emissions test performed pursuant to the requirements of Rule 62-296.320(b)(4)1, F.A.C. shall use EPA Reference Method 9, and shall meet all applicable requirements of Chapter 62-297, F.A.C. **[Rule 62-296.320(4)(b)1, F.A.C.]**

2.3 Prevention of Accidental Releases (Section 112(r) of CAA): At such time as the requirements of 40 CFR Part 68 are applicable to this source, the permittee shall: [**Section 112(r)(7)(B)(iii) of the CAA, 40 CFR Part 68, Section 252.941(1)(c), F.S.]**

(a) Submit a Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office RMP Reporting Center.

(b) Report to the appropriate representative of the Department of Community Affairs, as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the permittee is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the Clean Air Act (CAA).

(c) Submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S. and Rule 9G-21, F.A.C.

*Note: Currently the only substance stored at this facility in substantial quantities is distillate fuel. However, neither distillate fuel nor its components are among the regulated substances listed in Section (r)(b) of CAA (40 CFR 68.130). Based on this information provided by the permittee, the requirements of 40 CFR Part 68 are not applicable to this facility.*

2.4 Objectionable Odors: Objectionable Odor Prohibited: The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. **[Rule 62-296.320(2), F.A.C.]**

*Note: 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.* ***[Rule 62-210.200(187), F.A.C.]***

2.5 General VOC Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions: The permittee shall allow no person to 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 or systems deemed necessary and ordered by the Department. **[Rule 62-296.320(1)(a), F.A.C.]**

2.6 Unconfined Particulate Emission Limiting Standards: 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) Paving and maintenance of roads, parking areas and yards.
(b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
(c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
(d) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
(e) Landscaping or planting of vegetation.
(f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
(g) Confining abrasive blasting where possible.
(h) Enclosure or covering of conveyor systems.

**[Rule 62-296.320(4)(c), F.A.C.]**

## 3.0 PERFORMANCE STANDARDS

3.1 Circumvention: The permittee shall not circumvent air pollution control equipment/methods or allow the emission of air pollutants without the equipment/methods operating properly. **[Rule 62-210.650, F.A.C.]**

3.2 Excess Emissions Requirements:

(a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units 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 Health Department for longer duration. **[Rule 62-210.700(1), F.A.C.]**

(b) 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 start-up, shutdown, or malfunction are prohibited. **[Rule 62-210.700(4), F.A.C.]**

(c) In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Pollution Control Section of the Palm Beach County Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. **[Rule 62-210.700(6), F.A.C.]**

(d) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust the maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. **[Rule 62-210.700(5), F.A.C.]**

## 4.0 COMPLIANCE MONITORING REQUIREMENTS

4.1 Duration: Unless otherwise specified in this permit, all records and reports required by this permit shall be kept for at least 3 years from the date the information was recorded. **[Rule 62-4.160(14)(b), F.A.C.]**

4.2 Test Procedures: All test methods and procedures shall be performed in accordance with the applicable requirements of Chapter 62-297, F.A.C., summarized in *Appendix C* of this permit. **[Rule 62-297.100, F.A.C.]**

4.3 Operational Rate During Testing: Unless otherwise stated in the applicable emission limiting standard for a rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test

is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. **[Rule 62-297.310(2), F.A.C.]**

4.4 Stack Testing Facilities: The permittee shall install and maintain permanent / temporary stack testing facilities in accordance with the requirements provided in *Appendix C* of this permit. **[Rule 62-297.310(6), F.A.C.]**

4.5 Test Notification: At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Health Department in writing of: the test date; the expected test time; the location of the test; the facility contact person responsible for coordinating the test; and the person or company conducting test. The 15 day notification requirement may be waived at the discretion of the Health Department. Likewise, if circumstances prevent testing during the 60-day test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310(7)(a)9., F.A.C.]**

4.6 Special Compliance Tests**:** When the Health Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a DEP rule or permit is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Health Department. **[Rule 62-297.310(7)(b), F.A.C.]**

**5.0 REPORTS REQUIRED**

5.1 Annual Operations Report: The annual operating report *[DEP Form No. 62-210.900(5)* shall be submitted to the Palm Beach County Health Department by April 1. If the report is submitted, using the Department's electronic annual operating report software (EAOR), there is no requirement to submit a copy to DEP or the Palm Beach County Health Department. **[Rule 62-210.370(3)(c),F.A.C.]**

5.2 Excess Emissions Report: If excess emissions occur, the Health Department may request a written summary report of the incident. **[Rules 62-4.130 and 62-210.700(6), F.A.C.]**

5.3 Emission Compliance Stack Test Reports: For each required emissions compliance test, a report indicating the results of the test shall be filed with the Health Department as soon as practical, but no later than 45 days after the last sampling run is completed. The report shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Health Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310(8)(c), F.A.C.** and summarized in *Appendix C* of this permit. Additional report information may be specified for a given group of emissions units in this permit. **[Rule 62-297.310(8), F.A.C.]**

**6.0 EMISSIONS MONITORING REQUIREMENTS FOR HAPS EMISSIONS**

**6.1 Annual HAP Emissions – Recordkeeping: The permittee shall monitor compliance with the HAPs emissions limits, specified in condition 2.1 of this section, on a monthly basis. If the facility-wide rolling 12-month total emissions do not exceed 80% of the HAPs emission limits as specified, the permittee shall continue to monitor facility-wide HAPs emissions on a monthly basis (rolling 12-month total). If the facility-wide rolling 12-month total emissions of HAPS exceed 80% of the HAPs emissions limits as specified, the permittee shall monitor facility-wide HAPs emissions on a daily basis (rolling 365-day total). When the facility-wide rolling 365-day total emissions of HAPs do not exceed 80% of the specified HAPS emissions limits for 30 consecutive days, then monthly monitoring of HAPs emissions can be resumed. [Rule 62-4.070(3), F.A.C.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**SUBSECTION A. This subsection of the permit addresses the following unregulated emissions units:**

| EU No | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 009 | U | **Miscellaneous diesel storage tanks** located throughout the facility, including:<br><br>SCC #4-03-010-19: diesel, breathing loss; SCC #4-03-010-21: diesel, working loss<br>*{Permitting Note: The total storage capacity for this group of tanks is 13,640 gallons.}*<br><br>(DL-1AFP): 540 gallon diesel tank<br>(DL-1- MFP): 250 gallon diesel tank<br>(DL-1- MMG): 150 gallon diesel tank<br>(DL-5-SIKTFP): 250 gallon diesel tank<br>(DL-7-CFP): 350 gallon diesel tank<br>(DL-8-ESFP): 550 gallon diesel tank<br>(DL-10-ENFP): 1000 gallon diesel tank<br>(DL-16-C11FP): 250 gallon diesel tank<br>(DL-18-C14FP): 300 gallon diesel tank<br>(DL-22-RTF): 350 gallon diesel tank<br>(DL-21-C14G): 50 gallon diesel tank<br>(DL-2-MMG): 1000 gallon diesel tank<br>(DL-13-MHT): 2500 gallon diesel tank<br>(DL-23-TAB): 5000 gallon diesel tank<br>(DL-1-TABG): 50 gallon diesel tank<br>(DL-1-RSG): 50 gallon diesel tank<br>(DL-24-RTFG): 1000 gallon diesel tank |
| 010 | U | Miscellaneous jet fuel storage tanks located throughout the facility, including:<br><br>SCC #4-03-010-16: jet fuel, standing loss; SCC #4-03-010-18: jet fuel, withdrawal loss<br>*{Permitting Note: The total storage capacity for this group of tanks is 2,232,825 gallons}*<br><br>(F-1-CFF): 1,000,000 gallon jet fuel tank<br>(F-3-CFF): 150,000 gallon jet fuel tank<br>(F-5-CFF): 1,000,000 gallon jet fuel tank<br>(F-7-A): 10,000 gallon salvage jet fuel tank<br>(F-17-B2): 7,000 gallon jet fuel tank<br>(F-45-A1): 10,000 gallon jet fuel tank<br>(F-35E-BO): 8,000 gallon jet fuel tank<br>(F-37-C11): 275 gallon jet fuel tank<br>(F-39-C14): 275 gallon jet fuel tank<br>(F-40-C12): 275 gallon jet fuel tank<br>(F-41-D): 8,000 gallon jet fuel tank<br>(F-42-B): 10,000 gallon jet fuel tank<br>(F-43-B): 10,000 gallon jet fuel tank<br>(F-44-B): 8,000 gallon jet fuel tank<br>(F-46-B): 1,000 gallon jet fuel tank<br>(F-28-R): 10,000 gallon jet fuel tank |
| 012 | U | One million gallon jet fuel, floating roof storage tank (F-8-CFF) located in the Test Area fuel farm; constructed during 1986 and exempt from NSPS Kb due to vapor pressure criteria (Floating Roof Tank)<br><br>SCC #4-03-011-13: jet fuel, standing loss; SCC #4-03-001-19: jet fuel, Working loss |

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

| EU No | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 015 | U | Closed-loop halogenated flush cleaning process (BF-1-RL-10) using Vertrel MCA.<br><br>Located in the RL-10 /SSME Rocket Assembly Area consisting of back flushing of rocket engines located in Manufacture Area using Vertrel MCA Solvent<br><br>4-01-002-95: Gallons used<br><br>*{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, which regulates 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".}*<br><br>*A process change completed in November 2002 has eliminated the use of trichloroethylene plant-wide. A Subpart T non-regulated solvent, Vertrel MCA, is used instead. Currently, no activities subject to NESHAP, Subpart T remain at the facility.* |
| 018 | U | Acid gas scrubbing system (AS-2-MPL) for Nickel and Silver plating operations located in the Manufacture Area.<br><br>With an estimated scrubbing efficiency of 98%; Ceilcote Model #VCP-78<br><br>3-01-888-01: tons of product used |
| 031 | U | 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 and exempt from NSPS. SCC #4-03-010-19: diesel, breathing loss; SCC #4-03-010-21: diesel, working loss |
| 037 | U | Tank (GA-1R-TAB): 5,000 gallon gasoline; exempt from NSPS<br><br>SCC #4-04-002-02: gasoline (RVP-10), breathing loss; SCC #4-04-002-05: gasoline (RVP-10), working loss |
| 040 | U | Two heat treatment furnaces (FU-3-MHT and FU-4-MHT), each with a heat input rate of 6 mmBTU / hour located in the Manufacture Area; both are Sunbeam box-type furnaces and burn natural gas only.<br><br>SCC #1-02-006-02: natural gas combustion, 10 - 100 mmBTU per hour |
| 045 | U | Water evaporator (EV-1-MW) with a heat input rate of 0.2 mmBTU/hour located in the Manufacture Area; Dayton Model # 2C820, burns natural gas only.<br><br>SCC #1-02-006-03: natural gas combustion, < 10 mmBTU per hour |
| 049 | U | Plasma Spray Booths. These spray booths are used to coat rocket engine parts with a metal and/or ceramic coating. Process does not use organic coatings.<br><br>SCC # 3-09-040-01: tons of sprayed metal; SCC # 3-09-060-99: tons of material processed |

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

<table>
<tr><th>EU No</th><th>R / U*</th><th>BRIEF DESCRIPTION</th></tr>
<tr><td>059</td><td>U</td><td>Miscellaneous fuel and air heaters located in the different Test Areas.<br>These heaters are used to heat JP-8 fuel and/or air for testing jet engine components, and are fired with natural gas only.<br><br>SCC #3-90-006-99: natural gas combustion<br>Air heater (HR-22-D1) with a design heat input rate of 7 mmBTU per hour, Test Area D<br>Air heater (HR-23-D3) with a design heat input rate of 4 mmBTU per hour, Test Area D<br>Air heater (HR-26-D4) with a design heat input rate of 4 mmBTU per hour, Test Area D<br>Air heater (HR-27-D5) with a design heat input rate of 4 mmBTU per hour, Test Area D<br>Air heater (HR-28-D7) with a design heat input rate of 6 mmBTU per hour, Test Area D<br>Air heater (HR-29-A4) with a design heat input rate of 7 mmBTU per hour, Test Area A<br>Air heater (HR-17-D2) with a design heat input rate of 15 mmBTU per hour, Test Area D<br>Fuel heater (HR-1-A9) with a design heat input rate of 16 mmBTU per hour, Test Area A</td></tr>
<tr><td>063</td><td>U</td><td>Woodshop dust collector (DC-1-RTF)<br>Torit Model # 140-15<br>The dust collector is used to control sawdust from model making operations.<br>SCC # 3-07-030-02: tons of wood waste processed</td></tr>
<tr><td>065</td><td>U</td><td>Diesel engines powering emergency equipment including fire protection pumps, backup generators and cooling water pumps during rocket engine testing.<br><br>SCC # 2-04-004-02: Thousand gallons of diesel fuel<br><br>Equipment listed below:<br><br>
<table>
<tr><th>Equipment</th><th>Location</th><th>Equipment No</th><th>Diesel Tank ID</th></tr>
<tr><td>Fire Pump</td><td>EOB Lake</td><td>C038806</td><td>DL-1-MFP</td></tr>
<tr><td>Fire Pump</td><td>C11</td><td>CO47146</td><td>DL-16-C11FP</td></tr>
<tr><td>Fire Pump</td><td>C12/14</td><td>CO49074</td><td>DL-18-C14FP</td></tr>
<tr><td>Fire Pump</td><td>A4</td><td>CO43466</td><td>DL-1-AFP</td></tr>
<tr><td>Fire Pump</td><td>C10</td><td>CO51454</td><td>DL-7-CFP</td></tr>
<tr><td>Fire Pump</td><td>E Area North</td><td>CO52350</td><td>DL-10-ENFP</td></tr>
<tr><td>Fire Pump</td><td>E Area South</td><td>CO51279</td><td>DL-8-ESFP</td></tr>
<tr><td>Fire Pump</td><td>Remote Test Facility</td><td>CO50190</td><td>DL-22-RTF</td></tr>
<tr><td>Generator</td><td>Heat Treat</td><td>CO39024</td><td>DL-13-MHT</td></tr>
<tr><td>Generator</td><td>K-17</td><td>CO42502</td><td>DL-2-MMG</td></tr>
<tr><td>Generator</td><td>Maintenance</td><td>CO51880</td><td>DL-1-MMG</td></tr>
<tr><td>Generator</td><td>C Area Training</td><td>CO46467</td><td>DL-21-C14G</td></tr>
<tr><td>Generator</td><td>Building TAB Generator</td><td>CO40336</td><td>DL-1-TABG</td></tr>
<tr><td>Generator</td><td>Rocket Support</td><td>CO46466</td><td>DL-1-RSG</td></tr>
<tr><td>Generator</td><td>Remote Test Facility</td><td>CO56179</td><td>DL-24-RTFG</td></tr>
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## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

| EU No | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 069 | U | 10 existing jet engine test stands, consisting of:<br><br>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)<br><br>4 stands for testing commercial aircraft engines located at the west end plant site of Test Area C (C-10, C-11, C-12, and C-14)<br><br>The stands are estimated to operate approximately 10,000 engine hours and consume approximately 12 million gallons of jet fuel.<br><br>SCC # 2-02-009-01: 1000 gallons of jet fuel burned<br><br>*{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:*<br><br>*The Department would not require air pollution permits for the individual test stands nor the relocatable jet engines. The Department would not specify conditions in other permits that would affect the scheduling or utilization of individual test stands or relocatable jet engines. 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.*<br><br>*However, recent guidance from the EPA (listed below) indicates that jet engine test stands are considered to be stationary sources of air pollution.*<br><br>*12-31-95: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells*<br><br>*03-12-96: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells*<br><br>*09-23-96: EPA-APT to Mr. John R. McDowell, PE: Title V Applicability Issues Related to the Cincinnati/Northern Kentucky International Airport*<br><br>*Therefore, the Health Department establishes the jet engine test stands as existing, "unregulated" stationary emissions units with no limits on operation.}* |
| 070 | U | Aerospace hand-wiping operations:<br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-01-003-98: gallons of solvent consumed |

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

| EU No | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 071 | U | Aerospace spray gun cleaning operations subject to NESHAP Subpart GG<br><br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-02-999-98: gallons of solvent consumed |
| 072 | U | Aerospace flush cleaning operations<br><br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-01-003-98: gallons of solvent consumed |
| 073 | U | Aerospace primer and topcoat applications (paint booth PS-4-MM is currently out-of-service but is not demolished and was used for support equipment and not for any aircraft part only or products.<br><br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-02-001-10: gallons used |
| 074 | U | Aerospace waste storage and handling operations subject to NESHAP, Subpart GG – Currently operating under a RCRA permit, therefore, exempt from Subpart 40 CFR 63 Subpart GG, based on 40 CFR 63.741(e).<br><br>SCC # 5-03-008-30: 1000 each-year containers used |

* (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.

** I = Inactive

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### AIR POLLUTION CONTROL EQUIPMENT

A.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.]**

### PERFORMANCE STANDARDS

A.2 **Emission Units #70, #71, #72, and #73**: If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.
**[62-4.070(3), F.A.C.]**

A.3 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]**

A.4 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]**

### COMPLIANCE MONITORING REQUIREMENTS

A.5 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.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**SUBSECTION B:** *This subsection addresses the following emissions units:*

| EU No. | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 014 | R | Paint spray booth (PS-1-TMC)<br>Located in open hanger with no forced exhaust or filtration located in the rocket support Test Area E; used to *refinish* metal parts of support equipment<br><br>SCC #4-02-001-10: Gallons of Coating |
| 064 | R | Paint spray booth (PSB-1-RTF) with panel filter located in the Remote Test Facility;<br>Binks Model # CA-528-T-LH, and it is used to *refinish* metal parts of support equipment or to coat prototype, non-production parts. Stack details: Height 46', exit diameter 3', and 16,400 ACFM.<br><br>SCC #4-02-001-10: 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.}*

*EU # 14: The potential emissions of HAPs are 2.51 tons per year. EU # 64: The potential emissions of HAPs are 4.57 tons per year.*

### AIR POLLUTION CONTROL EQUIPMENT AND METHODS

B.1 Particulate Control: Particulate matter emissions from paint overspray shall be controlled by:

(a) *EU 014 (PS-1-TMC)*: 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) *EU 064 (PSB-1-RTF)*: Forced exhaust from each spray booth through mat or panel filters.
**[Rule 62-4.070(1), F.A.C.]**

### EMISSION LIMITING AND PERFORMANCE STANDARDS

B.2 Operational Restrictions:

(a) The hours of operation for these emissions units are not limited (8760 hours per year).
**[Rule 62-210.200 (PTE), F.A.C. and Applicant Request]**

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

1. *EU 014 (PS-1-TMC)*: 11.50 tons per consecutive 12 months, rolling total.
**[Rule 62-210.200 (PTE), F.A.C. and Applicant Request]**

2. *EU 064 (PSB-1-RTF)*: 2.84 tons per consecutive 12 months, rolling total.
**[Rule 62-296.500(3)(b), F.A.C. and Permit No. AC-50-168734]**

(c) Emission of Hazardous Air Pollutants (HAPs) are subject to the Facility-wide condition # 2.1.
**[Applicant's Request]**

### COMPLIANCE MONITORING REQUIREMENTS

B.3 VOC Content: The volatile organic compound (VOC) and Hazardous Air Pollutant (HAP) content of all coatings, thinners, and cleaners shall be determined by the Manufacturer Safety Data Sheets (MSDS), or 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.]**

B.4 Daily Spray Log: For each day of operation, the permittee shall record the following information in a written log, or an equivalent electronic recordkeeping system, provided records can be generated when requested by the Health Department:

(a) Date of operation;
(b) Identification of each VOC/HAP-containing material used (i.e., paints, thinners, cleaners, resins, adhesives, etc.); and

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

(c) Quantity of each VOC/HAP-containing material used to nearest tenth of a gallon.
**[Rule 62-4.070(3), F.A.C.]**

B.5 Monthly Operations Log: The permittee shall demonstrate compliance with the VOC/HAP limits on a monthly basis by keeping a written log, or an equivalent electronic recordkeeping system, provided records can be generated when requested by the Health Department, of the operations. Prior to the 20th 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/HAP-containing material used during the previous month.

(c) Calculated emissions of VOC/HAP 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:

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

*Where*:

$E^M$ = Calculated VOC/HAP 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/HAP content of coating, thinner, or cleaner reported from MSDS

*The actual equations and calculations are left to the discretion of the permittee, but they 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.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**Subsection C:** *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<br>Scotch Marine Model# 100 HP. Stack details: Height 15', exit diameter 2.5', with 6690 ACFM.<br><br>SCC #1-02-006-02: natural gas, external combustion - 10-100 MMBtu/hr |
| 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<br><br>Superior Model# 300-HSGL. Stack details: Height 66', exit diameter 7.6', with 91000 ACFM (Identical for two boilers)<br><br>SCC #1-02-006-02: natural gas, external combustion - 10-100 MMBtu/hr |
| 066 | R | Boiler (BO-14-E8) with a heat input rate of 7 mmBTU per hour located in the Test Area E.<br>200 Hp Johnson Model No. PFTA 200-4P300-S, fired by propane only. Stack details: Height 24', exit diameter 1', with 2765 ACFM<br><br>SCC #1-03-010-02: propane, external combustion |

*{Permitting Note: Thee boilers (EU 016 & 022) are not subject to 40 CFR 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" since these boilers are constructed before June 9, 1989. EU 066 is not subject to Subpart Dc since its heat input is less than 10 MMBtu/hr.}*

### Emission Limiting and Performance Standards

C.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.]**

C.2 Particulate Matter and Sulfur Dioxide: Emissions of particulate matter and sulfur dioxide shall be controlled using the Best Available Control Technology (BACT). BACT for these boilers is firing only pipeline quality natural gas or commercial grade propane.
**[Rule 62-296.406(2), F.A.C., Applicant Request]**

C.3 Unrestricted Hours of Operation: The hours of operation for the boilers are not limited.
**[Rules 62-4.160(2), 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]**

### Compliance Monitoring Requirements

C.5 Fuel Use Records: In lieu of conducting annual visible emission observations, the permittee can demonstrate compliance with the visible emission standards by maintaining fuel use records that document the exclusive use of pipeline quality natural gas or commercial grade propane to fuel the specific emission unit during the previous federal fiscal year.
**[Rules 62-297.310 and 62-297.350, F.A.C.]**

### Reports Required

C.7 Record Keeping requirements: The permittee shall be able to monitor and record the actual amount of fuel consumed and the operating hours on a monthly basis. All records shall be maintained on site at the facility. The annual amount of fuel consumed by these emission units shall be included in Pratt & Whitney's Annual Operating Report (AOR), DEP Form N0.62-210.900(5), F.A.C. **[Rule 62-210.370, F.A.C.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Subsection D: *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**<br><br>This emission units consists of:<br>• 16 identical diesel engines, Detroit Diesel Model #32V-149-TIB-3200;<br>• Each engine consumes approximately 109.2 gallons of diesel fuel per hour; and<br>• A pair of engines powers a single generator for emergency electrical power demands.<br>• Stack Details: Height 12', exit diameter 0.8', and 14,980 ACFM volumetric flow rate.<br><br>SCC #2-03-001-01: Internal combustion, diesel fuel |

*{Permitting Note: In a letter dated August 10, 1989, the Department of Environmental Regulation (now DEP) 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. Therefore, 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 that are 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 less than 32,000 gallons of diesel fuel per year. In the initial Title V application, the applicant specifically requested a limit of less than 400 hours per year.}*

### Emission Limiting and Performance Standards

D.1 40 CFR 63 Subpart ZZZZ: These emission units are subject to the regulations of 40 CFR Part 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."
**[40 CFR 63 Subpart ZZZZ]**

D.2 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.]**

D.3 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.]**

D.4 Hours of Operation: The permittee shall not operate any engine for more than 399 hours in any 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]**

### Compliance Monitoring Requirements

D.5 Compliance Test Method: EPA Method 7 shall be used to determine compliance with the emission-limiting standard for nitrogen oxides. See *Appendix C* for applicable Test Methods and Procedures.
**[Rule 62-296.570(4)(a)3., F.A.C.]**

D.6 NOx 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). Annual compliance testing while firing oil is unnecessary for units operating on oil for less than 400 hours in the current federal fiscal year.
**[Rule 62-296.570(4)(a)3., F.A.C.]**

### Records

D.7 Fuel Records: The permittee shall record 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. Permittee shall maintain documentation that the fuel does not exceed 0.05% sulfur content. 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 E:** *This subsection addresses the following emissions units:*

| EU No. | R / U* | Brief Description |
|---|---|---|
| 077 | R | **Combustion Turbine Test Stands**<br>Natural Gas firing at the combustion turbine test stands using wet, dry, and low-NOx technologies.<br>SCC # 1-02-006-02: MMCF Natural gas burned |

### Emission Limiting and Performance Standards

E.1 Permitted Capacity: The permittee shall not allow, cause, suffer or permit the operation of the modified test stands in excess of the following capacities without prior authorization from the Permitting Authority:

(a) *Annual Natural Gas Usage*: The permittee is authorized to use a maximum of 992 million standard cubic feet of natural gas per year (12-month rolling total) based on the method of operation.

(b) *Maximum Natural Gas Usage*: The permittee is authorized to fire a maximum of 0.310 million standard cubic feet of natural gas per hour while conducting R&D and QA & QC activities.

**[Permit No. 0990021-005-AC]**

E.2 Hours of Operation: The permittee is authorized to operate the combustion turbine test stands continuously within the limits specified in this permit. **[Permit No. 0990021-005-AC]**

E.3 Modes/Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method(s) of operation resulting in emissions in excess of limits specified in Specific **Condition III.E.4** of this permit without prior authorization from the Permitting Authority. The authorized modes and methods of operation include the following:

(a) *Research & Development Activities*: The permittee is authorized to conduct R&D activities related to the firing of natural gas in the combustion turbines using either wet, dry, or low-NOx control technologies.

(b) *QA/QC Activities*: The permittee is authorized to conduct QA/QC activities related to the firing of natural gas in the combustion turbines using either wet, dry, or low-NOx control technologies.

**[Permit No. 0990021-005-AC]**

*{Permitting Note: Prior authorization includes the issuance of construction, reconstruction, or modification permits or a determination by the Permitting Authority that the action is not subject to Rule 62-210.300(1), F.A.C. The limits of this permit do not apply to fuel oil firing.}*

### Emission Limitations and Standards

E.4 Emission Limitations: The permittee shall not allow, cause, suffer or permit emissions in excess of the following limitations without prior authorization from the Permitting Authority:

(a) *Oxides of Nitrogen*: Emissions shall not exceed 39.9 tons per year (12-month rolling total).

(b) *Carbon Monoxide*: Emissions shall not exceed 99.9 tons per year (12-month rolling total).

**[Permit No. 0990021-005-AC]**

### Compliance Monitoring Requirements

E.5 Emissions Inventory: The permittee shall maintain a current emissions inventory for each combustion turbine model tested. As a minimum, the emissions inventory shall be reviewed and revised semi-annually, as needed. The emissions inventory shall include the following information:

(a) Combustion Turbine Model No.
(b) Mode of Operation [R&D Activities or QA/QC Activities].
(c) Method of Operation [Wet, Dry, or Low NOx]
(d) Emissions data for NOx and CO based on load, water to fuel ratio (if applicable), ambient temperature, ambient pressure, and relative humidity.

**[Permit No. 0990021-005-AC]**

*{Permitting note: When establishing the inventory, the permittee may use single worst-case emissions over the various loads for either a mode or method of operation. The complexity and detail of the inventory is at the option of the permittee provided sufficient background information is available for the Health Department to document the emissions inventory assumptions if required.}*

E.6 Quality Assurance Plan (QAP): The permittee shall prepare a written QAP for the Emissions Inventory requirement of **Condition III.E.5** of this permit. The QAP shall, as a minimum, require periodic sampling and analysis of the exhaust gas temperature and concentrations of oxygen, NOx and CO. The QAP shall be implemented once actual NOx or CO emissions equal or exceed eighty (80) percent of the 12-month rolling totals of **Condition III.E.4** The permittee may elect to use a portable Combustion Gas Analyzer provided the unit is operated and maintained in accordance with the manufacturer's instructions or equivalent test method.
**[Permit No. 0990021-005-AC]**

E.7 Continuous Emissions Monitoring System (CEMS): The permittee may in-lieu of the emissions inventory and QAP requirements of **Conditions III.E.5** and **III.E.6**, elect to use a CEMS for monitoring and tracking emissions of NOx and CO. The CEMS system shall be installed, operated, and maintained in accordance with the performance specifications of 40 CFR 60 Appendices B and F as adopted in Rule 62-297.520, F.A.C.
**[Permit No. 0990021-005-AC]**

*{Permitting note: The applicant is being required to maintain an emissions inventory to ensure that the facility does not exceed the major source thresholds for PSD. The Health Department's intent is that the permittee will maintain a sufficient inventory to document actual emissions on a monthly basis in accordance with the most recent emissions data. It is not the Health Department's intent to back-calculate annual emissions in the event new data are made available. However, the Health Department is requiring the permittee to use the most recent factors to calculate test emissions once any revised factors are made available and comply with the emission limits of this permit.}*

**RECORDKEEPING AND REPORTING**

E.8 Operating Records: The permittee shall maintain the following records:

1. Test Number (Assigned by P&W).
2. Test Date (MM/DD/YY).
3. Test Mode (R&D or QA/QC).
4. Test Method (Wet, Dry, or Low-NOx).
5. Ambient Conditions (Temperature, Pressure, and Relative Humidity) during each test.
6. Test data examples include Load (%), Duration at each Load Point (min.), Water to Fuel ratio, and test duration.
7. Emissions estimates for the Oxides of Nitrogen (NOx) and Carbon Monoxide (CO) in pounds per test based on the Emissions Inventory Data of **Condition III.E.5**
8. Annual Emissions for NOx and CO based on a 12-month rolling total calculated by the 20$^{th}$ of each month.

**[Permit No. 0990021-005-AC]**

*{Permitting Note: The permittee may elect to use an electronic recordkeeping system in the format of either a spreadsheet or database provided records can be generated when requested by the Health Department.}*

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Sub Section F: *This subsection addresses the following emissions units:*

| EU No. | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 078 | R | **Vertrel Vapor Degreaser**<br>This degreaser uses the Vertrel® MCA specialty fluid and was manufactured by Forward Tech Industries, Inc.<br><br>SCC # 4-01-002-99: tons of solvent used |

*{Permitting Note: Vertrel proprietary solvents do not contain any HAPs and are not subject to 40 CFR 63 ( NESHAP) Subpart T "National Emission Standards for Halogenated Solvent Cleaning"}*

### EMISSION LIMITING AND PERFORMANCE STANDARDS

F.1 Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method of operation without prior authorization from the Permitting Authority. The authorized methods of operation include the following:

(a) *Open Top Area*: The vapor degreaser shall not have an open top area equal to or greater than 10.8 square feet (one square meter). **[Rule 62-296.511(1)(b)1., F.A.C., and Permit No. 0990021-005-AC]**

(b) *Degreasing Solvent*: The degreasing solvent shall not contain any halogenated solvent(s) regulated under 40 CFR part 63, Subpart T, any listed hazardous air pollutants regulated under Section 112 of the federal Clean Air Act as of November 1, 2001, or any listed ozone depleting compounds regulated under Title VI of the federal Clean Air Act as of November 1, 2001. **[Permit No. 0990021-005-AC]**

(c) *Solvent Usage:* Annual consumption of degreaser solvent shall not exceed 2,230 gallons per year. **[Permit No. 0990021-005-AC]**

F.2 Control Technology: The permittee shall not allow, cause, suffer or permit the operation of the unit without the following controls in-place and operating without prior authorization from the Permitting Authority. The control technologies include the following: **[Permit No. 0990021-005-AC, Rule 62-296.511(3), F.A.C.]**

(a) The vapor degreaser shall be equipped with a cover that can be opened and closed easily without disturbing the vapor zone.

(b) The vapor degreaser shall be equipped with the following safety switches:

(1) A condenser flow switch and thermostat which shuts off the heat if the condenser coolant is either not circulating or too warm; and

(2) A spray safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 centimeters) below the bottom condenser coil; and

(3) A vapor level control thermostat, which shuts off the heat when the vapor level rises to high.

(c) The cover shall be kept closed at all times except when processing work loads through the degreaser.

(d) Minimize solvent carryout by the following methods:

(1) Racking parts to allow complete drainage; and

(2) Moving parts in and out of the degreaser at less than 11 feet per minute (3.3 meters per minute); and

(3) Holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and

(4) Decanting any pools of solvent on the cleaned parts before removal from the vapor zone; and

(5) Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry.

(e) Do not degrease porous or absorbent materials, such as cloth, leather, wood, or rope.

(f) Do not occupy more than half of the degreaser's open-top area with a workload.

(g) Do not load the degreaser to the point where the vapor level would drop more than 4 inches (10 centimeters) below the bottom condenser coil when the workload is removed from the vapor zone.

(h) Always spray below the vapor zone.

(i) Repair solvent leaks immediately, or shut down the degreaser.

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

(j) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party such that greater than 20 percent of the waste solvent (by weight) can evaporate to the atmosphere.

(k) Do not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator.

(l) Do not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 66 cubic feet per minute per square foot (20 cubic meters per minute per square meter) of degreaser open area, unless necessary to meet OSHA requirements.

(m) Provide a permanent, conspicuous label, summarizing the operating procedure of **Conditions III.F.2.(c)** through **III.F.2.(l)** of this permit.

F.3 Hours of Operation: The permittee is authorized to operate continuously within the limits of this permit.
**[Permit No. 0990021-005-AC]**

**COMPLIANCE MONITORING**

F.4 Test Method: EPA Method 21 shall be use to determine volatile organic compound emissions from the vapor degreaser. **[Permit No. 0990021-005-AC, and Rule 62-296.511(5)(a), F.A.C.]**

F.5 Leak Detection and Repair Program: The permittee shall implement a leak detection and repair (LDR) program that includes a monthly inspection of the vapor degreaser in conjunction with the operating records of **Condition III.F.6.** The program shall as a minimum include the following:

(a) Visual Inspection of the degreaser and equipment area for signs of liquid leaks.

(b) Repair of any leak within 72 hours of detection.

(c) Test all repairs for leaks in accordance with **Condition III.F.4** of this permit.

**[Permit No. 0990021-005-AC]**

**RECORD KEEPING REQUIREMENTS**

F.6 Monthly Operating Records: The permittee shall maintain the following records for a period of 5 years either in electronic or written form:

(a) Date (Month, Day, & Year)
(b) Solvent Added to the Degreaser (Gallons)
(c) Solvent Removed from the Degreaser (Gallons)
(d) Net Gallons used for the period (Added-Removed)
(e) LDR Program Inspection Results
(f) LDR Program Repairs
(g) Volatile Organic Compound Emissions on a 12-month rolling total calculated by the 20$^{th}$ of each month.
(h) Hazardous Air Pollutants (HAP) emissions on a 12-month rolling total calculated by the 20$^{th}$ of each month, to demonstrate compliance with Facility-wide condition No. 2.1.

**[Permit No. 0990021-005-AC]**

*{Permitting Note: The permittee may elect to use an electronic recordkeeping system in the format of either a spreadsheet or database provided records can be generated when requested by the Health Department.}*

**REPORTING REQUIREMENTS**

F.7 Solvent Operation Records: The permittee shall be able to track the actual amount of solvent throughput and VOC/HAP emissions for this emission unit, reportable on an annual basis in the Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C. The permittee shall submit an Annual Operating Report *[DEP Form No. 62-210.900(5), F.A.C.]*, which summarizes operations for the previous calendar year before April 1 of each year.
**[Permit No. 0990021-005-AC, and Rule 62-210.370, F.A.C.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**Sub Section G: This subsection of the permit addresses the following group of emissions units:**

| EU ID No | Emissions Unit Description |
|---|---|
| 079 | **Two GG4-9A JP-8 Fired Combustion Turbines**<br><br>These units are rated at 19.5 MW, the maximum operating load will be limited to 12.3 MW as requested by applicant. The maximum heat input has been estimated to be about 232.1 MMBTU/hr. The maximum hourly consumption of fuel is estimated to be 29 gallons per minute per engine. |

*{Permitting Note: The potential emissions of NOx and CO from this emission unit are estimated to be 36.7 and 42.5 tons per year respectively. The project remains as a minor modification under PSD regulations since the project's maximum increase in criteria pollutant emissions for CO and NOx will remain below 100 and 40 tons per year, which are the PSD significant emission rates.}*

### Operating Restrictions

G.1 Permitted Capacity: The permittee shall not allow, cause, suffer or permit the operation of the combustion turbines in excess of the following capacities without prior authorization from the Permitting Authority:

- The maximum operating load for each of the combustion turbines is 12.3 MW. The turbines are allowed to burn only JP-8 fuel.
  **[Permit No: 0990021-008-AC]**

G.2 Individual Hours of Operation: The permittee shall not operate any one gas turbine for more than 375 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. **[Permit No: 0990021-008-AC]**

*{Permitting Note: The restriction on operating hours of each turbine limits the potential emissions of NOx and CO to 36.7 and 42.5 tons per year respectively}*

G.3 Combined Hours of Operation: The combined hours of operation of both gas turbines shall not exceed 750 hours per consecutive 12 months, rolling total. **[Permit No: 0990021-008-AC]**

### Emission Limiting and Performance Standards

G.4 RACT Standards for Nitrogen Oxides (NOx): Emissions of NOx from each gas turbine shall not exceed 0.90 lb/MMBtu while firing JP-8 fuel oil. As the turbines are substantially similar, compliance with this limit could be demonstrated by a stack test on one representative turbine unit within a facility. **[Rule 62-296.570(4)(b)5, F.A.C.]**

*{Permitting Note: The facility conducted NOx emissions test on July 31, 2008, and demonstrated compliance with 0.90 lb/MMBtu at various load levels.}*

### Compliance Assurance Monitoring

G.5 Emissions Inventory: The permittee shall maintain a current emissions inventory for each combustion turbine. As a minimum, the emissions inventory shall be reviewed and revised monthly, as needed. The emissions inventory shall include the following information:

(e) Combustion Turbine No.
(f) The hourly average operating load (psia),
(g) The hourly average heat input rate (mmbtu/hr)
(h) Monthly Hours of Operation.
(i) Monthly Fuel consumption [Gallons of JP-8]
(j) Monthly Heat Input [Million BTU/Month]
(k) Average Operating Load [MW] as determined by parametric monitoring (i.e. fuel consumption, assumed efficiency, rpm, etc.) based on a 30-day average.
(l) Emissions data for NOx and CO based on load, water to fuel ratio (if applicable), ambient temperature, ambient pressure, and relative humidity. **[Permit No: 0990021-008-AC]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

G.6 Compliance with RACT Standards: Rule 62-296.570(4)(b)5, F.A.C. establishes a NOx emission limiting standard for gas turbines firing fuel oil at 0.90 lb/MMBTU. For units that do not use continuous emission monitors (CEMs), compliance with this emission limit shall be demonstrated through annual stack testing. Rule 62-296.570(4)(a)3, F.A.C. exempts oil-fired units from annual testing requirements if they operate on oil for less than 400 hours per year.

The permittee proposed to limit the hours of operation of each individual turbine to 375 hours per federal fiscal year (October 1- September 30), thus avoiding the need to conduct compliance stack testing on an annual basis. If the rolling 12-month hours of operations exceed 375 hours, the permittee shall notify the Palm Beach County Health Department within 48 hours of the exceedance and conduct a compliance stack for NOx within 30 days of exceeding the 400-hour/yr. **[Rule 62-296.570(4)(a)3, F.A.C., and Permit No: 0990021-008-AC]**

G.7 The permittee shall monitor hourly average operating load (psia) and hourly heat input rate (mmbtu/hr). The emission factors developed, during the stack test conducted on July 31, 2008, at each operating load (psia) shall be used in estimating the monthly NOx and CO emissions. The monthly emissions estimates are used in calculating the 12-month rolling emissions of NOx and CO. The yearly estimates of NOx and CO shall be below the PSD significant emission rates as specified in Chapter 62-212, F.A.C. **[Permit No: 0990021-008-AC]**

G.8 Special Compliance Tests: When the Health Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a DEP rule or permit is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Health Department.
**[Rule 62-297.310(7)(b), F.A.C.]**

### REPORTING AND RECORDKEEPING REQUIREMENTS

G.9 Monthly Emission Records: The permittee shall maintain monthly emission records as described in **Specific Condition G.5** of this permit, on or before the 20th of each month, to summarize site-wide emissions of NOx and CO for the previous 12 months. These records shall include, as a minimum, the monthly emissions and the rolling 12-month total emissions for NOx and CO. These records shall be kept on site for a period of no less than five years and be made available to PBCHD representatives upon request. **[Permit No: 0990021-008-AC]**

G.10 Excess Emissions Reporting: If excess emissions occur, the permittee shall notify the Palm Beach County Health Department (PBCHD) within one (1) working day of the discovery of the excess emission occurrence. The notification shall include the following information: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. Within five (5) days following the initial notification, the owner or operator shall submit a report summarizing the incident to the PBCHD. The incident summary shall include all the information required in the initial notification plus any additional information regarding further actions taken to prevent future excess emissions from occurring. Neither of these notification requirements shall release the permittee from any liability for failure to comply with FDEP rules. **[Permit No: 0990021-008-AC]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**SUBSECTION H. This subsection of the permit addresses the following group of emissions units:**

| EU ID No | Status | Brief Description |
|---|---|---|
| 080 | Regulated | **E-8 Rocket Engine Test Stand**<br>The test stand consists of the Test Site and Propellant Storage Area (PSA). The facility proposes to burn liquid & gaseous methane / liquid oxygen as fuel. This emission unit also has the capability to burn liquid hydrogen/liquid oxygen as fuel.<br>Currently, the E-8 test stand contains four John Zink utility flares, and three of these flares will be used to burn methane. The facility also proposes to install a burn stack at the PSA to burn any excess methane vented during tanking and pumping.<br>Liquid methane is stored in one 14,000-gallon storage tank and one 3,600-gallon run tank. The total maximum storage of methane at the test stand will be 93,500 lbs. |

*The E-8 Test stand burn stack includes three John Zink utility flares (BS 202, BS 203 & BS 204). The Propellant Storage Area (PSA) includes the use of one John Zink flare (BS 2002). The facility revised the emissions of Carbon Monoxide (CO) using NASA –Glenn CEA 2002 Software program – that was used for estimating the rocket engine performance. This software was not available to the facility during the initial preparation of the permit application. According to the revised estimations, the CO emissions are 71.24 tons per year, which is still below the significant emission increase, and the emissions of the project are below the PSD thresholds. The previously estimated CO emissions were 24.27 tons per year.*

*The total emission unit wide CO and NOx emissions are estimated to be 71.24 and 0.19 tons per year respectively. The project remains as a minor modification under PSD regulations since the project's maximum increase in criteria pollutant emissions for CO and NOx will remain below 100 and 40 tons per year, which are the PSD significant emission rates. This emission unit is not subject to 40 CFR Part 63 Subpart PPPP "National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands", since the test stand is used exclusively for testing rocket engines.*

**Operating Restrictions**

H.1 Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method(s) of operation resulting in increased short-term or long-term potential emissions, without prior authorization from the permitting authority. The authorized methods of operation include the following.

(a) Fuels: The permittee is authorized to use methane, liquid hydrogen, and liquefied natural gas as rocket engine fuels.

(b) Oxidants: The permittee is authorized to use liquid oxygen (LOX) as the rocket engine fuel oxidizer.

**[Permit No. 0990021-010-AC]**

H.2 Methane consumption limit: Rocket engine firings shall not consume more than **265,300 pounds (liquid) OR 5.940 mmcf (gaseous) of methane** in any calendar year.

**[Permit No. 0990021-010-AC]**

*{**Permitting Note:** Based on the fuel consumption limit and the revised emission estimations submitted on 10/09/2008, the emission unit's potential CO emissions are 71.34 tons per year.}*

H.3 Hours of Operation: This emission unit is allowed to operate continuously without exceeding the methane consumption limit as **specified in condition.H.2.**

**[Permit No. 0990021-010-AC]**

**Compliance Monitoring & Record Keeping Requirements**

H.4 Fuel Consumption: The permittee shall record and maintain records of the monthly methane consumption at this emission unit. The permittee shall record the same by 20th of the following month. The permittee shall monitor compliance with the annual methane consumption limit, specified in **condition H.2.**

**[Permit No. 0990021-010-AC]**

H.5 Record Keeping: The permittee shall maintain the following records:

(a) Test Identification number

(b) Test date and Time (start and finish)

(c) Test duration (planned and actual)
(d) Oxidant and fuel types
(e) Oxidant/fuel ratio (planned and actual)
(f) Fuel usage, and
(g) Daily and Monthly totals of test duration, test firings, and fuel usage.

**[Permit No. 0990021-010-AC]**

**Reporting Requirements**

H.6 Test Notification: The permittee shall submit the notification to the PBCHD at least 24 hours prior to a rocket engine test firing. The notification shall include the date and time of the test firing, the expected duration of the test firing, the planned oxidant/fuel ratio, and the planned fuel usage rate.

**[Permit No. 0990021-010-AC]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**Sub Section I: This subsection of the permit addresses the following group of emissions units:**

| EU ID No | STATUS | EMISSIONS UNIT DESCRIPTION |
|---|---|---|
| 081 | Regulated | **Spray Booth (PS-14-SIK): Binks Model PFA-8-7-T-LH spray booth**<br><br>This booth controls particulate matter emissions with large, dry panel filters. Controlled emissions of particulate matter and uncontrolled emissions of volatile organic compounds are discharged at 50 feet above ground level at ambient temperature from a stack with a 2-foot diameter and a maximum flow rate of 7400 acfm.<br>***This emission unit was previously permitted as EU # 006 in Sikorsky's air permit – 0990185-004-AF.***<br>SCC# 4-02-001-10: gallons of coating |
| 082 | Regulated | **Spray Booth (PS-16-SIK): Binks auto spray booth**<br><br>This booth controls particulate matter emissions with large, dry panel filters; controlled emissions of particulate matter and uncontrolled emissions of volatile organic compounds are discharged at 50 feet above ground level at ambient temperature from two identical stacks each with a 5-foot diameter and a maximum flow rate of 27,000 acfm.<br>***This emission unit was previously permitted as EU # 008 in Sikorsky's air permit – 0990185-004-AF.***<br>SCC# 4-02-001-10: gallons of coating |

*{Permitting Note: These units were previously included in a separate air permit issued to Sikorsky Aircraft Corporation, Inc (0990185-001-AF). During the review of application for permit renewal for Pratt & Whitney, it was determined that permits for these two facilities will be combined in to one permit, with United Technologies Corporation as the permittee. Potential emissions of HAPs from EU 081 are2.1 tons per year. Potential emissions of HAPs from EU 082 are 7.5 tons per year.}*

*The operation of the spray booths includes the following miscellaneous activities:*

- *Cleaning operations (hand-wipe, spray gun cleaning, and flush cleaning)*
- *Depainting operations (media blasting, high intensity UV light blasting, and chemical stripping)*
- *Chemical milling and maskant operations*
- *Coating operations (primer, top coat, and clear coat)}*

*{Spray Booth (PS-13-SIK) was removed from this permit according to the permittee's request, since this booth is no longer operational at the facility}*

### EMISSION LIMITING AND PERFORMANCE STANDARDS

I.1 Air Pollution Control Equipment: In accordance with the manufacturer's recommendations, the permittee shall install, operate, and maintain the following control devices:

(a) *Emissions Unit # 081*: A Binks Model PFA-8-7-T-LH spray booth (or equivalent) with large, dry panel filters, exhaust fan, ductwork, and stack to control particulate matter emissions from surface coating operations. This spray booth is identified by the facility as PS-14-SIK. **[Permit Nos. AC50-113559 & 0990185-001-AF, Permit application]**

(b) *Emissions Unit # 082*: A Binks auto spray booth (or equivalent) with large, dry panel filters, exhaust fan, ductwork, and stack to control particulate matter emissions from surface coating operations. This spray booth is identified by the facility as PS-16-SIK. **[Permit Nos. AC50-191293 & 0990185-001-AF and Permit application]**

I.2 Circumvention: All air pollution control equipment shall be on line and function properly during surface coating operations. **[Rule 62-210.650, F.A.C.]**

I.3 Hours of Operation: There are no restrictions on the hours of operation for these emissions units (8760 hours per year). **[Permit No. 0990185-001-AF, and Permit Application]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

I.4 Allowable Surface Coating: These spray booths may be used to surface coat the exteriors of aircraft and refinish miscellaneous parts and support equipment. The permittee is prohibited from surface coating any newly manufactured metal parts from any production line without first applying for a modification of this permit. **[Permit No. 0990185-001-AF]**

I.5 Volatile Organic Compounds (VOCs): Emissions of volatile organic compounds (VOCs) from all cleaning, depainting, maskant, priming, and coating operations shall not exceed **2.1** tons from PS-14-SK, and **7.5** tons from PS-16-SIK; in any consecutive 12 months, rolling total. **[Applicant's request]**

I.6 Hazardous Air Pollutants (HAPs): **Facility shall not exceed the limit of facility-wide hazardous air pollutants as specified in Section II Specific condition 2.1. [Applicant's request]**

**COMPLIANCE MONITORING REQUIREMENTS**

I.7 HAP / VOC Content: The permittee shall maintain records at the facility of the content of volatile organic compounds (VOC) and hazardous air pollutants (HAP) in all raw materials used in the surface coating operations. The VOC and HAP of the raw materials shall be determined by Material Safety Data Sheets (MSDS) or engineering calculations. Equivalent methods may be used with prior written approval of the Health Department. **[Permit No. 0990185-001-AF]**

I.8 Spray Booth Usage Logs: For each spray booth, the permittee shall maintain a written log of the usage of coatings, thinners, cleaning agents, and other solvent containing materials. For each use of a spray booth, the operator shall record the following information:

- Date
- Identification of spray booth number (PS-14-SIK, or PS-16-SIK)
- Type of job or job identification number
- Name of coating, thinner, cleaning agent, or other solvent containing material used
- Quantity of material used to the nearest tenth of a gallon

At the end of each month, these log sheets shall be used to compile the Monthly Emissions Report. **[Permit No. 0990185-001-AF]**

I.9 Monthly Emissions Report: The permittee shall be able to demonstrate compliance with the emissions limiting and performance standards of this Subsection on a monthly basis by compiling a Monthly Emissions Report. Prior to the 20th calendar day of each month, the permittee shall calculate and record the following information for the previous month of operation in a written report:

- Month of operation.
- Type, VOC content, HAP content, and total monthly usage (to the nearest tenth of a gallon) of each material used during the month in the cleaning, depainting, maskant, and coating operations.
- Calculated monthly emissions of VOC, each HAP, and combined total HAPs.
- Calculated rolling 12-month total emissions of VOC, each HAP, and combined total HAPs.

The 12-month rolling total pollutant emission rate shall be the sum of the emissions calculated for the given month of operation and the emissions calculated for the previous consecutive 11 calendar months. Calculations must assume 100% of the VOCs and HAPs in the raw materials are emitted to the atmosphere. The actual format of the equations, the calculations, and the report are left to the discretion of the permittee and may be performed by a computer spreadsheet or database, provided the methodology and calculations are defined in the report.

The Monthly Emissions Reports are to be kept on site at the facility and made available to the Health Department upon request. In addition, these reports shall be used to complete the Annual Operating Report, *DEP Form No. 62-210.900(5)*, which is submitted to the Health Department before April 1 of each year. **[Permit No. 0990185-001-AF]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**SUBSECTION J. This subsection of the permit addresses the following emissions unit:**

| EU ID No | STATUS | EMISSIONS UNIT DESCRIPTION |
|---|---|---|
| 083 | Regulated | **Small Boiler (BO-4-SIK):** Steam boiler model CBH-70 is manufactured by Cleaver Brooks and identified by the facility as BO-4-SIK.<br>***This emission unit was previously permitted as EU # 009 in Sikorsky's permit – 0990185-004-AF.***<br><br>SCC# 1-02-006-03: MMCF Gas burned<br>*This unit has a design heat input of 2.93 mmBTU per hour (2845 cubic feet of natural gas per hour). Products of incomplete combustion are discharged to the atmosphere 60 feet above ground level from a 12-inch diameter stack at 200° F exit temperature.* |

*{Permitting Note: This emission unit was previously permitted as EU # 009 in Sikorsky's permit – 0990185-004-AF. This boiler is not subject to 40 CFR 60 Subpart Dc, since the heat input is less than 10 mmbtu/hr}*

**EMISSION LIMITING AND PERFORMANCE STANDARDS**

J.1 Visible Emissions 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.]**

J.2 Particulate Matter and Sulfur Dioxide: Emissions of particulate matter and sulfur dioxide shall be controlled using the Best Available Control Technology (BACT). BACT for this boiler is firing only pipeline quality natural gas.
**[Rule 62-296.406(2), F.A.C., Applicant Request]**

J.3 Fuel Limitations: In order to comply with the Best Available Control Technology (BACT) determination for particulate matter and sulfur dioxide, fuel shall be limited to pipeline quality natural gas. **[Rule 62-296.406, F.A.C. and Permit No. 0990185-001-AF, Applicant Request]**

J.4 Unrestricted Hours of Operation: The hours of operation for this emissions unit are not limited.
**[Permit No. 0990185-001-AF]**

**COMPLIANCE MONITORING REQUIREMENTS**

J.5 Fuel Use Records: In lieu of conducting annual visible emission observations, the permittee can demonstrate compliance with the visible emission standards by maintaining fuel use records that document the exclusive use of pipeline quality natural gas to fuel during the previous federal fiscal year.
**[Permit No. 0990021-020-AC]**

J.6 Record Keeping requirements: The permittee shall be able to monitor and record the actual amount of natural gas consumed and the operating hours on a monthly basis. All records shall be maintained on site at the facility. The annual amount of natural gas consumed by this emission unit shall be included in the Annual Operating Report (AOR), DEP Form N0.62-210.900(5), F.A.C. **[Rule 62-210.370, F.A.C.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

**SUBSECTION K. This subsection of the permit addresses the following emissions unit:**

| *EU ID No* | STATUS | EMISSIONS UNIT DESCRIPTION |
|---|---|---|
| 084 | Regulated | **Single Chrome Conversion Tank**<br>This tank has 10 gallons capacity.<br><br>The tank is used to apply alodine, a chromate conversion process, to production parts. Other parts are immersed. Other parts have the alodine brush applied. This process uses hexavalent chromium. The tank vents to general area ventilation. |

*{Permitting Note: This emission unit is subject to 40 CFR part 63 Subpart WWWWWW "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations." Chromate conversion coating is a type of conversion coating applied to passivate aluminum to slow corrosion.*
*The facility submitted the notification of compliance status under Subpart WWWWWW for this emission unit on June 23, 2010.}*

**PERFORMANCE STANDARDS:**

K.1 This emission unit is subject to 40 CFR part 63 Subpart WWWWWW "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations." Appendix WWWWWW is a part of this permit.
**[40 CFR 63 Subpart WWWWWW]**

K.2 The tank shall be covered as specified in 40 CFR 63 Subpart WWWWWW.
**[40 CFR 63 Subpart WWWWWW]**

| APPENDIX | DESCRIPTION |
|---|---|
| A | General Permit Conditions |
| B | Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 02/05/97) |
| C | Test Procedures – Rule 62-297.310, F.A.C. |
| Appendix ZZZZ: | Applicable Requirements from 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines |
| Appendix WWWWWW | National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations |

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

(a) A description of and cause of non-compliance; and
(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and

403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology, (BACT does apply)
(b) Determination of Prevention of Significant Deterioration; (PSD does not apply) and
(c) Compliance with New Source Performance Standards (NSPS does not apply).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**APPENDIX B.**
**Abbreviations, Acronyms, Citations, and Identification Numbers**
**(Version dated 02/05/97)**

**Abbreviations and Acronyms:**

**°F**: Degrees Fahrenheit
**BACT:** Best Available Control Technology
**CFR**: Code of Federal Regulations
**DEP:** State of Florida, Department of Environmental Protection
**DARM**: Division of Air Resource Management
**EPA**: United States Environmental Protection Agency
**F.A.C.**: Florida Administrative Code
**F.S.**: Florida Statute
**ISO:** International Standards Organization
**LAT**: Latitude
**LONG**: Longitude
**MMBtu:** million British thermal units
**MW:** Megawatt
**ORIS:** Office of Regulatory Information Systems
**SOA**: Specific Operating Agreement
**UTM:** Universal Transverse Mercator

**Citations:**

*The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.*

Code of Federal Regulations:

*Example*: **[40 CFR 60.334]**

| | | | |
|---|---|---|---|
| Where: | 40 | reference to | Title 40 |
| | CFR | reference to | Code of Federal Regulations |
| | 60 | reference to | Part 60 |
| | 60.334 | reference to | Regulation 60.334 |

Florida Administrative Code (F.A.C.) Rules:

*Example*: **[Rule 62-213, F.A.C.]**

| | | | |
|---|---|---|---|
| Where: | 62 | reference to | Title 62 |
| | 62-213 | reference to | Chapter 62-213 |
| | 62-213.205 | reference to | Rule 62-213.205, F.A.C. |

**ISO:** International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

**APPENDIX B.**
**Abbreviations, Acronyms, Citations, and Identification Numbers**
**(Version dated 02/05/97)**

**Identification Numbers:**

Facility Identification (ID) Number:

*Example*: Facility ID No.: 1050221

*Where:*

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

*Example*: 1050221-002-AV, or
1050221-001-AC

*Where:*
AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by permit tracking database
001 or 002 = 3-digit sequential project number assigned by permit tracking database

*Example*: PSD-FL-185
PA95-01
AC53-208321
*Where:*
PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC = Old Air Construction Permit numbering

**APPENDIX C**
**TEST PROCEDURES - Rule 62-297.310, F.A.C.**

C.1 Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. **[Rule 62-297.310(1), F.A.C.]**

C.2 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. **[Rule 62-297.301(2), F.A.C.]**

C.3 Permitted Capacity: Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. **[Rule 62-297.310(2)(b), F.A.C.]**

C.4 Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. **[Rule 62-297.310(3), F.A.C.]**

C.5 Required Sampling Time: Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. **[Rule 62-297.310(4)(a)1, F.A.C.]**

C.6 Opacity Compliance Tests: When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

(a) For batch, cyclical processes, or other operations, which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

(b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.**[Rule 62-297.310(4)(a)2, F.A.C.]**

C.7 Minimum Sample Volume: Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet. **[Rule 62-297.310(4)(b), F.A.C.]**

**APPENDIX C**
**TEST PROCEDURES - Rule 62-297.310, F.A.C.**

C.8 Required Flow Rate Range: For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained. **[Rule 62-297.310(4)(c), F.A.C.]**

C.9 Allowed Modification to EPA Method 5: When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. **[Rule 62-297.310(4)(e), F.A.C.]**

C.10 Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. **[Rule 62-297.310(5)(a), F.A.C.]**

C.11 Calibration of Sampling Equipment: Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1. **[Rule 62-297.310(4)(d), F.A.C.]**

**Table 62-297.310-1**
**Calibration Schedule**

| Item | Minimum Calibration Frequency | Reference Instrument | Tolerance |
|---|---|---|---|
| Liquid in glass thermometer | Annually | ASTM Hg in glass ref. Thermometer or equivalent, or thermometric points | +/-2% |
| Bimetallic thermometer | Quarterly | Calib. liq. in glass thermometer | 5 degrees F |
| Thermocouple | Annually | ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer | 5 degrees F |
| Barometer | Monthly | Hg barometer or NOAA station | +/-1% scale |
| Pitot Tube | When required or when damaged | By construction or measurements in wind tunnel D greater than 16" and standard pitot tube | See EPA Method 2, Fig. 2-2 &2-3 |
| Probe Nozzles | Before each test or when nicked, dented, or corroded<br>Max. deviation between readings | Micrometer | +/-0.001" mean of at least three readings .004" |
| Dry Gas Meter and Orifice Meter | Full Scale: When received, When 5% change observed, Annually<br>1. One Point: Semiannually<br>2. Check after each test series | Spirometer or calibrated wet test or dry gas test meter<br>Comparison check | 2%<br>5% |

C.12 Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, Including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted

to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. **[Rule 62-297.310(5)(b), F.A.C.]**

C.13 Required Stack Sampling Facilities. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.
2. The ports shall be capable of being sealed when not in use.
3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance. 4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
4. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
2. On circular stacks with two sampling ports, the platform shall extend at least 110 degrees around the stack.
3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.
1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.
1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
   a. The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket, which is one and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
   b. A three-eighth inch bolt, which protrudes 2 inches from the stack, may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
   c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
2. A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

C.14 Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.
1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or
   b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,

4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
    a. Visible emissions, if there is an applicable standard;
    b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
    c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

C.15 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct a special compliance test. The special compliance test shall be conducted within 15 days of operation of the E.U. outside the design criteria of the AQCS (air quality control system). The special compliance test shall be conducted to document compliance with the emission limitations and to establish a normal range of operation. **[Rule 62-297.310(7)(b), F.A.C.]**

C.16 Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. **[Rule 62-297.310(7)(c), F.A.C.]**

**APPENDIX C**
**TEST PROCEDURES - Rule 62-297.310, F.A.C.**

C.17 Compliance Test Notification: The permittee shall notify the Compliance Authority fifteen (15) days prior to Emission Unit (E.U.) testing. **[Rule 62-297.310(7)(a)(9), F.A.C.]**

C.18 Compliance Test Submittal: Copies of the test report(s) shall be submitted to the Permitting Authority and the Compliance Authority within forty-five (45) days of completion of testing. **[Rule 62-297.310(8)(b), F.A.C.]**

C.19 Test Reports: The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information: **[Rule 62-297.310(8)(c), F.A.C.]**

(a) The type, location, and designation of the emissions unit tested.
(b) The facility at which the emissions unit is located.
(c) The owner or operator of the emissions unit.
(d) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
(e) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission-limiting standard.
(f) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
(g) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
(h) The date, starting time, and duration of each sampling run.
(i) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
(j) The number of points sampled and configuration and location of the sampling plane.
(k) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
(l) The type, manufacturer, and configuration of the sampling equipment used.
(m) Data related to the required calibration of the test equipment.
(n) Data on the identification, processing, and weights of all filters used.
(o) Data on the types and amounts of any chemical solutions used.
(p) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
(q) The names of individuals, who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
(r) All measured and calculated data required to be determined by each applicable test procedure for each run.
(s) The detailed calculations for one run that relate the collected data to the calculated emission rate.
(t) The applicable emission standard, the resulting maximum allowable emission rate for the emissions unit, plus the test results in the same form and unit of measure.
(u) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

C.20 Recordkeeping: The permittee shall ensure that all records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the

date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses. **[Rule 62-213.440(1)(b)2.a., F.A.C.]**

C.21 Record Retention: The permittee shall retain records of all monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. **[Rule 62-213.440(1)(b)2.b., F.A.C.]**

C.22 Alternate Sampling Procedure: The owner or operator of any emissions unit subject to the provisions of this chapter may request in writing a determination by the Secretary or his/her designee that any requirement of this chapter (except for any continuous monitoring requirements) relating to emissions test procedures, methodology, equipment, or test facilities shall not apply to such emissions unit and shall request approval of an alternate procedures or requirements. The request shall set forth the following information, at a minimum:

(a) Specific emissions unit and permit number, if any, for which exception is requested.

(b) The specific provision(s) of this chapter from which an exception is sought.

(c) The basis for the exception, including but not limited to any hardship which would result from compliance with the provisions of this chapter.

(d) The alternate procedure(s) or requirement(s) for which approval is sought and a demonstration that such alternate procedure(s) or requirement(s) shall be adequate to demonstrate compliance with applicable emission limiting standards contained in the rules of the Department or any permit issued pursuant to those rules.

The Secretary or his/her designee shall specify by order each alternate procedure or requirement approved for an individual emissions unit source in accordance with this section or shall issue an order denying the request for such approval. The Department's order shall be final agency action, reviewable in accordance with Section 120.57, Florida Statutes. **[Rule 62-297.620, F.A.C.]**

**Appendix ZZZZ**
**Applicable Requirements from 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines**

**63.6585 Am I subject to this subpart?**

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source.

**63.6590 What parts of my plant does this subpart cover?**
(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
(1) *Existing stationary RICE.*
For stationary RICE located at an area source of HAP emissions, stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

**63.6595 When do I have to comply with this subpart?**

**If you have an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013**

**63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and Table 4 to this subpart.
(a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

**63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

If you own or operate an existing nonemergency CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

**63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

**63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing CI stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions **or an existing stationary CI RICE located at an area source of HAP emissions you** are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in 40 CFR 63.6595 and according to the provisions in 40 CFR 63.7(a)(2).
(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
(2) The test must not be older than 2 years.
(3) The test must be reviewed and accepted by the Administrator.
(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

**63.6620 What performance tests and other procedures must I use?**

a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart.
d) You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR63.7(e)(3). Each test run must last at least 1 hour.
(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

(1) $$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:
$C_i$= concentration of CO or formaldehyde at the control device inlet,
$C_o$= concentration of CO or formaldehyde at the control device outlet, and
R = percent reduction of CO or formaldehyde emissions.
(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide ($CO_2$). If pollutant concentrations are to be corrected to 15 percent oxygen and $CO_2$concentration is measured in lieu of oxygen concentration measurement, a $CO_2$correction factor is needed. Calculate the $CO_2$correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.
(i) Calculate the fuel-specific $F_o$value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

(1) $$F_o = \frac{0.209\, F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:
$F_o$= Fuel factor based on the ratio of oxygen volume to the ultimate $CO_2$volume produced by the fuel at zero percent excess air.
0.209 = Fraction of air that is oxygen, percent/100.
$F_d$= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).
$F_c$= Ratio of the volume of $CO_2$ produced to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).
(ii) Calculate the $CO_2$ correction factor for correcting measurement data to 15 percent oxygen, as follows:

(1) $$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:
$X_{co2}$= $CO_2$correction factor, percent.
5.9 = 20.9 percent $O_2$−15 percent $O_2$, the defined $O_2$correction value, percent
(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or

NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
(1) Identification of the specific parameters you propose to use as operating limitations;
(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally ( *e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally ( *e.g.,* wear and tear, error, etc.) on a routine basis or over time;
(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided

**63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(g) If you own or operate an existing non-emergency CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) in this section.
(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
(h) If you operate a new or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed

30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary engine that is subject to the work, operation or management practices in items 1, 2, or 4 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

**63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the engine according to the conditions described in paragraphs (f)(1) through (4) of this section.
1) For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
(2) There is no time limit on the use of emergency stationary RICE in emergency situations.
(3) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.
The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
(4) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is

not limited by this paragraph (f)(4), as long as the power provided by the financial arrangement is limited to emergency power.

**63.6645 What notifications must I submit and when?**

(a) You must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
(2) An existing stationary CI RICE located at an area source of HAP emissions.

**63.6650 What reports must I submit and when?**

You must submit each report in Table 7 of this subpart that applies to you.
(b) Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in 40 CFR 63.6595.
(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in 40 CFR 63.6595.
(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 63.6595 and ending on December 31.
(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in 40 CFR 63.6595.
(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
(1) Company name and address.
(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
(3) Date of report and beginning and ending dates of the reporting period.
(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction.
(3) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
(4) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
(4) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
(5) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

**63.6655 What records must I keep?**

If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(3), (b)(1) through (b)(3) and (c) of this section.
A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR63.10(b)(2)(xiv).
(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.
(3) Records of performance tests and performance evaluations as required in 40 CFR63.10(b)(2)(viii).
(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
(1) An existing stationary CI RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
(2) An existing stationary emergency CI RICE.
(3) An existing stationary CI RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the nonresettable hour meter. The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
(1) An existing emergency stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
(2) An existing emergency stationary CI RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines. ???

**63.6660 In what form and how long must I keep my records?**

Your records must be in a form suitable and readily available for expeditious review according to 40 CFR63.10(b)(1).

As specified in 40 CFR63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

**63.6665 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

**63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

***Area source*** means any stationary source of HAP that is not a major source as defined in part 63.

***Associated equipment*** as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

***Black start engine*** means an engine whose only purpose is to start up a combustion turbine.

***CAA*** means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101–549, 104 Stat. 2399).

***Compression ignition*** means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

***Custody transfer*** means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

***Deviation*** means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by 40 CFR63.6(e)(1)(i).

***Diesel engine*** means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

***Diesel fuel*** means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines

***Digester gas*** means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and $CO_2$.

***Dual-fuel engine*** means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

***Emergency stationary RICE*** means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, *etc.* Stationary CI ICE used for peak shaving are not considered emergency stationary ICE. Stationary CI ICE used to supply power to an electric grid or that supply nonemergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under 40 CFR 63.6640(f). Emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may also operate an additional 50 hours per year in non-emergency situations. All other emergency stationary RICE must comply with the requirements specified in 40 CFR 63.6640(f).

***Engine startup*** means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

***Four-stroke engine*** means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

***Gaseous fuel*** means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

***Gasoline*** means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

***Glycol dehydration unit*** means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

***Hazardous air pollutants (HAP)*** means any air pollutants listed in or pursuant to section 112(b) of the CAA.

***ISO standard day conditions*** means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

***Landfill gas*** means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and $CO_2$.

***Lean burn engine*** means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

***Limited use stationary RICE*** means any stationary RICE that operates less than 100 hours per year.

***Liquefied petroleum gas*** means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

***Liquid fuel*** means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

***Major Source,*** as used in this subpart, shall have the same meaning as in 40 CFR63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in 40 CFR63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in 40 CFR63.1271 of subpart HHH of this part, shall not be aggregated.

***Malfunction*** means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

***Natural gas*** means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

***Non-selective catalytic reduction (NSCR)*** means an add-on catalytic nitrogen oxides ($NO_X$) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, $NO_X$, CO, and volatile organic compounds (VOC) into $CO_2$, nitrogen, and water.

***Oil and gas production facility*** as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded ( *i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

***Oxidation catalyst*** means an add-on catalytic control device that controls CO and VOC by oxidation.

***Peaking unit or engine*** means any standby engine intended for use during periods of high demand that are not emergencies.

***Percent load*** means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

***Potential to emit*** means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in 40 CFR63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to 40 CFR63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to 40 CFR63.1270(a)(2).

***Production field facility*** means those oil and gas production facilities located prior to the point of custody transfer.

***Production well*** means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

***Propane*** means a colorless gas derived from petroleum and natural gas, with the molecular structure $C_3H_8$.

***Residential/commercial/institutional emergency stationary RICE*** means an emergency stationary RICE used in residential establishments such as homes or residences, commercial establishments such as office buildings, hotels, or stores, or institutional establishments such as medical centers, research centers, and institutions of higher education.

***Responsible official*** means responsible official as defined in 40 CFR 70.2.

***Rich burn engine*** means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for $NO_X$ (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

***Site-rated HP*** means the maximum manufacturer's design capacity at engine site conditions.

***Spark ignition*** means relating to: either a gasoline-fueled engine; or any other type of engine a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

***Stationary reciprocating internal combustion engine (RICE)*** means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differs from mobile RICE in that stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

***Stationary RICE test cell/stand*** means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

***Stoichiometric*** means the theoretical air-to-fuel ratio required for complete combustion.

***Storage vessel with the potential for flash emissions*** means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

***Subpart*** means 40 CFR part 63, subpart ZZZZ.

***Surface site*** means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

***Two-stroke engine*** means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

(1)

**Table 2b**
**Operating Limitations for Existing Non- Emergency Compression Ignition Stationary RICE >500 HP,**

As stated in 40 CFR 63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and existing, new and reconstructed compression ignition stationary RICE:

| For each ... | You must meet the following operating limitation ... |
|---|---|
| 1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or<br>2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst. | a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and |
| | b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1] |
| 2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or<br>2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst. | Comply with any operating limitations approved by the Administrator. |

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

(1)

**Table 2d**
**Requirements for Existing Compression Ignition Stationary RICE Located at Area Sources of HAP Emissions**

As stated in 40 CFR 63.6600 and 63.6640, you must comply with the following emission and operating limitations for existing compression ignition stationary RICE:

| For each … | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must ... |
|---|---|---|
| 1. Non-Emergency, non-black start CI ≤ 300 HP. | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 2. Non-Emergency, non-black start CI 300<HP≤500. | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O2; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 3. Non-Emergency, non-black start CI > 500 HP. | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O2; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 4. Emergency CI and black start CI.[2] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first; | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |

[1] Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.
[2] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

(1)

| Table 3<br>Subsequent Performance Tests As stated in 40 CFR 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements: | | |
|---|---|---|
| **For each . . .** | **Complying with the requirement to . . .** | **You must . . .** |
| 4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE. | Limit or reduce CO or formaldehyde emissions. | Conduct subsequent performance tests every 8,760 hrs or 3 years, whichever comes first. |

(1)

**Table 4**
**Requirements for Performance Tests**
As stated in §40 CFR 63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE for existing sources:

| For each . . . | Complying with the requirement to . . . | You must . . . | Using . . . | According to the following requirements . . . |
|---|---|---|---|---|
| 1. 2SLB, 4SLB, and CI stationary RICE. | a. Reduce CO emissions. | i. Measure the O2 at the inlet and outlet of the control device; and | (1) Portable CO and O2 analyzer. | (a) Using ASTM D6522–00 (2005) [a, b] (incorporated by reference, see 40 CFR 63.14). Measurements to determine O2 must be made at the same time as the measurements for CO concentration. |
| | | ii. Measure the CO at the inlet and the outlet of the control device. | (1) Portable CO and O2 analyzer. | (a) Using ASTM D6522–00 (2005) a,b (incorporated by reference, see 40 CFR 63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O2, dry basis. |
| 3. Stationary RICE | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. | i. Select the sampling port location and the number of traverse points; and | (1) Method 1 or 1A of 40 CFR part 60, appendix A 40 CFR 63.7(d)(1)(i). | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the O2 concentration of the stationary RICE exhaust at the sampling port location; and | (1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005). | (a) Measurements to determine O2 concentration must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and | (1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03. | (a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iv. Measure formaldehyde at the exhaust of the stationary RICE; or | (1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348–03 [c], provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130. | (a) Formaldehyde concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| | | v. Measure CO at the exhaust of the stationary RICE. | (1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005) [a], Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03. | (a) CO concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour longer runs. |

[a] You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.
[b] You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.
[c] You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1)

**Table 5**
**Initial Compliance With Emission Limitations and Operating Limitations**
As stated in §40 CFR 63.6612, 63.6625 and63.6630, you must initially comply with the emission and operating limitations as required by the following:

| For each . . | Complying with the requirement to… | You have demonstrated initial compliance if ... |
|---|---|---|
| 8. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source. | a. Reduce CO or formaldehyde emissions ... | i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction. |
| 9. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source. | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. | i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable. |

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**Table 6**
**Continuous Compliance With Emission Limitations and Operating Limitations**
As stated in 40 CFR 63.6640, you must continuously comply with the required by the following: emissions and operating limitations as

| For each . . . | Complying with the requirement to . . . | You must demonstrate continuous compliance by . . . |
|---|---|---|
| 8. Stationary RICE >500 HP located at a major source. | Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR. | i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit a; and<br>ii. Collecting the approved operating parameter (if any) data according to 40 CFR 63.6625(b); and<br>iii. Reducing these data to 4-hour rolling averages; and<br>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 9. Existing stationary CI RICE not subject to any numerical emission limitations. | a. Work or Management practices | i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or<br>ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions |
| 10. Existing stationary RICE >500 HP that are not limited use stationary RICE, except 4SRB >500 HP located at major sources.<br>11. Existing limited use stationary RICE >500 HP that are limited use CI stationary RICE. | a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. | i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit.<br>i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit. |

[a] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

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**Table 7**
**Requirements for Reports**
As stated in 40 CFR 63.6650, you must comply with the following requirements for reports:

| You must submit a(n) . . . | The report must contain. . . | You must submit the report . . . |
|---|---|---|
| 1. Compliance report | a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or | i. Semiannually according to the requirements in 40 CFR 63.6650(b)(1)–(5) for engines that are not limited use stationary CI RICE subject to numerical emission limitations; and<br>ii. Annually according to the requirements in 40 CFR 63.6650(b)(6)–(9) for engines that are limited use stationary CI RICE subject to numerical emission limitations. |
| | b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 CFR 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), the information in 40 CFR 63.6650(e); or | i. Semiannually according to the requirements in 40 CFR 63.6650(b). |
| | c. If you had a malfunction during the reporting period, the information in 40 CFR 63.6650(c)(4). | i. Semiannually according to the requirements in 40 CFR 63.6650(b). |
| 2. Report | a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and | i. Annually, according to the requirements in 40 CFR 63.6650. |
| | b. The operating limits provided in your Federally enforceable permit, and any deviations from these limits; and | i. See item 2.a.i. |
| | c. Any problems or errors suspected with the meters. | i. See item 2.a.i. |

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**Table 8**
**Applicability of General Provisions to Subpart ZZZZ**
As stated in 40 CFR 63.6665, you must comply with the following applicable general provisions.

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.1 | General applicability of the General Provisions. | Yes. | |
| 63.2 | Definitions | Yes | Additional terms defined in 63.6675. |
| 63.3 | Units and abbreviations | Yes. | |
| 63.4 | Prohibited activities and circumvention | Yes. | |
| 63.5 | Construction and reconstruction | Yes. | |
| 63.6(a) | Applicability | Yes. | |
| 63.6(b)(1)-(4) | Compliance dates for new and reconstructed sources. | Yes. | |
| 63.6(b)(5) | Notification | Yes. | |
| 63.6(b)(6) | [Reserved] | | |
| 63.6(b)(7) | Compliance dates for new and reconstructed area sources that become major sources. | Yes. | |
| 63.6(c)(1)–(2) | Compliance dates for existing sources | Yes. | |
| 63.6(c)(3)–(4) | [Reserved] | | |
| 63.6(c)(5) | Compliance dates for existing area sources that become major sources. | Yes. | |
| 63.6(d) | [Reserved] | | |
| 63.6(e) | Operation and maintenance | No. | |
| 63.6(f)(1) | Applicability of standards | No. | |
| 63.6(f)(2) | Methods for determining compliance | Yes. | |
| 63.6(f)(3) | Finding of compliance | Yes. | |
| 63.6(g)(1)–(3) | Use of alternate standard | Yes. | |
| 63.6(h) | Opacity and visible emission standards | No ... | Subpart ZZZZ does not contain opacity or visible emission standards. |
| 63.6(i) | Compliance extension procedures and criteria. | Yes. | |
| 63.6(j) | Presidential compliance exemption | Yes. | |
| 63.7(a)(1)–(2) | Performance test dates | Yes | Subpart ZZZZ contains performance test dates at 63.6610, 63.6611, and 63.6612. |
| 63.7(a)(3) | CAA section 114 authority | Yes. | |
| 63.7(b)(1) | Notification of performance test | Yes | Except that 63.7(b)(1) only applies as specified in 63.6645. |
| 63.7(b)(2) | Notification of rescheduling | Yes | Except that 63.7(b)(2) only applies as specified in 63.6645. |
| 63.7(c) | Quality assurance/test plan | Yes | Except that 63.7(c) only applies as specified in 63.6645.- |
| 63.7(d) | Testing facilities | Yes. | |
| 63.7(e)(1) | Conditions for conducting performance tests. | No. | Subpart ZZZZ specifies conditions for con-ducting performance tests at 63.6620. |
| 63.7(e)(2) | Conduct of performance tests and reduction of data. | Yes | Subpart ZZZZ specifies test methods at 63.6620. |
| 63.7(e)(3) | Test run duration | Yes. | |
| 63.7(e)(4) | Administrator may require other testing under section 114 of the CAA. | Yes. | |
| 63.7(f) | Alternative test method provisions | Yes. | |

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| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.7(g) | Performance test data analysis, recordkeeping, and reporting. | Yes. | |
| 63.7(h) | Waiver of tests | Yes. | |
| 63.8(a)(1) | Applicability of monitoring requirements | Yes ... | Subpart ZZZZ contains specific requirements for monitoring at 63.6625. |
| 63.8(a)(2) | Performance specifications | Yes. | |
| 63.8(a)(3) | [Reserved] | | |
| 63.8(a)(4) | Monitoring for control devices | No. | |
| 63.8(b)(1) | Monitoring | Yes. | |
| 63.8(b)(2)–(3) | Multiple effluents and multiple monitoring systems. | Yes. | |
| 63.8(c)(1) | Monitoring system operation and maintenance. | Yes. | |
| 63.8(c)(1)(i) | Routine and predictable SSM | Yes. | |
| 63.8(c)(1)(ii) | SSM not in Startup Shutdown Malfunction Plan. | Yes. | |
| 63.8(c)(1)(iii) | Compliance with operation and maintenance requirements. | Yes. | |
| 63.8(c)(2)–(3) | Monitoring system installation | Yes. | |
| 63.8(c)(4) | Continuous monitoring system (CMS) requirements. | Yes | Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS). |
| 63.8(c)(5) | COMS minimum procedures | No . | Subpart ZZZZ does not require COMS. |
| 63.8(c)(6)–(8) | CMS requirements | Yes | Except that subpart ZZZZ does not require COMS. |
| 63.8(d) | CMS quality control | Yes. | |
| 63.8(e) | CMS performance evaluation | Yes | Except for 63.8(e)(5)(ii), which applies to COMS. Except that 63.8(e) only applies as specified in 63.6645. |
| 63.8(f)(1)–(5) | Alternative monitoring method | Yes . | Except that 63.8(f)(4) only applies as specified in 63.6645. |
| 63.8(f)(6) | Alternative to relative accuracy test | Yes . | Except that 63.8(f)(6) only applies as specified in 63.6645. |
| 63.8(g) | Data reduction | Yes .. | Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at 63.6635 and 63.6640. |
| 63.9(a) | Applicability and State delegation of notification requirements. | Yes. | |
| 63.9(b)(1)–(5) | Initial notifications | Yes | Except that 63.9(b)(3) is reserved. Except that 63.9(b) only applies as specified in 63.6645. |
| 63.9(c) | Request for compliance extension | Yes | Except that 63.9(c) only applies as specified in 63.6645. |
| 63.9(d) | Notification of special compliance requirements for new sources. | Yes . | Except that 63.9(d) only applies as specified in 63.6645. |

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| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.9(e) | Notification of performance test | Yes . | Except that 63.9(e) only applies as specified in 63.6645. |
| 63.9(f) | Notification of visible emission (VE)/opacity test. | No .. | Subpart ZZZZ does not contain opacity or VE standards. |
| 63.9(g)(1) | Notification of performance evaluation | Yes . | Except that 63.9(g) only applies as specified in 63.6645. |
| 63.9(g)(2) | Notification of use of COMS data | No .. | Subpart ZZZZ does not contain opacity or VE standards. |
| 63.9(g)(3) | Notification that criterion for alternative to RATA is exceeded. | Yes . | If alternative is in use. Except that 63.9(g) only applies as specified in 63.6645. |
| 63.9(h)(1)–(6) | Notification of compliance status | Yes . | Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. 63.9(h)(4) is reserved. Except that 63.9(h) only applies as specified in 63.6645. |
| 63.9(i) | Adjustment of submittal deadlines | Yes. | |
| 63.9(j) | Change in previous information | Yes. | |
| 63.10(a) | Administrative provisions for recordkeeping/reporting. | Yes. | |
| 63.10(b)(1) | Record retention | Yes. | |
| 63.10(b)(2)(i)–(v) | Records related to SSM | No. | |
| 63.10(b)(2)(vi)–(xi) | Records | Yes. | |
| 63.10(b)(2)(xii) | Record when under waiver | Yes. | |
| 63.10(b)(2)(xiii) | Records when using alternative to RATA | Yes.. | For CO standard if using RATA alternative. |
| 63.10(b)(2)(xiv) | Records of supporting documentation | Yes. | |
| 63.10(b)(3) | Records of applicability determination | Yes. | |
| 63.10(c) | Additional records for sources using CEMS. | Yes | Except that 63.10(c)(2)–(4) and (9) are reserved. |
| 63.10(d)(1) | General reporting requirements | Yes. | |
| 63.10(d)(2) | Report of performance test results | Yes. | |
| 63.10(d)(3) | Reporting opacity or VE observations | No | Subpart ZZZZ does not contain opacity or VE standards. |
| 63.10(d)(4) | Progress reports | Yes. | |
| 63.10(d)(5) | Startup, shutdown, and malfunction reports | No. | |
| 63.10(e)(1) and (2)(i) | Additional CMS Reports | Yes. | |
| 63.10(e)(2)(ii) | COMS-related report | No .. | Subpart ZZZZ does not require COMS. |
| 63.10(e)(3) | Excess emission and parameter | Yes.. | Except that 63.10(e)(3)(i) (C) is reserved. |
| 63.10(e)(4) | Reporting COMS data | No | Subpart ZZZZ does not require COMS. |
| 63.10(f) | Waiver for recordkeeping/reporting | Yes. | |
| 63.11 | Flares | No. | |
| 63.12 | State authority and delegations | Yes. | |
| 63.13 | Addresses | Yes. | |
| 63.14 | Incorporation by reference | Yes. | |
| 63.15 | Availability of information | Yes. | |

## Subpart WWWWWW—

## National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations

**Source:** 73 FR 37741, July 1, 2008, unless otherwise noted.

**Applicability and Compliance Dates**

### § 63.11504 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a plating and polishing facility that is an area source of hazardous air pollutant (HAP) emissions and meets the criteria specified in paragraphs (a)(1) through (3) of this section.

(1) A plating and polishing facility is a plant site that is engaged in one or more of the processes listed in paragraphs (a)(1)(i) through (vi) of this section.

(i) Electroplating other than chromium electroplating (i.e., non-chromium electroplating).

(ii) Electroless or non-eletrolytic plating.

(iii) Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying.

(iv) Dry mechanical polishing of finished metals and formed products after plating.

(v) Electroforming.

(vi) Electropolishing.

(2) An area source of HAP emissions is any stationary source or group of stationary sources within a contiguous area under common control that does not have the potential to emit any single HAP at a rate of 9.07 megagrams per year (Mg/yr) (10 tons per year (tpy)) or more and any combination of HAP at a rate of 22.68 Mg/yr (25 tpy) or more.

(3) Your plating and polishing facility uses or has emissions of compounds of one or more plating and polishing metal HAP, which means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, as defined in §63.11511, “What definitions apply to this subpart?” With the exception of lead, plating and polishing metal HAP also include any of these metals in the elemental form.

(b) [Reserved]

### § 63.11505 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or existing affected source, as specified in paragraphs (a)(1) through (3) of this section, at all times. A new source is defined in §63.11511, “What definitions apply to this subpart?”

(1) Each tank that contains one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”, and is used for non-chromium electroplating; electroforming; electropolishing; electroless plating or other non-electrolytic metal coating operations, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

(2) Each thermal spraying operation that applies one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”

(3) Each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”

(b) An affected source is existing if you commenced construction or reconstruction of the affected source on or before March 14, 2008.

(c) An affected source is new if you commenced construction or reconstruction of the affected source after March 14, 2008.

(d) This subpart does not apply to any of the process units or operations described in paragraphs (d)(1) through (6) of this section.

(1) Process units that are subject to the requirements of 40 CFR part 63, subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks).

(2) Research and development process units, as defined in §63.11511, "What definitions apply to this subpart?"

(3) Process units that are used strictly for educational purposes.

(4) Thermal spraying conducted to repair surfaces.

(5) Dry mechanical polishing conducted to restore the original finish to a surface to apply to restoring the original finish.

(6) Any plating or polishing process that does not use any material that contains cadmium, chromium, lead, or nickel in amounts of 0.1 percent or more by weight, or that contains manganese in amounts of 1.0 percent or more by weight, as reported on the Material Safety Data Sheet for the material.

(e) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, "Title V," provided you are not otherwise required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

**§ 63.11506 What are my compliance dates?**

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart no later than July 1, 2010.

(b) If you own or operate a new affected source for which the initial startup date is on or before July 1, 2008, you must achieve compliance with the provisions of this subpart no later than July 1, 2008.

(c) If you own or operate a new affected source for which the initial startup date is after July 1, 2008, you must achieve compliance with the provisions of this subpart upon initial startup of your affected source.

**Standards and Compliance Requirements**

**§ 63.11507 What are my standards and management practices?**

(a) If you own or operate an affected new or existing non-cyanide electroplating, electroforming, or electropolishing tank (hereafter referred to as an "electrolytic" process tank, as defined in §63.11511, "What definitions apply to this subpart?") that contains one or more of the plating and polishing metal HAP and operates at a pH of less than 12, you must comply with the requirements in paragraph (a)(1), (2), or (3) of this section, and implement the applicable management practices in paragraph (g) of this section, as practicable.

(1) You must use a wetting agent/fume suppressant, as defined in §63.11511, "What definitions apply to this subpart?", in the bath of the affected tank according to paragraphs (a)(1)(i) through (iii) of this section.

(i) You must initially add the wetting agent/fume suppressant in the amounts recommended by the manufacturer for the specific type of electrolytic process.

(ii) You must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

(iii) If a wetting agent/fume suppressant is included in the electrolytic process bath chemicals used in the affected tank according to the manufacturer's instructions, it is not necessary to add additional wetting agent/fume suppressants to the tank to comply with this rule.

(2) You must capture and exhaust emissions from the affected tank to any one of the following emission control devices: composite mesh pad, packed bed scrubber, or mesh pad mist eliminator, according to paragraphs (a)(2)(i) and (ii) of this section.

(i) You must operate all capture and control devices according to the manufacturer's specifications and operating instructions.

(ii) You must keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(3) You must cover the tank surface according to paragraph (a)(3)(i) or (ii) of this section.

(i) For batch electrolytic process tanks, as defined in §63.11511, "What definitions apply to this subpart?", you must use a tank cover, as defined in §63.11511, over all of the effective surface area of the tank for at least 95 percent of the electrolytic process operating time.

(ii) For continuous electrolytic process tanks, as defined in §63.11511, "What definitions apply to this subpart?", you must cover at least 75 percent of the surface of the tank, as defined in §63.11511, whenever the electrolytic process tank is in operation.

(b) If you own or operate an affected new or existing "flash" or short-term electroplating tank, as defined in §63.11511, "What definitions apply to this subpart?", that uses or emits one or more of the plating and polishing metal HAP, you must comply with the requirements specified in paragraph (b)(1) or (b)(2), and implement the applicable management practices in paragraph (g) of this section, as practicable.

(1) You must limit short-term or "flash" electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(2) You must use a tank cover, as defined in §63.11511, "What definitions apply to this subpart?", for at least 95 percent of the plating time.

(c) If you own or operate an affected new or existing process tank that is used both for short-term electroplating and for electrolytic processing of longer duration (i.e., processing that does not meet the definition of short-term or flash electroplating) and contains one or more of the plating and polishing metal HAP, you must meet the requirements specified in paragraph (a) or (b) of this section, whichever apply to the process operation, and implement the applicable management practices in paragraph (g) of this section, as practicable.

(d) If you own or operate an affected new or existing electroplating tank that uses cyanide in the plating bath, operates at pH greater than or equal to 12, and contains one or more of the plating and polishing metal HAP, you must comply with the requirements in paragraphs (d)(1) and (2) of this section:

(1) You must measure and record the pH of the tank upon start-up. No additional pH measurements are required.

(2) You must implement the applicable management practices in paragraph (g) of this section, as practicable.

(e) If you own or operate an affected new or existing dry mechanical polishing equipment that emits one or more of the plating and polishing metal HAP, you must operate a capture system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter, according to paragraphs (e)(1) and (2) of this section.

(1) You must operate all capture and control devices according to the manufacturer's specifications and operating instructions.

(2) You must keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(f) If you own or operate an affected thermal spraying operation that applies one or more of the plating and polishing metal HAP, you must meet the applicable requirements specified in paragraphs (f)(1) through (3) of this section, and the applicable management practices in paragraph (g) of this section.

(1) For existing permanent thermal spraying operations, you must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a water curtain, fabric filter, or HEPA filter, according to paragraphs (f)(1)(i) and (ii) of this section.

(i) You must operate all capture and control devices according to the manufacturer's specifications and instructions.

(ii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(2) For new permanent thermal spraying operations, you must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric or HEPA filter, according to paragraphs (f)(2)(i) and (ii) of this section.

(i) You must operate all capture and control devices according to the manufacturer's specifications and instructions.

(ii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(3) For temporary thermal spraying operations, as defined in §63.11511 “What definitions apply to this subpart?”, you must meet the applicable requirements specified in paragraphs (f)(3)(i) and (ii) of this section.

(i) You must document the amount of time the thermal spraying occurs each day, and where it is conducted.

(ii) You must implement the applicable management practices specified in paragraph (g) of this section, as practicable.

(g) If you own or operate an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, you must implement the applicable management practices in paragraphs (g)(1) through (12) of this section, as practicable.

(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

(3) Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.

(4) Use tank covers, if already owned and available at the facility, whenever practicable.

(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

(10) Minimize spills and overflow of tanks, as practicable.

(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

**§ 63.11508 What are my compliance requirements?**

(a) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with §63.11509(b) of "What are my notification, reporting, and recordkeeping requirements?"

(b) You must be in compliance with the applicable management practices and equipment standards in this subpart at all times.

(c) To demonstrate initial compliance, you must satisfy the requirements specified in paragraphs (c)(1) through (11) of this section.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(1)(i) through (iv) of this section.

(i) You must add wetting agent/fume suppressant to the bath of each affected tank according to manufacturer's specifications and instructions.

(ii) You must state in your Notification of Compliance Status that you add wetting agent/fume suppressant to the bath according to manufacturer's specifications and instructions.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(2) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a control system, as defined in §63.11511, "What definitions apply to this subpart?", to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(2)(i) through (v) of this section.

(i) You must install a control system designed to capture emissions from the affected tank and exhaust them to a composite mesh pad, packed bed scrubber, or mesh pad mist eliminator.

(ii) You must state in your Notification of Compliance Status that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(v) You must follow the manufacturer's specifications and operating instructions for the control systems at all times.

(3) If you own or operate an affected batch electrolytic process tank, as defined in §63.11511, "What definitions apply to this subpart?", that contains one or more of the plating and polishing metal HAP and which is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a tank cover, as defined in §63.11511, to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(3)(i) through (iv) of this section.

(i) You must install a tank cover on the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(4) If you own or operate an affected continuous electrolytic process tank, as defined in §63.11511, "What definitions apply to this subpart?", that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you cover the tank surface to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(4)(i) through (iv) of this section.

(i) You must cover at least 75 percent of the surface area of the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the surface cover in place whenever the continuous electrolytic process is in operation.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(5) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply with this subpart by limiting the plating time of the affected tank, you must demonstrate initial compliance according to paragraphs (c)(5)(i) through (iii) of this section.

(i) You must state in your Notification of Compliance Status that you limit short-term or flash electroplating to no more than 1 cumulative hour per day, or 3 cumulative minutes per hour of plating time.

(ii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(6) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must demonstrate initial compliance according to paragraphs (c)(6)(i) through (iv) of this section.

(i) You must install a tank cover on the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the cover in place at least 95 percent of the plating time.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(7) If you own or operate an affected tank that contains one or more of the plating and polishing metal HAP, uses cyanide in the bath, and is subject to the management practices specified in §63.11507(d), "What are my standards and management practices?", you must demonstrate initial compliance according to paragraphs (c)(7)(i) through (iii) of this section.

(i) You must report in your Notification of Compliance Status the pH of the bath solution that was measured at start-up, according to the requirements of §63.11507(d)(1).

(ii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11490(g), “What are my standards and management practices?”, as practicable.

(8) If you own or operate an affected dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(e), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(8)(i) through (iii) of this section.

(i) You must install a control system that is designed to capture PM emissions from the polishing operation and exhaust them to a cartridge, fabric, or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(9) If you own or operate an existing affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(1), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(9)(i) through (iii) of this section.

(i) You must install a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a water curtain, fabric filter, or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed and are operating the control system according to the manufacturer's specifications and instructions.

(iii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(10) If you own or operate a new affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(2), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(10)(i) through (iii) of this section.

(i) You must install and operate a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a fabric or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed and operate the control system according to the manufacturer's specifications and instructions.

(iii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(11) If you own or operate an affected temporary thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(3), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(11)(i) and (ii) of this section.

(i) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(ii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(d) To demonstrate continuous compliance with the applicable management practices and equipment standards specified in this subpart, you must satisfy the requirements specified in paragraphs (d)(1) through (8) of this section.

(1) You must always operate and maintain your affected source, including air pollution control equipment.

(2) You must prepare an annual compliance certification according to the requirements specified in §63.11509(c), “Notification, Reporting, and Recordkeeping,” and keep it in a readily-accessible location for inspector review.

(3) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(3)(i) through (iii) of this section.

(i) You must record that you have added the wetting agent/fume suppressant to the tank bath in the original make-up of the tank.

(ii) For tanks where the wetting agent/fume suppressant is a separate purchased ingredient from the other tank additives, you must demonstrate continuous compliance according to paragraphs (d)(3)(ii) (A) and (B) this section.

(A) You must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

(B) You must record each addition of wetting agent/fume suppressant to the tank bath.

(iii) You must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(4) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a control system to comply with this subpart; an affected dry mechanical polishing operation that is subject to §63.11507(e); or an affected thermal spraying operation that is subject to §63.11507(f)(1) or (2), you must demonstrate continuous compliance according to paragraphs (d)(4)(i) through (v) of this section.

(i) You must operate and maintain the control system according to the manufacturer's specifications and instructions.

(ii) Following any malfunction or failure of the capture or control devices to operate properly, you must take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions.

(iii) You must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(iv) You must record the results of all control system inspections, deviations from proper operation, and any corrective action taken.

(v) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(5) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply with this subpart by limiting the plating time for the affected tank, you must demonstrate continuous compliance according to paragraphs (d)(5)(i) through (iii) of this section.

(i) You must limit short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(ii) You must record the times that the affected tank is operated each day.

(iii) You must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(6) If you own or operate an affected batch electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements of §63.11507(a), "What are my standards and management practices?", or a flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), and you comply by operating the affected tank with a cover, you must demonstrate continuous compliance according to paragraphs (d)(6)(i) through (iii) of this section.

(i) You must operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(ii) You must record the times that the tank is operated and the times that the tank is covered on a daily basis.

(iii) You must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the electrolytic process time.

(7) If you own or operate an affected continuous electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you cover your tanks to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(7)(i) and (ii) of this section.

(i) You must operate the tank with at least 75 percent of the surface covered during all periods of electrolytic process operation.

(ii) You must state in your annual certification that you have operated the tank with 75 percent of the surface covered during all periods of electrolytic process operation.

(8) If you own or operate an affected tank or other operation that is subject to the management practices specified in §63.11507(g), "What are my standards and management practices?", you must demonstrate continuous compliance according to paragraphs (d)(8)(i) and (ii) of this section.

(i) You must implement the applicable management practices during all times that the affected tank or process is in operation.

(ii) You must state in your annual compliance certification that you have implemented the applicable management practices, as practicable.

**§ 63.11509 What are my notification, reporting, and recordkeeping requirements?**

(a) If you own or operate an affected source, as defined in §63.11505(a), "What parts of my plant does this subpart cover?", you must submit an Initial Notification in accordance with paragraphs (a)(1) through (4) of this section by the dates specified.

(1) The Initial Notification must include the information specified in §63.9(b)(2)(i) through (iv) of the General Provisions of this part.

(2) The Initial Notification must include a description of the compliance method (e.g., use of wetting agent/fume suppressant) for each affected source.

(3) If you start up your affected source on or before July 1, 2008, you must submit an Initial Notification not later than 120 calendar days after July 1, 2008.

(4) If you start up your new affected source after July 1, 2008, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(b) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with paragraphs (b)(1) and (2) of this section.

(1) The Notification of Compliance Status must be submitted before the close of business on the compliance date specified in §63.11506, "What are my compliance dates?"

(2) The Notification of Compliance Status must include the items specified in paragraphs (b)(2)(i) through (iv) of this section.

(i) List of affected sources and the plating and polishing metal HAP used in, or emitted by, those sources.

(ii) Methods used to comply with the applicable management practices and equipment standards.

(iii) Description of the capture and emission control systems used to comply with the applicable equipment standards.

(iv) Statement by the owner or operator of the affected source as to whether the source is in compliance with the applicable standards or other requirements.

(c) If you own or operate an affected source, you must prepare an annual certification of compliance report according to paragraphs (c)(1) through (7) of this section. These reports do not need to be submitted unless a deviation from the requirements of this subpart has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in §63.11507(a)(1), "What are my standards and management practices?", you must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(2) If you own or operate any one of the affected sources listed in paragraphs (c)(2)(i) through (iii) of this section, you must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(i) Electroplating, electroforming, or electropolishing tank that is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a control system to comply with this subpart;

(ii) Dry mechanical polishing operation that is subject to §63.11507(e); or

(iii) Permanent thermal spraying operation that is subject to §63.11507(f)(1) or (2).

(3) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply with this subpart by limiting the plating time of the affected tank, you must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(4) If you own or operate an affected batch electrolytic process tank that is subject to the requirements of §63.11507(a) or a flash or short-term electroplating tank that is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the electrolytic process time.

(5) If you own or operate an affected continuous electrolytic process tank that is subject to the requirements of §63.11507(a), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must state in your annual certification that you have covered at least 75 percent of the surface area of the tank during all periods of electrolytic process operation.

(6) If you own or operate an affected tank that is subject to the management practices specified in §63.11507(g), "What are my standards and management practices?", you must state in your annual compliance certification that you have implemented the applicable management practices, as practicable.

(7) Each annual compliance report must be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation has occurred during the year, each annual compliance report must be submitted along with the deviation report, and postmarked or delivered no later than January 31 of the year immediately following the reporting period.

(d) If you own or operate an affected source, and any deviations from the compliance requirements specified in this subpart occurred during the year, you must report the deviations, along with the corrective action taken, and submit this report to the delegated authority.

(e) You must keep the records specified in paragraphs (e)(1) through (3) of this section.

(1) A copy of any Initial Notification and Notification of Compliance Status that you submitted and all documentation supporting those notifications.

(2) The records specified in §63.10(b)(2)(i) through (iii) and (xiv) of the General Provisions of this part.

(3) The records required to show continuous compliance with each management practice and equipment standard that applies to you, as specified in §63.11508(d), "What are my compliance requirements?"

(f) You must keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1) of the General Provisions to part 63. You may keep the records offsite for the remaining 3 years.

**Other Requirements and Information**

**§ 63.11510 What General Provisions apply to this subpart?**

If you own or operate a new or existing affected source, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 1 of this subpart.

**§ 63.11511 What definitions apply to this subpart?**

Terms used in this subpart are defined in this section.

*Batch electrolytic process tank* means a tank used for an electrolytic process in which a part or group of parts, typically mounted on racks or placed in barrels, is placed in the tank and immersed in an electrolytic process solution as a single unit (i.e., as a batch) for a predetermined period of time, during which none of the parts are removed from the tank and no other parts are added to the tank, and after which the part or parts are removed from the tank as a unit.

*Bath* means the liquid contents of a tank that is used for electroplating, electroforming, electropolishing, or other metal coating processes at a plating and polishing facility.

*Capture system* means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device, as part of a complete control system. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

*Cartridge filter* means a type of control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM from a gas stream by sieving and other mechanisms. Cartridge filters can be designed with single use cartridges, which are removed and disposed after reaching capacity, or continuous use cartridges, which typically are cleaned by means of a pulse-jet mechanism.

*Composite* mesh pad means a type of control device similar to a mesh pad mist eliminator except that the device is designed with multiple pads in series that are woven with layers of material with varying fiber diameters, which produce a coalescing effect on the droplets or PM that impinge upon the pads.

*Continuous electrolytic process tank* means a tank that uses an electrolytic process and in which a continuous metal strip or other type of continuous substrate is fed into and removed from the tank continuously. This process is also called reel-to-reel electrolytic plating.

*Control device* means equipment that is part of a control system that collects and/or reduces the quantity of a pollutant that is emitted to the air. The control device receives emissions that are transported from the process by the capture system.

*Control system* means the combination of a capture system and a control device. The capture system is designed to collect and transport air emissions from the affected source to the control device. The overall control efficiency of any control system is a combination of the ability of the system to capture the air emissions (i.e., the capture efficiency) and the control device efficiency. Consequently, it is important to achieve good capture to ensure good overall control efficiency. Capture devices that are known to provide high capture efficiencies include hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans.

*Cyanide plating* means plating processes performed in tanks that use cyanide as a major bath ingredient and that operate at pH of 12 or more, and use or emit any of the plating and polishing metal HAP, as defined in this section. Electroplating and electroforming are performed with or without cyanide. The cyanide in the bath works to dissolve the HAP metal added as a cyanide compound (e.g., cadmium cyanide) and creates free cyanide in solution, which helps to corrode the anode. These tanks are self-regulating to a pH of 12 due to the caustic nature of the cyanide bath chemistry. The cyanide in the bath is a major bath constituent and not an additive; however, the self-regulating chemistry of the bath causes the bath to act as if wetting agents/fume suppressants are being used and to ensure an optimum plating process. All cyanide plating baths at pH

greater than or equal to 12 have cyanide-metal complexes in solution. The metal HAP to be plated is not emitted because it is either bound in the metal-cyanide complex or reduced at the cathode to elemental metal, and plated onto the immersed parts. Cyanide baths are not intentionally operated at pH less 12 since unfavorable plating conditions would occur in the tank, among other negative effects.

*Deviation* means any instance in which an affected source or an owner or operator of such an affected source:

(1) Fails to meet any requirement or obligation established by this rule including, but not limited to, any equipment standard (including emissions and operating limits), management practice, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this rule and that is included in the operating permit for any affected facility required to obtain such a permit; or

(3) Fails to meet any equipment standard (including emission and operating limits), management standard, or operation and maintenance requirement in this rule during startup, shutdown, or malfunction.

*Dry mechanical polishing* means a process used for removing defects from and smoothing the surface of finished metals and formed products after plating with any of the plating and polishing metal HAP, as defined in this section, using hard-faced abrasive wheels or belts and where no liquids or fluids are used to trap the removed metal particles.

*Electroforming* means an electrolytic process using or emitting any of the plating and polishing metal HAP, as defined in this section, that is used for fabricating metal parts. This process is essentially the same as electroplating except that the plated substrate (mandrel) is removed, leaving only the metal plate. In electroforming, the metal plate is self-supporting and generally thicker than in electroplating.

*Electroless plating* means a non-electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Electroless plating is also called non-electrolytic plating. Examples include, but are not limited to, chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

*Electrolytic plating processes* means electroplating and electroforming that use or emit any of the plating and polishing metal HAP, as defined in this section, where metallic ions in a plating bath or solution are reduced to form a metal coating on the surface of parts and products using electrical energy.

*Electroplating* means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metal ions in solution are reduced onto the surface of the work piece (the cathode) via an electrical current. The metal ions in the solution are usually replenished by the dissolution of metal from solid metal anodes fabricated of the same metal being plated, or by direct replenishment of the solution with metal salts or oxides; electroplating is also called electrolytic plating.

*Electropolishing* means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a work piece is attached to an anode immersed in a bath, and the metal substrate is dissolved electrolytically, thereby removing the surface contaminant; electropolishing is also called electrolytic polishing.

*Fabric filter* means a type of control device used for collecting PM by filtering a process exhaust stream through a filter or filter media. A fabric filter is also known as a baghouse.

*Flash electroplating* means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or no more than 1 cumulative hour per day.

*General Provisions of this part (40 CFR part 63, subpart A)* means the section of the Code of Federal Regulations (CFR) that addresses air pollution rules that apply to all HAP sources addressed in part 63, which includes the National Emission Standards for Hazardous Air Pollutants (NESHAP).

*HAP* means hazardous air pollutant as defined from the list of 188 chemicals and compounds specified in the CAA Amendments of 1990; HAP are also called “air toxics.” The five plating and polishing metal HAP, as defined in this section, are on this list of 188 chemicals.

*High efficiency particulate air (HEPA) filter* means a type of control device that uses a filter composed of a mat of randomly arranged fibers and is designed to remove at least 99.97 percent of airborne particles that are 0.3 micrometers or larger in diameter.

*Mesh pad mist eliminator* means a type of control device, consisting of layers of interlocked filaments densely packed between two supporting grids that remove liquid droplets and PM from the gas stream through inertial impaction and direct interception.

*Metal coating operation* means any process performed either in a tank that contains liquids or as part of a spraying operation that applies one or more plating and polishing metal HAP, as defined in this section, to parts and products used in manufacturing. These processes include but are not limited to: Non-chromium electroplating; electroforming; electropolishing; other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying.

*New source* means any affected source for which you commenced construction or reconstruction after March 14, 2008.

*Non-cyanide electrolytic plating and electropolishing processes* means electroplating, electroforming, and electropolishing that uses or emits any of the plating and polishing metal HAP, as defined in this section, performed without cyanide in the tank. These processes do not use cyanide in the tank and operate at pH values less than 12. These processes use electricity and add or remove metals such as metal HAP from parts and products used in manufacturing. Both electroplating and electroforming can be performed with cyanide as well.

*Non-electrolytic plating* means a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Non-electrolytic plating is also called electroless plating. Examples include chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

*Packed-bed scrubber* means a type of control device that includes a single or double packed bed that contains packing media on which PM and droplets impinge and are removed from the gas stream. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.

*Plating and polishing facility* means a facility engaged in one or more of the following processes that uses or emits any of the plating and polishing metal HAP, as defined in this section: Electroplating processes other than chromium electroplating (i.e., non-chromium electroplating); electroless plating; other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; thermal spraying; and the dry mechanical polishing of finished metals and formed products after plating.

*Plating and polishing metal HAP* means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form, with the exception of lead. Any material that does not contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight, and does not contain manganese in amounts greater than or equal to 1.0 percent by weight, as reported on the Material Safety Data Sheet for the material, is not considered to be a plating and polishing metal HAP.

*Plating and polishing process tanks* means any tank in which a process is performed at an affected plating and polishing facility that uses or has the potential to emit any of the plating and polishing metal HAP, as defined in this section. The processes performed in plating and polishing tanks include the following: Electroplating processes other than chromium electroplating (i.e., non-chromium electroplating) performed in a tank; electroless plating; and non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and electropolishing. This term does not include tanks containing solutions that are used to rinse or wash parts prior to placing the parts in a plating and polishing process tank, or subsequent to removing the parts from a plating and polishing process tank. This term also does not include thermal spraying or dry polishing with machines.

*PM* means solid or particulate matter that is emitted into the air.

*Research and development process unit* means any process unit that is used for conducting research and development for new processes and products and is not used to manufacture products for commercial sale, except in a *de minimis* manner.

*Short-term plating* means an electroplating process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or 1 hour cumulative per day.

*Tank cover* for batch process units means a solid structure made of an impervious material that is designed to cover the entire open surface of a tank or process unit that is used for plating or other metal coating processes.

*Tank cover* for continuous process units, means a solid structure or combination of structures, made of an impervious material that is designed to cover at least 75 percent of the open surface of the tank or process unit that is used for continuous plating or other continuous metal coating processes.

*Temporary thermal spraying* means a thermal spraying operation that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that lasts no more than 1 hour in duration during any one day and is conducted in situ. Thermal spraying that is conducted in a dedicated thermal spray booth or structure is not considered to be temporary thermal spraying.

*Thermal spraying* (also referred to as metal spraying or flame spraying) is a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a metallic coating is applied by projecting molten or semi-molten metal particles onto a substrate. Commonly-used thermal spraying methods include high velocity oxy-fuel (HVOF) spraying, flame spraying, electric arc spraying, plasma arc spraying, and detonation gun spraying.

*Water curtain* means a type of control device that draws the exhaust stream through a continuous curtain of moving water to scrub out suspended PM.

*Wetting agent/fume suppressant* means any chemical agent that reduces or suppresses fumes or mists from a plating and polishing tank by reducing the surface tension of the tank bath.

**§ 63.11512 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g), of the General Provisions of this part.

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9), of the General Provisions of this part.

(3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f), of the General Provisions of this part. A “major change to test method” is defined in §63.90.

(4) Approval of a major change to monitoring under §63.8(f), of the General Provisions of this part. A “major change to monitoring” is defined in §63.90.

(5) Approval of a major change to recordkeeping and reporting under §63.10(f), of the General Provisions of this part. A “major change to recordkeeping/reporting” is defined in §63.90.

**§ 63.11513 [Reserved]**

**Table 1 to Subpart WWWWWW of Part 63. Applicability of General Provisions to Plating and Polishing Area Sources**

As required in §63.11510, "What General Provisions apply to this subpart?", you must meet each requirement in the following table that applies to you.

| Citation | Subject |
|---|---|
| 63.1 | Applicability. |
| 63.2 | Definitions. |
| 63.3 | Units and abbreviations. |
| 63.4 | Prohibited activities. |
| 63.6(a), (b)(1)–(b)(5), (c)(1), (c)(2), (c)(5), (j) | Compliance with standards and maintenance requirements. |
| 63.10(a), (b)(1), (b)(2)(i)–(iii),(xiv), (b)(3), (d)(1), (f) | Recordkeeping and reporting. |
| 63.12 | State authority and delegations. |
| 63.13 | Addresses of State air pollution control agencies and EPA regional offices. |
| 63.14 | Incorporation by reference. |
| 63.15 | Availability of information and confidentiality. |

[1]Section 63.11505(e), "What parts of my plant does this subpart cover?", exempts affected sources from the obligation to obtain title V operating permits.

UNITED TECHNOLOGIES CORPORATION

Facility ID No.: 0990021

Palm Beach County, Florida

**DRAFT**
**Title V Air Operation Permit Renewal/Revision**
**0990021-013-AV; 0990021-014-AV; 0990021-015-AV**

**Permitting Authority:**
Air Pollution Control Section
Palm Beach County Health Department
P.O. Box 29 (800 Clematis Street)
West Palm Beach, FL 33402-0029
Telephone: (561) 837-5900
Fax: (561) 837-5925

# Title V Air Operation Permit Renewal/Revision

## DRAFT Permit Nos.:
## 0990021-013-AV; 0990021-014-AV; 0990021-015-AV

## Table of Contents

Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

**PERMITTEE**
United Technologies Corporation
P.O. Box 109600
West Palm Beach, FL 33410-09600

**Permit Nos.**: 0990021-013-AV/014-AV/015-AV
**Facility ARMS ID No.**: 0990021
**SIC No.**: 8062
**Project**: Title V Air Operation Permit Renewal/Renewal

**Responsible Official:**
Stephen Bouley, Vice President
Pratt & Whitney Rocketdyne, Launch Vehicle and Hypersonic Systems

| | |
|---|---|
| **Effective Date:** | **DRAFT** |
| **Renewal Application Due Date:** | **DRAFT** |
| **Expiration Date:** | **DRAFT** |

The purpose of this permit is to renew the Title V Air Operation Permit and incorporate a construction permit Nos. 0990021—010-AC, and 0990021-012-AC, issued on October 13, 2008, and November 17, 2008. This permit also incorporates permit No. 0990020-020-AC (intent was issued July 30, 2010) that contains the emission units at Pratt & Whitney and Sikorsky.

**Project Location**: 17900 Beeline Highway (SR 710), Jupiter, FL 33478
**UTM Coordinates:** Zone 17; 564.9 km E; 2977.3 km N
**Latitude**: 26° 54′ 59″ North / Longitude: 80° 20′ 47″ West

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**
**APPENDIX TV-6:** TITLE V CONDITIONS version dated 06/23/2006
**Appendix C:** Testing Procedures
**Appendix ZZZZ**: Applicable Requirements from 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines
**Appendix WWWWWW**: National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations

**DRAFT**

_____
James E. Stormer, Q.E.P., Environmental Administrator
Air & Waste Section
Division of Environmental Health and Engineering

## SECTION I. FACILITY INFORMATION

### Subsection A. Facility Description

Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

P&W was issued a Title V air operation permit by the Health Department on July 17, 2004 (FDEP Permit No. 0990021-006-AV), and was designated as a major source of criteria pollutants, including nitrogen oxides (NOx) and carbon monoxide (CO). In addition, P&W is a major source of volatile organic compounds (VOC), as defined by Title V regulations.

SAC, which is located on the same campus but in a wholly separate building, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing, and the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility. SAC was issued a Federally Enforceable State Operating Permit (FESOP) by Health Department on February 2, 2007 (FDEP Permit No. 0990185-004-AF) and is designated as a synthetic minor source for hazardous air pollutants (HAPs).

FDEP deemed that P&W and SAC are under common control, and thus should have a common Title V air operating permit. The permittee submitted an application that included two sites. The applicant also requested an air construction permit to designate the combined facility as a synthetic minor source for HAPs.

This Title V permit revision/renewal also incorporates the conditions of the construction permits 0990021-010-AC (emission unit #080), and 0990021-012-AC (emission unit # 079), and 0990021-020-AC (to combine both sites and to designate the facility as synthetic minor for HAPs).
Based on the Title V Air Operation Permit Renewal application received March 08, 2010, this facility is not a major source of hazardous air pollutants (HAPs).

### Subsection B. Summary of Emissions Unit ID Nos and Brief Descriptions

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| 001 | I | Air compressors/heater (ACHR-2-B2)<br>*[This EU is no longer in operation and is removed per Applicant's request]* |
| 009 | U | Diesel storage tanks |
| 010 | U | Jet fuel storage tanks |
| 012 | R | Jet fuel storage tank (F-8-CFF) |
| 014 | R | Paint spray booth (PS-1-TMC) used for refinishing support equipment |
| 015 | U | Closed-loop flush cleaning (BF-1-RL-10) using Vertrel MCA |
| 016 | R | Boiler (BO-12-E6) fired by natural gas – 42 MMBTU/hr Heat Input |
| 018 | U | Acid gas scrubbing system (AS-2-MPL) for plating operations |
| 021 | I | Alkali scrubbing system (AS-15-MPL) controls nickel and silver plating lines<br>*[This EU is no longer in operation and is removed per Applicant's request]* |
| 022 | R | Boilers (BO-1-MBH, BO-2-MBH) fired by natural gas – 54 MMBTU/hr Heat Input per Boiler |
| 031 | U | Diesel storage tanks (DL-19-SEGF and DL-20-SEGF) |
| 037 | U | AST Gasoline storage tanks |
| 040 | U | Heat treatment furnaces (FU-3-MHT and FU-4-MHT) fired by natural gas |

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| 045 | U | Water evaporator (EV-1-MW) |
| 049 | U | Plasma spray booths |
| 053 | I | Woodshop dust collector (DC-1-MM)<br>[This EU is no longer in operation and is removed from the permit per Applicant's request] |
| 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) |
| 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 – 6.7 MMBTU/Hr Heat Input |
| 068 | R | Emergency electrical generating facility |
| 069 | U | JP-8 Fueled Jet engine test stands – Test Area A/C |
| 070 | U | Aerospace hand-wiping operations |
| 071 | U | Aerospace spray gun cleaning operations |
| 072 | U | Aerospace flush cleaning operations |
| 073 | U | Aerospace primer and topcoat application operations |
| 074 | U | Aerospace waste storage and handling operations |
| 075 | I | LOX/Kerosene rocket engine test stand<br>[This EU was never constructed and is removed from the permit per Applicant's request] |
| 076 | I | Kerosene Fuel Storage Tank<br>[This EU is no longer in operation and is removed from the permit per Applicant's request] |
| 077 | R | Combustion turbine test stands – Fired by Natural Gas |
| 078 | R | Vertrel Vapor Degreaser |
| 079 | R | Two JP8 fired Turbine Engines |
| 080 | R | E-8 Rocket Engine Test Stand |
| ***Following emission units are located at Sikorsky Aircraft Corporation*** | | |
| na | I | Inactive (EU 001 of Sikorsky permit – 0990185-004-AF) |
| na | I | Inactive (EU 002 of Sikorsky permit – 0990185-004-AF) |
| na | I | Inactive (transferred to ARMS EU No. 0990021-063) |
| na | I | Inactive (transferred to ARMS EU No. 0990021-064) |
| na | I | Inactive (spray booth PS-15-SIK has been removed) (EU 007 of Sikorsky permit – 0990185-004-AF) |
| 081 | R | SYK - Spray Booth (PS-14-SIK) [Previously EU 006 in Sikorsky permit] |
| 082 | R | SYK - Spray Booth (PS-16-SIK) [Previously EU 008 in Sikorsky permit] |
| na | I | Spray Booth (PS-13-SIK) (EU 010 of Sikorsky permit – 0990185-004-AF) Unit is removed |
| 083 | R | SYK - Boiler (BO-4-SIK) [Previously EU 009 in Sikorsky permit] |

* (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.

** I = Inactive

***Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.***

**Subsection C. Relevant Documents.**

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H, Permit History
Statement of Basis

These documents are on file with the permitting authority:

| | |
|---|---|
| Initial Title V Air Operation Permit (0990021-0002-AV) issued | 01/06/1999 |
| Application for a Title V Air Operation Permit Renewal (0990021-013-AV) received | 12/03/2008 |
| Additional Information Request dated | 12/31/2008 |
| Additional Information Response received | 04/02/2009 |
| Application for Title V Air Operating Permit Revision (0990021-014-AV) received | 03/18/2009 |
| Additional Information Request dated | 04/29/2009 |
| Application for Title V Air Operating Permit Revision (0990021-015-AV) received | 04/30/2009 |
| Additional Information Response received | 7/16/2009 |
| Additional Information Request dated | 08/10/2009 |
| Additional Information Response received | 03/08/2010 |
| Application for a concurrent construction permit (0990021-020-AC) received | 03/08/2010 |
| Additional Information Request dated | 04/06/2010 |
| Additional Information Response received | 06/04/2010 |

## SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

### The following conditions apply facility-wide:

**1. Emissions of Hazardous Air Pollutants (HAPs): The facility-wide emissions of a single HAP are limited to 9.9 tons in any consecutive 12-month period (rolling total). The facility-wide emissions of total HAPs are limited to 24.9 tons in any consecutive 12-month period (rolling total). The permittee shall monitor the emissions of HAPs pursuant to the condition 17 of this Section.**
**[Applicant's request to become a synthetic minor facility for HAPs; Permit No. 0990021-020-AC (DRAFT)]**

**2.** APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

**3.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
**[Rule 62-296.320(2), F.A.C.; and, 0990021-020-AC]**

**4.** General Particulate Emission Limiting Standards. General Visible Emissions Standard.
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall 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 that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
**[Rules 62-296.320(4)(b)1. & 4., F.A.C.]**

**5.** Prevention of Accidental Releases (Section 112(r) of CAA).
**a.** The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, MD 20703-1515
Telephone: 301/429-5018

and,
**b.** The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
**[40 CFR 68]**

**6.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to 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 or systems deemed necessary and ordered by the Department.

**"Nothing was deemed necessary and ordered at this time."**

**[Rule 62-296.320(1)(a), F.A.C.; and, revision/renewal Title V permit application received March 08, 2010.**

**7.** Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS):

**SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS**

The following requirements are "not federally enforceable":

a. Paving and maintenance of roads , parking areas, and yards;
b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
c. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings, or work areas to prevent particulates from becoming airborne.
d. Landscaping or planting of vegetation
e. Use of hoods, fans, filters, and similar equipment to contain, capture, and/or vent particulate matter
f. Confining abrasive blasting where possible

**[Rule 62-296.320(1)(a), F.A.C.; 0990021-020-AC (draft); and, proposed by the applicant in the revision/renewal Title V permit application received March 08, 2010.]**

**8.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
**[Rule 62-213.440, F.A.C.]**

**9.** Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
**[Rules 62-213.440(3) and 62-213.900, F.A.C.]**

*{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS)}*

**10.** The permittee shall submit all compliance related notifications and reports required of this permit to the Palm Beach County Health Department office.

Palm Beach County Health Department
Air & Waste Section
800 Clematis Street, West Palm Beach, FL 33401
Ph: 561-837-5900; Fax: 561-837-5295

**11.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

**12.** Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
**[Rule 62-213.420(4), F.A.C.]**

**SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS**

**13.** Annual Operations Report: Before April 1st of each year, the owner or operator shall submit an Annual Operations Report *[DEP Form No. 62-210.900(5)]* to the Palm Beach County Health Department which summarizes operations for the previous calendar year. If the report is submitted, using the Department's electronic annual operating report software (EAOR), there is no requirement to submit a copy to DEP or the Palm Beach County Health Department. **[Rule 62-210.370(3), F.A.C.]**

**14.** Annual Emissions Fee: The permittee must pay between January 15 and March 1 of each year, upon written notice from the Department, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

**15.** Permit Renewal: For purposes of permit renewal, a timely application is one that is submitted 225 days before the expiration of a permit [**Rule 62-213.420(1)(a)2. F.A.C.]**

**16.** Test Procedures: All test methods and procedures shall be performed in accordance with the applicable requirements of Chapter 62-297, F.A.C., summarized in *Appendix C* of this permit. **[Rule 62-297.100, F.A.C.]**

**17. Annual HAP Emissions – Recordkeeping: The permittee shall monitor compliance with the HAPs emissions limits, specified in condition 2.1 of this section, on a monthly basis. If the facility-wide rolling 12-month total emissions do not exceed 80% of the HAPs emission limits as specified, the permittee shall continue to monitor facility-wide HAPs emissions on a monthly basis (rolling 12-month total). If the facility-wide rolling 12-month total emissions of HAPS exceed 80% of the HAPs emissions limits as specified, the permittee shall monitor facility-wide HAPs emissions on a daily basis (rolling 365-day total). When the facility-wide rolling 365-day total emissions of HAPs do not exceed 80% of the specified HAPS emissions limits for 30 consecutive days, then monthly monitoring of HAPs emissions can be resumed. [Rule 62-4.070(3), F.A.C.]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**SUBSECTION A. This subsection of the permit addresses the following unregulated emissions units:**

| EU NO | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 009 | U | **Miscellaneous diesel storage tanks** located throughout the facility, including:<br><br>SCC #4-03-010-19: diesel, breathing loss; SCC #4-03-010-21: diesel, working loss<br>*{Permitting Note: The total storage capacity for this group of tanks is 13,640 gallons.}*<br><br>(DL-1AFP): 540 gallon diesel tank<br>(DL-1- MFP): 250 gallon diesel tank<br>(DL-1- MMG): 150 gallon diesel tank<br>(DL-5-SIKTFP): 250 gallon diesel tank<br>(DL-7-CFP): 350 gallon diesel tank<br>(DL-8-ESFP): 550 gallon diesel tank<br>(DL-10-ENFP): 1000 gallon diesel tank<br>(DL-16-C11FP): 250 gallon diesel tank<br>(DL-18-C14FP): 300 gallon diesel tank<br>(DL-22-RTF): 350 gallon diesel tank<br>(DL-21-C14G): 50 gallon diesel tank<br>(DL-2-MMG): 1000 gallon diesel tank<br>(DL-13-MHT): 2500 gallon diesel tank<br>(DL-23-TAB): 5000 gallon diesel tank<br>(DL-1-TABG): 50 gallon diesel tank<br>(DL-1-RSG): 50 gallon diesel tank<br>(DL-24-RTFG): 1000 gallon diesel tank |
| 010 | U | Miscellaneous jet fuel storage tanks located throughout the facility, including:<br><br>SCC #4-03-010-16: jet fuel, standing loss; SCC #4-03-010-18: jet fuel, withdrawal loss<br>*{Permitting Note: The total storage capacity for this group of tanks is 2,232,825 gallons}*<br><br>(F-1-CFF): 1,000,000 gallon jet fuel tank<br>(F-3-CFF): 150,000 gallon jet fuel tank<br>(F-5-CFF): 1,000,000 gallon jet fuel tank<br>(F-7-A): 10,000 gallon salvage jet fuel tank<br>(F-17-B2): 7,000 gallon jet fuel tank<br>(F-45-A1): 10,000 gallon jet fuel tank<br>(F-35E-BO): 8,000 gallon jet fuel tank<br>(F-37-C11): 275 gallon jet fuel tank<br>(F-39-C14): 275 gallon jet fuel tank<br>(F-40-C12): 275 gallon jet fuel tank<br>(F-41-D): 8,000 gallon jet fuel tank<br>(F-42-B): 10,000 gallon jet fuel tank<br>(F-43-B): 10,000 gallon jet fuel tank<br>(F-44-B): 8,000 gallon jet fuel tank<br>(F-46-B): 1,000 gallon jet fuel tank<br>(F-28-R): 10,000 gallon jet fuel tank |
| 012 | U | One million gallon jet fuel, floating roof storage tank (F-8-CFF) located in the Test Area fuel farm; constructed during 1986 and exempt from NSPS Kb due to vapor pressure criteria (Floating Roof Tank)<br><br>SCC #4-03-011-13: jet fuel, standing loss; SCC #4-03-001-19: jet fuel, Working loss |
| 015 | U | Closed-loop halogenated flush cleaning process (BF-1-RL-10) using Vertrel MCA.<br><br>Located in the RL-10 /SSME Rocket Assembly Area consisting of back flushing of rocket engines located in Manufacture Area using Vertrel MCA Solvent<br><br>4-01-002-95: Gallons used<br><br>*{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, which regulates 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".}*<br><br>*A process change completed in November 2002 has eliminated the use of trichloroethylene plant-wide. A Subpart T non-regulated solvent, Vertrel MCA, is used instead. Currently, no activities subject to NESHAP, Subpart T remain at the facility.* |

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

| EU No | R / U* | Brief Description |
|---|---|---|
| 018 | U | Acid gas scrubbing system (AS-2-MPL) for Nickel and Silver plating operations located in the Manufacture Area.<br>With an estimated scrubbing efficiency of 98%; Ceilcote Model #VCP-78<br>3-01-888-01: tons of product used |
| 031 | U | 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 and exempt from NSPS.<br>SCC #4-03-010-19: diesel, breathing loss; SCC #4-03-010-21: diesel, working loss |
| 037 | U | Tank (GA-1R-TAB): 5,000 gallon gasoline; exempt from NSPS<br>SCC #4-04-002-02: gasoline (RVP-10), breathing loss; SCC #4-04-002-05: gasoline (RVP-10), working loss |
| 040 | U | Two heat treatment furnaces (FU-3-MHT and FU-4-MHT), each with a heat input rate of 6 mmBTU / hour located in the Manufacture Area; both are Sunbeam box-type furnaces and burn natural gas only.<br>SCC #1-02-006-02: natural gas combustion, 10 - 100 mmBTU per hour |
| 045 | U | Water evaporator (EV-1-MW) with a heat input rate of 0.2 mmBTU/hour located in the Manufacture Area; Dayton Model # 2C820, burns natural gas only.<br>SCC #1-02-006-03: natural gas combustion, < 10 mmBTU per hour |
| 049 | U | Plasma Spray Booths. These spray booths are used to coat rocket engine parts with a metal and/or ceramic coating. Process does not use organic coatings.<br>SCC # 3-09-040-01: tons of sprayed metal; SCC # 3-09-060-99: tons of material processed |
| 059 | U | Miscellaneous fuel and air heaters located in the different Test Areas.<br>These heaters are used to heat JP-8 fuel and/or air for testing jet engine components, and are fired with natural gas only.<br><br>SCC #3-90-006-99: natural gas combustion<br>Air heater (HR-22-D1) with a design heat input rate of 7 mmBTU per hour, Test Area D<br>Air heater (HR-23-D3) with a design heat input rate of 4 mmBTU per hour, Test Area D<br>Air heater (HR-26-D4) with a design heat input rate of 4 mmBTU per hour, Test Area D<br>Air heater (HR-27-D5) with a design heat input rate of 4 mmBTU per hour, Test Area D<br>Air heater (HR-28-D7) with a design heat input rate of 6 mmBTU per hour, Test Area D<br>Air heater (HR-29-A4) with a design heat input rate of 7 mmBTU per hour, Test Area A<br>Air heater (HR-17-D2) with a design heat input rate of 15 mmBTU per hour, Test Area D<br>Fuel heater (HR-1-A9) with a design heat input rate of 16 mmBTU per hour, Test Area A |
| 063 | U | Woodshop dust collector (DC-1-RTF)<br>Torit Model # 140-15<br>The dust collector is used to control sawdust from model making operations.<br>SCC # 3-07-030-02: tons of wood waste processed |

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

| EU No | R / U* | Brief Description | | | |
|---|---|---|---|---|---|
| 065 | U | Diesel engines powering emergency equipment including fire protection pumps, backup generators and cooling water pumps during rocket engine testing.<br>SCC # 2-04-004-02: Thousand gallons of diesel fuel<br>Equipment listed below: | | | |
| | | Equipment | Location | Equipment No | Diesel Tank ID |
| | | Fire Pump | EOB Lake | C038806 | DL-1-MFP |
| | | Fire Pump | C11 | CO47146 | DL-16-C11FP |
| | | Fire Pump | C12/14 | CO49074 | DL-18-C14FP |
| | | Fire Pump | A4 | CO43466 | DL-1-AFP |
| | | Fire Pump | C10 | CO51454 | DL-7-CFP |
| | | Fire Pump | E Area North | CO52350 | DL-10-ENFP |
| | | Fire Pump | E Area South | CO51279 | DL-8-ESFP |
| | | Fire Pump | Remote Test Facility | CO50190 | DL-22-RTF |
| | | Generator | Heat Treat | CO39024 | DL-13-MHT |
| | | Generator | K-17 | CO42502 | DL-2-MMG |
| | | Generator | Maintenance | CO51880 | DL-1-MMG |
| | | Generator | C Area Training | CO46467 | DL-21-C14G |
| | | Generator | Building TAB | CO40336 | DL-1-TABG |
| | | Generator | Generator | CO46466 | DL-1-RSG |
| | | Generator | Rocket Support Remote Test Facility | CO56179 | DL-24-RTFG |

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

| EU No | R / U* | Brief Description |
|---|---|---|
| 069 | U | 10 existing jet engine test stands, consisting of:<br><br>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)<br><br>4 stands for testing commercial aircraft engines located at the west end plant site of Test Area C (C-10, C-11, C-12, and C-14)<br><br>The stands are estimated to operate approximately 10,000 engine hours and consume approximately 12 million gallons of jet fuel.<br><br>SCC # 2-02-009-01: 1000 gallons of jet fuel burned<br><br>*{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:*<br><br>*The Department would not require air pollution permits for the individual test stands nor the relocatable jet engines. The Department would not specify conditions in other permits that would affect the scheduling or utilization of individual test stands or relocatable jet engines. 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.*<br><br>*However, recent guidance from the EPA (listed below) indicates that jet engine test stands are considered to be stationary sources of air pollution.*<br><br>*12-31-95: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells*<br><br>*03-12-96: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells*<br><br>*09-23-96: EPA-APT to Mr. John R. McDowell, PE: Title V Applicability Issues Related to the Cincinnati/Northern Kentucky International Airport*<br><br>*Therefore, the Health Department establishes the jet engine test stands as existing, "unregulated" stationary emissions units with no limits on operation.}* |
| 070 | U | Aerospace hand-wiping operations:<br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-01-003-98: gallons of solvent consumed |

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

| EU No | R / U* | Brief Description |
|---|---|---|
| 071 | U | Aerospace spray gun cleaning operations subject to NESHAP Subpart GG<br><br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-02-999-98: gallons of solvent consumed |
| 072 | U | Aerospace flush cleaning operations<br><br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-01-003-98: gallons of solvent consumed |
| 073 | U | Aerospace primer and topcoat applications (paint booth PS-4-MM is currently out-of-service but is not demolished and was used for support equipment and not for any aircraft part only or products.<br><br>This emission unit was engaged in manufacturing of military jet engines, and hence was subject to 40 CFR 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities." However, Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. The current operations are exempt from Subpart GG based on 40 CFR 63.741(f) & (h).<br>If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.<br><br>SCC # 4-02-001-10: gallons used |
| 074 | U | Aerospace waste storage and handling operations subject to NESHAP, Subpart GG – Currently operating under a RCRA permit, therefore, exempt from Subpart 40 CFR 63 Subpart GG, based on 40 CFR 63.741(e).<br><br>SCC # 5-03-008-30: 1000 each-year containers used |

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

### AIR POLLUTION CONTROL EQUIPMENT

A.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.
**[Permit No. 0990021-020-AC]**

### PERFORMANCE STANDARDS

A.2 Emission Units #70, #71, #72, and #73: If the facility re-engages in jet engine activities, then the facility shall apply and obtain a permit revision prior to the start-up of such activities.
**[Permit No. 0990021-020-AC]**

A.3 Hours of Operation: The hours of operation of these emissions units are not limited (8760 hours per year).
**[Permit No. 0990021-020-AC]**

A.4 Allowable Fuels: Fuel combustion is limited to only those fuels listed in the above description of each emissions unit.
**[Permit No. 0990021-020-AC]**

### COMPLIANCE MONITORING REQUIREMENTS

A.5 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.
**[Permit No. 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**SUBSECTION B:** *This subsection addresses the following emissions units:*

| EU No. | R / U* | BRIEF DESCRIPTION |
|---|---|---|
| 014 | R | **Paint spray booth (PS-1-TMC)**<br>Located in open hanger with no forced exhaust or filtration located in the rocket support Test Area E; used to *refinish* metal parts of support equipment<br><br>SCC #4-02-001-10: Gallons of Coating |
| 064 | R | **Paint spray booth (PSB-1-RTF)** with panel filter located in the Remote Test Facility;<br>Binks Model # CA-528-T-LH, and it is used to *refinish* metal parts of support equipment or to coat prototype, non-production parts. Stack details: Height 46', exit diameter 3', and 16,400 ACFM.<br><br>SCC #4-02-001-10: 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.* ***EU # 14:*** *The potential emissions of HAPs are 2.51 tons per year.* ***EU # 64:*** *The potential emissions of HAPs are 4.57 tons per year.}*

### AIR POLLUTION CONTROL EQUIPMENT AND METHODS

B.1 Particulate Control: Particulate matter emissions from paint overspray shall be controlled by:

(a) *EU #014(PS-1-TMC):* 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) *EU #064 (PSB-1-RTF)*: Forced exhaust from each spray booth through mat or panel filters.
**[Permit No. 0990021-020-AC]**

### EMISSION LIMITING AND PERFORMANCE STANDARDS

B.2 Operational Restrictions:

(a) The hours of operation for these emissions units are not limited (8760 hours per year).
**[Rule 62-210.200 (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-TMC)*: 11.50 tons of VOC per consecutive 12 months, rolling total.
**[Rule 62-210.200 (PTE), F.A.C. and Applicant Request]**

1. *EU #064 (PSB-1-RTF)*: 2.84 tons per year.
**[Rule 62-296.500(3)(b), F.A.C. and Permit No. AC-50-168734]**

(c) Emission of Hazardous Air Pollutants (HAPs) are subject to the Facility-wide condition # 1.
**[Applicant's Request, Permit No. 0990021-020-AC]**

### COMPLIANCE MONITORING REQUIREMENTS

B.3 VOC Content: The volatile organic compound (VOC) and Hazardous Air Pollutant (HAP) content of all coatings, thinners, and cleaners shall be determined by the Manufacturer Safety Data Sheets (MSDS), or 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., and Permit No. 0990021-020-AC]**

B.4 Daily Spray Log: For each day of operation, the permittee shall record the following information in a written log, or an equivalent electronic recordkeeping system, provided records can be generated when requested by the Health Department:

(a) Date of operation;
(b) Identification of each VOC/HAP-containing material used (i.e., paints, thinners, cleaners, resins, adhesives, etc.); and

**SECTION III: EMISSION UNIT SPECIFIC CONDITIONS**

(c) Quantity of each VOC/HAP-containing material used to nearest tenth of a gallon.

**[Permit No. 0990021-020-AC]**

B.5 Monthly Operations Log: The permittee shall demonstrate compliance with the VOC/HAP limits on a monthly basis by keeping a written log, or an equivalent electronic recordkeeping system, provided records can be generated when requested by the Health Department, of the operations. Prior to the 20th 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/HAP-containing material used during the previous month.

(c) Calculated emissions of VOC/HAP 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/HAP 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/HAP content of coating, thinner, or cleaner reported from MSDS

*The actual equations and calculations are left to the discretion of the permittee, but they 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.*

**[Permit No. 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**Subsection C:** *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<br>Scotch Marine Model# 100 HP. Stack details: Height 15', exit diameter 2.5', with 6690 ACFM.<br><br>SCC #1-02-006-02: natural gas, external combustion - 10-100 mmbtu/hr |
| 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<br>Superior Model# 300-HSGL. Stack details: Height 66', exit diameter 7.6', with 91000 ACFM (Identical for two boilers)<br><br>SCC #1-02-006-02: natural gas, external combustion - 10-100 mmbtu/hr |
| 066 | R | **Boiler (BO-14-E8)** with a heat input rate of 7 mmBTU per hour located in the Test Area E.<br>200 Hp Johnson Model No. PFTA 200-4P300-S, fired by propane only. Stack details: Height 24', exit diameter 1', with 2765 ACFM<br><br>SCC #1-03-010-02: propane, external combustion |

*{Permitting Note: Thee boilers (EU 016 & 022) are not subject to 40 CFR 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" since these boilers are constructed before June 9, 1989. EU 066 is not subject to Subpart Dc since its heat input is less than 10 MMBtu/hr.}*

### Emission Limiting and Performance Standards

C.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.]**

C.2 Particulate Matter and Sulfur Dioxide: Emissions of particulate matter and sulfur dioxide shall be controlled using the Best Available Control Technology (BACT). BACT for these boilers is firing only pipeline quality natural gas or commercial grade propane.
**[Rule 62-296.406(2), F.A.C., Applicant Request, and Permit No. 0990021-020-AC]**

C.3 Unrestricted Hours of Operation: The hours of operation for the boilers are not are not limited (8760 hours per year).
**[Permit No. 0990021-020-AC]**

### Compliance Monitoring Requirements

C.4 Fuel Use Records: In lieu of conducting annual visible emission observations, the permittee can demonstrate compliance with the visible emission standards by maintaining fuel use records that document the exclusive use of pipeline quality natural gas or commercial grade propane to fuel the boilers during the previous federal fiscal year.
**[Permit No. 0990021-020-AC]**

### Reports Required

C.5 Record Keeping requirements: The permittee shall be able to monitor and record the actual amount of fuel consumed and the operating hours on a monthly basis. All records shall be maintained on site at the facility. The annual amount of fuel consumed by these emission units shall be included in the Annual Operating Report (AOR), DEP Form N0.62-210.900(5), F.A.C.
[**Permit No. 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

Subsection D: *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**<br><br>This emission units consists of:<br>• 16 identical diesel engines, Detroit Diesel Model #32V-149-TIB-3200;<br>• Each engine consumes approximately 109.2 gallons of diesel fuel per hour; and<br>• A pair of engines powers a single generator for emergency electrical power demands.<br>• Stack Details: Height 12', exit diameter 0.8', and 14,980 ACFM volumetric flow rate.<br><br>SCC #2-03-001-01: Internal combustion, diesel fuel |

*{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. Therefore, 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 that are 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 less than 32,000 gallons of diesel fuel per year. In the initial Title V application, the applicant specifically requested a limit of less than 400 hours per year.}*

### Emission Limiting and Performance Standards

D.1 40 CFR 63 Subpart ZZZZ: These emission units are subject to the regulations of 40 CFR Part 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." Appendix ZZZZ is a part of this permit.
**[40 CFR 63 Subpart ZZZZ]**

D.2 NOx RACT Limit: Emissions of nitrogen oxides (NOx) from any oil-fired diesel generator shall not exceed 4.75 pounds per million BTU of heat input. 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.]**

D.3 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.]**

D.4 Hours of Operation: The permittee shall not operate any engine for more than 399 hours in any 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.
**[Permit No. 0990021-020-AC, Rule 62-210.200 (Def. of PTE), F.A.C. and Applicant Request]**

### Compliance Monitoring Requirements

D.5 Compliance Test Method: EPA Method 7 shall be used to determine compliance with the emission-limiting standard for nitrogen oxides. See *Appendix C* for applicable Test Methods and Procedures.
**[Rule 62-296.570(4)(a)3., F.A.C.]**

D.6 NOx 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). Annual compliance testing while firing oil is unnecessary for units operating on oil for less than 400 hours in the current federal fiscal year.
**[Rule 62-296.570(4)(a)3., F.A.C.]**

### Records

D.7 Fuel Records: The permittee shall record 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. Permittee shall maintain documentation that the fuel does not exceed 0.05% sulfur content. All records shall be maintained on site at the facility.

**SECTION III: EMISSION UNIT SPECIFIC CONDITIONS**

**[Permit No. 0990021-020-AC, and Rule 62-210.370(3), F.A.C.]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**Subsection E:** *This subsection addresses the following emissions units:*

| EU No. | R / U* | Brief Description |
|---|---|---|
| 077 | R | **Combustion Turbine Test Stands**<br>Natural Gas firing at the combustion turbine test stands that use wet, dry, and low-NOx technologies.<br>SCC # 1-02-006-02: MMCF Natural gas burned |

### Emission Limiting and Performance Standards

E.1 Permitted Capacity: The permittee shall not allow, cause, suffer or permit the operation of the modified test stands in excess of the following capacities without prior authorization from the Permitting Authority:

(a) *Annual Natural Gas Usage*: The permittee is authorized to use a maximum of 992 million standard cubic feet of natural gas per year (12-month rolling total) based on the method of operation.

(b) *Maximum Natural Gas Usage*: The permittee is authorized to fire a maximum of 0.310 million standard cubic feet of natural gas per hour while conducting R&D and QA & QC activities.

**[Permit No. 0990021-020-AC]**

E.2 Hours of Operation: The permittee is authorized to operate the combustion turbine test stands continuously within the limits specified in this permit. **[Permit No. 0990021-020-AC]**

E.3 Modes/Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method(s) of operation resulting in emissions in excess of limits specified in Specific **Condition III.E.4** of this permit without prior authorization from the Permitting Authority. The authorized modes and methods of operation include the following:

(a) *Research & Development Activities*: The permittee is authorized to conduct R&D activities related to the firing of natural gas in the combustion turbines using either wet, dry, or low-NOx control technologies.

(b) *QA/QC Activities*: The permittee is authorized to conduct QA/QC activities related to the firing of natural gas in the combustion turbines using either wet, dry, or low-NOx control technologies.

**[Permit No. 0990021-020-AC]**

*{Permitting Note: Prior authorization includes the issuance of construction, reconstruction, or modification permits or a determination by the Permitting Authority that the action is not subject to Rule 62-210.300(1), F.A.C. The limits of this permit do not apply to fuel oil firing.}*

### Emission Limitations and Standards

E.4 Emission Limitations: The permittee shall not allow, cause, suffer or permit emissions in excess of the following limitations without prior authorization from the Permitting Authority:

(a) *Oxides of Nitrogen*: Emissions shall not exceed 39.9 tons per year (12-month rolling total).
(b) *Carbon Monoxide*: Emissions shall not exceed 99.9 tons per year (12-month rolling total).

**[Permit No. 0990021-020-AC]**

### Compliance Monitoring Requirements

E.5 Emissions Inventory: The permittee shall maintain a current emissions inventory for each combustion turbine model tested. As a minimum, the emissions inventory shall be reviewed and revised semi-annually, as needed. The emissions inventory shall include the following information:

(a) Combustion Turbine Model No.
(b) Mode of Operation [R&D Activities or QA/QC Activities].
(c) Method of Operation [Wet, Dry, or Low NOx]
(d) Emissions data for NOx and CO based on load, water to fuel ratio (if applicable), ambient temperature, ambient pressure, and relative humidity.

**SECTION III: EMISSION UNIT SPECIFIC CONDITIONS**

**[Permit No. 0990021-020-AC]**

*{Permitting note: When establishing the inventory, the permittee may use single worst-case emissions over the various loads for either a mode or method of operation. The complexity and detail of the inventory is at the option of the permittee, provided sufficient background information is available for the Health Department to document the emissions inventory assumptions if required.}*

E.6 Quality Assurance Plan (QAP): The permittee shall prepare a written QAP for the Emissions Inventory requirement of **Condition III.E.5** of this permit. The QAP shall, as a minimum, require periodic sampling and analysis of the exhaust gas temperature and concentrations of oxygen, NOx and CO. The QAP shall be implemented once actual NOx or CO emissions equal or exceed eighty (80) percent of the 12-month rolling totals of **Condition III.E.4** The permittee may elect to use a portable Combustion Gas Analyzer provided the unit is operated and maintained in accordance with the manufacturer's instructions or equivalent test method.
**[Permit No. 0990021-020-AC]**

E.7 Continuous Emissions Monitoring System (CEMS): The permittee may in-lieu of the emissions inventory and QAP requirements of **Conditions III.E.5** and **III.E.6**, elect to use a CEMS for monitoring and tracking emissions of NOx and CO. The CEMS system shall be installed, operated, and maintained in accordance with the performance specifications of 40 CFR 60 Appendices B and F as adopted in Rule 62-297.520, F.A.C.
**[Permit No. 0990021-020-AC]**

*{Permitting note: The applicant is being required to maintain an emissions inventory to ensure that the facility does not exceed the major source thresholds for PSD. The Health Department's intent is that the permittee will maintain a sufficient inventory to document actual emissions on a monthly basis in accordance with the most recent emissions data. It is not the Health Department's intent to back-calculate annual emissions in the event new data are made available. However, the Health Department is requiring the permittee to use the most recent factors to calculate test emissions once any revised factors are made available and comply with the emission limits of this permit.}*

**RECORDKEEPING AND REPORTING**

E.8 Operating Records: The permittee shall maintain the following records:

1. Test Number (Assigned by P&W).
2. Test Date (MM/DD/YY).
3. Test Mode (R&D or QA/QC).
4. Test Method (Wet, Dry, or Low-NOx).
5. Ambient Conditions (Temperature, Pressure, and Relative Humidity) during each test.
6. Test data examples include Load (%), Duration at each Load Point (min.), Water to Fuel ratio, and test duration.
7. Emissions estimates for the Oxides of Nitrogen (NOx) and Carbon Monoxide (CO) in pounds per test based on the Emissions Inventory Data of Condition III.E.5
8. Annual Emissions for NOx and CO based on a 12-month rolling total calculated by 20$^{th}$ of each month.

**[Permit No. 0990021-020-AC]**

*{Permitting Note: The permittee may elect to use an electronic recordkeeping system in the format of either a spreadsheet or database provided records can be generated when requested by the Health Department.}*

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

Sub Section F: *This subsection addresses the following emissions units:*

| EU No. | R / U* | Brief Description |
|---|---|---|
| 078 | R | **Vertrel Vapor Degreaser**<br>This degreaser uses the Vertrel® MCA specialty fluid and was manufactured by Forward Tech Industries, Inc.<br><br>SCC # 4-01-002-99: tons of solvent used |

*{Permitting Note: Vertrel proprietary solvents do not contain any HAPs and are not subject to 40 CFR 63 ( NESHAP) Subpart T "National Emission Standards for Halogenated Solvent Cleaning"}*

**Emission Limiting and Performance Standards**

F.1 Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method of operation without prior authorization from the Permitting Authority. The authorized methods of operation include the following:

(a) *Open Top Area*: The vapor degreaser shall not have an open top area equal to or greater than 10.8 square feet (one square meter). **[Rule 62-296.511(1)(b)1., F.A.C., and Permit No. 0990021-020-AC]**

(b) *Degreasing Solvent*: The degreasing solvent shall not contain any halogenated solvent(s) regulated under 40 CFR part 63, Subpart T, any listed hazardous air pollutants regulated under Section 112 of the federal Clean Air Act as of November 1, 2001, or any listed ozone depleting compounds regulated under Title VI of the federal Clean Air Act as of November 1, 2001. **[Permit No. 0990021-020-AC]**

(c) *Solvent Usage:* Annual consumption of degreaser solvent shall not exceed 2,230 gallons per year. **[Permit No. 0990021-020-AC]**

F.2 Control Technology: The permittee shall not allow, cause, suffer or permit the operation of the unit without the following controls in-place and operating without prior authorization from the Permitting Authority. The control technologies include the following: **[Permit No. 0990021-020-AC, Rule 62-296.511(3), F.A.C.]**

(a) The vapor degreaser shall be equipped with a cover that can be opened and closed easily without disturbing the vapor zone.

(b) The vapor degreaser shall be equipped with the following safety switches:

(1) A condenser flow switch and thermostat which shuts off the heat if the condenser coolant is either not circulating or too warm; and

(2) A spray safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 centimeters) below the bottom condenser coil; and

(3) A vapor level control thermostat, which shuts off the heat when the vapor level rises to high.

(c) The cover shall be kept closed at all times except when processing work loads through the degreaser.

(d) Minimize solvent carryout by the following methods:

(1) Racking parts to allow complete drainage; and

(2) Moving parts in and out of the degreaser at less than 11 feet per minute (3.3 meters per minute); and

(3) Holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and

(4) Decanting any pools of solvent on the cleaned parts before removal from the vapor zone; and

(5) Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry.

(e) Do not degrease porous or absorbent materials, such as cloth, leather, wood, or rope.

(f) Do not occupy more than half of the degreaser's open-top area with a workload.

(g) Do not load the degreaser to the point where the vapor level would drop more than 4 inches (10 centimeters) below the bottom condenser coil when the workload is removed from the vapor zone.

(h) Always spray below the vapor zone.

(i) Repair solvent leaks immediately, or shut down the degreaser.

(j) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party such that greater than 20 percent of the waste solvent (by weight) can evaporate to the atmosphere.

(k) Do not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator.

(l) Do not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 66 cubic feet per minute per square foot (20 cubic meters per minute per square meter) of degreaser open area, unless necessary to meet OSHA requirements.

(m) Provide a permanent, conspicuous label, summarizing the operating procedure of **Conditions III.F.2.(c)** through **III.F.2.(l)** of this permit.

F.3 Hours of Operation: The permittee is authorized to operate continuously within the limits of this permit.
**[Permit No. 0990021-020-AC]**

**COMPLIANCE MONITORING**

F.4 Test Method: EPA Method 21 shall be use to determine volatile organic compound emissions from the vapor degreaser. **[Permit No. 0990021-020-AC, and Rule 62-296.511(5)(a), F.A.C.]**

F.5 Leak Detection and Repair Program: The permittee shall implement a leak detection and repair (LDR) program that includes a monthly inspection of the vapor degreaser in conjunction with the operating records of **Condition III.F.6.** The program shall as a minimum include the following:

(a) Visual Inspection of the degreaser and equipment area for signs of liquid leaks.

(b) Repair of any leak within 72 hours of detection.

(c) Test all repairs for leaks in accordance with **Condition III.F.4** of this permit.

**[Permit No. 0990021-020-AC]**

**RECORD KEEPING REQUIREMENTS**

F.6 Monthly Operating Records: The permittee shall maintain the following records for a period of 5 years either in electronic or written form:

(a) Date (Month, Day, & Year)
(b) Solvent Added to the Degreaser (Gallons)
(c) Solvent Removed from the Degreaser (Gallons)
(d) Net Gallons used for the period (Added-Removed)
(e) LDR Program Inspection Results
(f) LDR Program Repairs
(g) Volatile Organic Compound Emissions on a 12-month rolling total calculated by 20$^{th}$ of each month.
(h) Emission of Hazardous Air Pollutants (HAPs) on a 12-month rolling total basis shall be calculated by 20$^{th}$ of each month, to demonstrate compliance with the Facility-wide condition No. 1.

**[Permit No. 0990021-020-AC]**

*{Permitting Note: The permittee may elect to use an electronic recordkeeping system in the format of either a spreadsheet or database provided records can be generated when requested by the Health Department.}*

**REPORTING REQUIREMENTS**

F.7 Solvent Operation Records: The permittee shall be able to track the actual amount of solvent throughput and VOC/HAP emissions for this emission unit, reportable on an annual basis in the Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C. The permittee shall submit an Annual Operating Report *[DEP Form No. 62-210.900(5), F.A.C.]*, before April 1 of each year.
**[Permit No. 0990021-020-AC, and Rule 62-210.370, F.A.C.]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**Sub Section G: This subsection of the permit addresses the following group of emissions units:**

| EU ID No | Emissions Unit Description |
|---|---|
| 079 | **Two GG4-9A JP-8 Fired Combustion Turbines (Regulated)**<br><br>These units are rated at 19.5 MW, the maximum operating load will be limited to 12.3 MW as requested by applicant. The maximum heat input has been estimated to be about 232.1 MMBTU/hr. The maximum hourly consumption of fuel is estimated to be 29 gallons per minute per engine. |

*{Permitting Note: The potential emissions of NOx and CO from this emission unit are estimated to be 36.7 and 42.5 tons per year respectively. The project remains as a minor modification under PSD regulations since the project's maximum increase in criteria pollutant emissions for CO and NOx will remain below 100 and 40 tons per year, which are the PSD significant emission rates.}*

### Operating Restrictions

G.1 Permitted Capacity: The permittee shall not allow, cause, suffer or permit the operation of the combustion turbines in excess of the following capacities without prior authorization from the Permitting Authority:

- The maximum operating load for each of the combustion turbines is 12.3 MW. The turbines are allowed to burn only JP-8 fuel.
  **[Permit No: 0990021-020-AC]**

G.2 Individual Hours of Operation: The permittee shall not operate any one gas turbine for more than 375 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. **[Permit No: 0990021-020-AC]**

*{Permitting Note: The restriction on operating hours of each turbine limits the potential emissions of NOx and CO to 36.7 and 42.5 tons per year respectively}*

G.3 Combined Hours of Operation: The combined hours of operation of both gas turbines shall not exceed 750 hours per consecutive 12 months, rolling total. **[Permit No: 0990021-020-AC]**

### Emission Limiting and Performance Standards

G.4 RACT Standards for Nitrogen Oxides (NOx): Emissions of NOx from each gas turbine shall not exceed 0.90 lb/MMBtu while firing JP-8 fuel oil. As the turbines are substantially similar, compliance with this limit could be demonstrated by a stack test on one representative turbine unit within a facility. **[Rule 62-296.570(4)(b)5, F.A.C.]**

*{Permitting Note: The facility conducted NOx emissions test on July 31, 2008, and demonstrated compliance with 0.90 lb/MMBtu at various load levels.}*

### Compliance Assurance Monitoring

G.5 Emissions Inventory: The permittee shall maintain a current emissions inventory for each combustion turbine. As a minimum, the emissions inventory shall be reviewed and revised monthly, as needed. The emissions inventory shall include the following information:

(e) Combustion Turbine No.
(f) The hourly average operating load (psia),
(g) The hourly average heat input rate (mmbtu/hr)
(h) Monthly Hours of Operation.
(i) Monthly Fuel consumption [Gallons of JP-8]
(j) Monthly Heat Input [Million BTU/Month]
(k) Average Operating Load [MW] as determined by parametric monitoring (i.e. fuel consumption, assumed efficiency, rpm, etc.) based on a 30-day average.
(l) Emissions data for NOx and CO based on load, water to fuel ratio (if applicable), ambient temperature, ambient pressure, and relative humidity. **[Permit No: 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

G.6 Compliance with RACT Standards: Rule 62-296.570(4)(b)5, F.A.C. establishes a NOx emission limiting standard for gas turbines firing fuel oil at 0.90 lb/MMBTU. For units that do not use continuous emission monitors (CEMs), compliance with this emission limit shall be demonstrated through annual stack testing. Rule 62-296.570(4)(a)3, F.A.C. exempts oil-fired units from annual testing requirements if they operate on oil for less than 400 hours per year.

The permittee proposed to limit the hours of operation of each individual turbine to 375 hours per federal fiscal year (October 1- September 30), thus avoiding the need to conduct compliance stack testing on an annual basis. If the rolling 12-month hours of operations exceed 375 hours, the permittee shall notify the Palm Beach County Health Department within 48 hours of the exceedance and conduct a compliance stack for NOx within 30 days of exceeding the 400-hour/yr. **[Rule 62-296.570(4)(a)3, F.A.C., and Permit No: 0990021-020-AC]**

G.7 The permittee shall monitor hourly average operating load (psia) and hourly heat input rate (mmbtu/hr). The emission factors developed, during the stack test conducted on July 31, 2008, at each operating load (psia) shall be used in estimating the monthly NOx and CO emissions. The monthly emissions estimates are used in calculating the 12-month rolling emissions of NOx and CO. The yearly estimates of NOx and CO shall be below the PSD significant emission rates as specified in Chapter 62-212, F.A.C. **[Permit No: 0990021-020-AC]**

G.8 Special Compliance Tests: When the Health Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a DEP rule or permit is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Health Department.
**[Rule 62-297.310(7)(b), F.A.C.]**

**REPORTING AND RECORDKEEPING REQUIREMENTS**

G.9 Monthly Emission Records: The permittee shall maintain monthly emission records as described in **Specific Condition G.5** of this permit, on or before the 20th of each month, to summarize the emissions of NOx and CO for the previous 12 months. These records shall include, as a minimum, the monthly emissions and the rolling 12-month total emissions for NOx and CO. These records shall be kept on site for a period of no less than five years and be made available to PBCHD representatives upon request. **[Permit No: 0990021-020-AC]**

G.10 Excess Emissions Reporting: If excess emissions occur, the permittee shall notify the Palm Beach County Health Department (PBCHD) within one (1) working day of the discovery of the excess emission occurrence. The notification shall include the following information: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. Within five (5) days following the initial notification, the owner or operator shall submit a report summarizing the incident to the PBCHD. The incident summary shall include all the information required in the initial notification plus any additional information regarding further actions taken to prevent future excess emissions from occurring. Neither of these notification requirements shall release the permittee from any liability for failure to comply with FDEP rules. **[Permit No: 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**SUBSECTION H. This subsection of the permit addresses the following group of emissions units:**

| EU ID NO | STATUS | BRIEF DESCRIPTION |
|---|---|---|
| 080 | Regulated | **E-8 Rocket Engine Test Stand**<br>The test stand consists of the Test Site and Propellant Storage Area (PSA). The facility proposes to burn liquid & gaseous methane / liquid oxygen as fuel. This emission unit also has the capability to burn liquid hydrogen/liquid oxygen as fuel.<br>Currently, the E-8 test stand contains four John Zink utility flares, and three of these flares will be used to burn methane. The facility also proposes to install a burn stack at the PSA to burn any excess methane vented during tanking and pumping.<br>Liquid methane is stored in one 14,000-gallon storage tank and one 3,600-gallon run tank. The total maximum storage of methane at the test stand will be 93,500 lbs. |

*The E-8 Test stand burn stack includes three John Zink utility flares (BS 202, BS 203 & BS 204). The Propellant Storage Area (PSA) includes the use of one John Zink flare (BS 2002). The facility revised the emissions of Carbon Monoxide (CO) using NASA –Glenn CEA 2002 Software program – that was used for estimating the rocket engine performance. This software was not available to the facility during the initial preparation of the permit application. According to the revised estimations, the CO emissions are 71.24 tons per year, which is still below the significant emission increase, and the emissions of the project are below the PSD thresholds. The previously estimated CO emissions were 24.27 tons per year.*
*The total emission unit wide CO and NOx emissions are estimated to be 71.24 and 0.19 tons per year respectively. The project remains as a minor modification under PSD regulations since the project's maximum increase in criteria pollutant emissions for CO and NOx will remain below 100 and 40 tons per year, which are the PSD significant emission rates. This emission unit is not subject to 40 CFR Part 63 Subpart PPPP "National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands", since the test stand is used exclusively for testing rocket engines.*

**Operating Restrictions**

H.1 Methods of Operation: The permittee shall not allow, cause, suffer or permit any change in the method(s) of operation resulting in increased short-term or long-term potential emissions, without prior authorization from the permitting authority. The authorized methods of operation include the following.

(a) Fuels: The permittee is authorized to use methane, liquid hydrogen, and liquefied natural gas as rocket engine fuels.

(b) Oxidants: The permittee is authorized to use liquid oxygen (LOX) as the rocket engine fuel oxidizer.

**[Permit No. 0990021-020-AC]**

H.2 Methane consumption limit: Rocket engine firings shall not consume more than **265,300 pounds (liquid) OR 5.940 mmcf (gaseous) of methane** in any calendar year.
**[Permit No. 0990021-020-AC]**
*{**Permitting Note:** Based on the fuel consumption limit and the revised emission estimations submitted on 10/09/2008, the emission unit's potential CO emissions are 71.34 tons per year.}*

H.3 Hours of Operation: This emission unit is allowed to operate continuously without exceeding the methane consumption limit as specified in **condition H.2.**
**[Permit No. 0990021-020-AC]**

### Compliance Monitoring & Record Keeping Requirements

H.4 Fuel Consumption: The permittee shall record and maintain records of the monthly methane consumption at this emission unit. The permittee shall record the same by 20th of the following month. The permittee shall monitor compliance with the annual methane consumption limit, specified in **condition H.2**.

**[Permit No. 0990021-020-AC]**

H.5 Record Keeping: The permittee shall maintain the following records:
(a) Test Identification number
(b) Test date and Time (start and finish)

**SECTION III: EMISSION UNIT SPECIFIC CONDITIONS**

(c) Test duration (planned and actual)
(d) Oxidant and fuel types
(e) Oxidant/fuel ratio (planned and actual)
(f) Fuel usage, and
(g) Daily and Monthly totals of test duration, test firings, and fuel usage.

**[Permit No. 0990021-020-AC]**

**Reporting Requirements**

H.6 Test Notification: The permittee shall submit the notification to the PBCHD at least 24 hours prior to a rocket engine test firing. The notification shall include the date and time of the test firing, the expected duration of the test firing, the planned oxidant/fuel ratio, and the planned fuel usage rate.

**[Air Permit No. 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**Sub Section I: This subsection of the permit addresses the following group of emissions units:**

| EU ID No | Status | Emissions Unit Description |
|---|---|---|
| 081 | Regulated | **Spray Booth (PS-14-SIK): Binks Model PFA-8-7-T-LH spray booth**<br><br>This booth controls particulate matter emissions with large, dry panel filters; controlled emissions of particulate matter and uncontrolled emissions of volatile organic compounds are discharged at 50 feet above ground level at ambient temperature from a stack with a 2-foot diameter and a maximum flow rate of 7400 acfm.<br>***This emission unit was previously permitted as EU # 006 in Sikorsky's air permit – 0990185-004-AF.***<br>SCC# 4-02-001-10: gallons of coating |
| 082 | Regulated | **Spray Booth (PS-16-SIK): Binks auto spray booth**<br><br>This booth controls particulate matter emissions with large, dry panel filters; controlled emissions of particulate matter and uncontrolled emissions of volatile organic compounds are discharged at 50 feet above ground level at ambient temperature from two identical stacks each with a 5-foot diameter and a maximum flow rate of 27,000 acfm.<br>***This emission unit was previously permitted as EU # 008 in Sikorsky's air permit – 0990185-004-AF.***<br>SCC# 4-02-001-10: gallons of coating |

*{Permitting Note: These units were previously included in a separate air permit issued to Sikorsky Aircraft Corporation, Inc (0990185-001-AF). During the review of application for permit renewal for Pratt & Whitney, it was determined that permits for these two facilities will be combined into one permit, with United Technologies Corporation as the permittee. Potential emissions of HAPs from EU 081 are2.1 tons per year. Potential emissions of HAPs from EU 082 are 7.5 tons per year.}*

*The operation of the spray booths includes the following miscellaneous activities:*

- *Cleaning operations (hand-wipe, spray gun cleaning, and flush cleaning)*
- *Depainting operations (media blasting, high intensity UV light blasting, and chemical stripping)*
- *Chemical milling and maskant operations*
- *Coating operations (primer, top coat, and clear coat)}*

### Emission Limiting and Performance Standards

I.1 Air Pollution Control Equipment: In accordance with the manufacturer's recommendations, the permittee shall install, operate, and maintain the following control devices:

(a) *Emissions Unit # 081*: A Binks Model PFA-8-7-T-LH spray booth (or equivalent) with large, dry panel filters, exhaust fan, ductwork, and stack to control particulate matter emissions from surface coating operations. This spray booth is identified by the facility as PS-14-SIK. **[Permit No. 0990021-020-AC]**

(b) *Emissions Unit # 082*: A Binks auto spray booth (or equivalent) with large, dry panel filters, exhaust fan, ductwork, and stack to control particulate matter emissions from surface coating operations. This spray booth is identified by the facility as PS-16-SIK. **[Permit No. 0990021-020-AC]**

I.2 Circumvention: All air pollution control equipment shall be on line and function properly during surface coating operations. **[Permit No. 0990021-020-AC]**

I.3 Hours of Operation: There are no restrictions on the hours of operation for these emissions units (8760 hours per year). **[Permit No. 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

I.4 Allowable Surface Coating: These spray booths may be used to surface coat the exteriors of aircraft and refinish miscellaneous parts and support equipment. The permittee is prohibited from surface coating any newly manufactured metal parts from any production line without first applying for a modification of this permit. **[Permit No. 0990021-020-AC]**

I.5 Volatile Organic Compounds (VOCs): Emissions of volatile organic compounds (VOCs) from all cleaning, depainting, maskant, priming, and coating operations shall not exceed **2.1** tons from PS-14-SK, and **7.5** tons from PS-16-SIK; in any consecutive 12 months, rolling total. **[Permit No. 0990021-020-AC]**

I.6 Hazardous Air Pollutants (HAPs): **Facility shall not exceed the limit of facility-wide hazardous air pollutants as specified in Section II Specific condition 1.**
**[Permit No. 0990021-020-AC]**

**COMPLIANCE MONITORING REQUIREMENTS**

I.7 HAP / VOC Content: The permittee shall maintain records at the facility of the content of volatile organic compounds (VOC) and hazardous air pollutants (HAP) in all raw materials used in the surface coating operations. The VOC and HAP of the raw materials shall be determined by Material Safety Data Sheets (MSDS) or engineering calculations. Equivalent methods may be used with prior written approval of the Health Department. **[Permit No. 0990021-020-AC]**

I.8 Spray Booth Usage Logs: For each spray booth, the permittee shall maintain a written log of the usage of coatings, thinners, cleaning agents, and other solvent containing materials. For each use of a spray booth, the operator shall record the following information:

- Date
- Identification of spray booth number (PS-14-SIK, or PS-16-SIK)
- Type of job or job identification number
- Name of coating, thinner, cleaning agent, or other solvent containing material used
- Quantity of material used to the nearest tenth of a gallon

At the end of each month, these log sheets shall be used to compile the Monthly Emissions Report. **[Permit No. 0990021-020-AC]**

I.9 Monthly Emissions Report: The permittee shall be able to demonstrate compliance with the emissions limiting and performance standards of this Subsection on a monthly basis by compiling a Monthly Emissions Report. Prior to the 20th calendar day of each month, the permittee shall calculate and record the following information for the previous month of operation in a written report:

- Month of operation.
- Type, VOC content, HAP content, and total monthly usage (to the nearest tenth of a gallon) of each material used during the month in the cleaning, depainting, maskant, and coating operations.
- Calculated monthly emissions of VOC, each HAP, and combined total HAPs.
- Calculated rolling 12-month total emissions of VOC, each HAP, and combined total HAPs.

The 12-month rolling total pollutant emission rate shall be the sum of the emissions calculated for the given month of operation and the emissions calculated for the previous consecutive 11 calendar months. Calculations must assume 100% of the VOCs and HAPs in the raw materials are emitted to the atmosphere. The actual format of the equations, the calculations, and the report are left to the discretion of the permittee and may be performed by a computer spreadsheet or database, provided the methodology and calculations are defined in the report.

The Monthly Emissions Reports are to be kept on site at the facility and made available to the Health Department upon request. In addition, these reports shall be used to complete the Annual Operating Report, *DEP Form No. 62-210.900(5)*, which is submitted to the Health Department before April 1 of each year. **[Permit No. 0990021-020-AC]**

## SECTION III: EMISSION UNIT SPECIFIC CONDITIONS

**SUBSECTION J. This subsection of the permit addresses the following emissions unit:**

| *EU ID No* | STATUS | EMISSIONS UNIT DESCRIPTION |
|---|---|---|
| 083 | Regulated | **Small Boiler (BO-4-SIK):** Steam boiler model CBH-70 is manufactured by Cleaver Brooks and identified by the facility as BO-4-SIK.<br><br>SCC# 1-02-006-03: MMCF Gas burned<br>*This unit has a design heat input of 2.93 mmBTU per hour (2845 cubic feet of natural gas per hour). Products of incomplete combustion are discharged to the atmosphere 60 feet above ground level from a 12-inch diameter stack at 200°F exit temperature.* |

*{Permitting Note: This emission unit was previously permitted as EU # 009 in Sikorsky's permit – 0990185-004-AF. This boiler is not subject to 40 CFR 60 Subpart Dc, since the heat input is less than 10 MMBtu/hr}*

**EMISSION LIMITING AND PERFORMANCE STANDARDS**

J.1 Visible Emissions 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.]**

J.2 Particulate Matter and Sulfur Dioxide: Emissions of particulate matter and sulfur dioxide shall be controlled using the Best Available Control Technology (BACT). BACT for these boilers is firing only pipeline quality natural gas.
**[Rule 62-296.406(2), F.A.C., Applicant Request]**

J.3 Fuel Limitations: In order to comply with the Best Available Control Technology (BACT) determination for particulate matter and sulfur dioxide, fuel shall be limited to pipeline quality natural gas. **[Rule 62-296.406, F.A.C. and Permit No. 0990021-020-AC, Applicant Request]**

J.4 Unrestricted Hours of Operation: The hours of operation for this emissions unit are not limited.
**[Permit No. 0990021-020-AC]**

**COMPLIANCE MONITORING REQUIREMENTS**

J.5 Fuel Use Records: In lieu of conducting annual visible emission observations, the permittee can demonstrate compliance with the visible emission standards by maintaining fuel use records that document the exclusive use of pipeline quality natural gas to fuel during the previous federal fiscal year.
**[Permit No. 0990021-020-AC]**

J.6 Record Keeping requirements: The permittee shall be able to monitor and record the actual amount of natural gas consumed and the operating hours on a monthly basis. All records shall be maintained on site at the facility. The annual amount of natural gas consumed by this emission unit shall be included in the Annual Operating Report (AOR), DEP Form N0.62-210.900(5), F.A.C. **[Rule 62-210.370, F.A.C.]**

SECTION III
EMISSION UNIT SPECIFIC CONDITIONS

**SUBSECTION K. This subsection of the permit addresses the following emissions unit:**

| *EU ID No* | STATUS | EMISSIONS UNIT DESCRIPTION |
|---|---|---|
| 084 | Regulated | **Single Chrome Conversion Tank**<br>This tank has 10 gallons capacity.<br><br>The tank is used to apply alodine, a chromate conversion process, to production parts. Other parts are immersed. Other parts have the alodine brush applied. This process uses hexavalent chromium. The tank vents to general area ventilation. |

*{Permitting Note: This emission unit is subject to 40 CFR part 63 Subpart WWWWWW "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations." Chromate conversion coating is a type of conversion coating applied to passivate aluminum to slow corrosion.*
*The facility submitted the notification of compliance status under Subpart WWWWWW for this emission unit on June 23, 2010.}*

**PERFORMANCE STANDARDS:**

K.1 This emission unit is subject to 40 CFR part 63 Subpart WWWWWW "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations." Appendix WWWWWW is a part of this permit.
**[Permit No. 0990021-020-AC]**

K.2 The tank shall be covered as specified in Subpart WWWWWW.
**[Permit No. 0990021-020-AC]**

## APPENDIX A
## Lists of Abbreviations, Acronyms, Rule Citation Formats, and Identification Formats

**° F**: degrees Fahrenheit
**acfm**: actual cubic feet per minute
**AOR:** Annual Operating Report
**ARMS**: Air Resource Management System (Department's database)
**BACT**: best available control technology
**Btu**: British thermal units
**CAM**: compliance assurance monitoring
**CEMS**: continuous emissions monitoring system
**cfm**: cubic feet per minute
**CFR**: Code of Federal Regulations
**CO**: carbon monoxide
**COMS**: continuous opacity monitoring system
**DARM**: Division of Air Resources Management
**DCA**: Department of Community Affairs
**DEP**: Department of Environmental Protection
**Department**: Department of Environmental Protection
**dscfm**: dry standard cubic feet per minute
**EPA**: Environmental Protection Agency
**ESP**: electrostatic precipitator (control system for reducing particulate matter)
**EU**: emissions unit
**F.A.C.**: Florida Administrative Code
**F.D.**: forced draft
**F.S.**: Florida Statutes
**FGR**: flue gas recirculation
**Fl**: fluoride
**$ft^2$**: square feet
**$ft^3$**: cubic feet
**gpm**: gallons per minute
**gr**: grains
**HAP**: hazardous air pollutant
**Hg**: mercury
**I.D.**: induced draft
**ID**: identification
**ISO:** International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and 101.3 kilopascals pressure.)
**kPa**: kilopascals
**LAT:** Latitude
**lb**: pound
**lbs/hr**: pounds per hour
**LONG:** Longitude
**MACT**: maximum achievable technology
**mm:** millimeter
**MMBtu**: million British thermal units
**MSDS**: material safety data sheets
**MW**: megawatt
**NESHAP**: National Emissions Standards for Hazardous Air Pollutants
**$NO_X$**: nitrogen oxides
**NSPS**: New Source Performance Standards
**O&M**: operation and maintenance
**$O_2$**: oxygen
**ORIS:** Office of Regulatory Information Systems
**OS:** Organic Solvent
**Pb**: lead
**PM**: particulate matter
**$PM_{10}$**: particulate matter with a mean aerodynamic diameter of 10 microns or less
**PSD**: prevention of significant deterioration
**psi**: pounds per square inch
**PTE**: potential to emit
**RACT**: reasonably available control technology
**RATA**: relative accuracy test audit
**RMP:** Risk Management Plan
**RO:** Responsible Official
**SAM**: sulfuric acid mist
**scf**: standard cubic feet
**scfm**: standard cubic feet per minute
**SIC**: standard industrial classification code
**SNCR**: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
**SOA**: Specific Operating Agreement
**$SO_2$**: sulfur dioxide
**TPH**: tons per hour
**TPY**: tons per year
**UTM**: Universal Transverse Mercator coordinate system
**VE**: visible emissions
**VOC**: volatile organic compounds
**x:** By or times

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**Citations:**

*The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.*

Code of Federal Regulations:

*Example*: **[40 CFR 60.334]**

**APPENDIX A**
**Lists of Abbreviations, Acronyms, Rule Citation Formats, and Identification Formats**

Where: 40 refers to Title 40
CFR refers to Code of Federal Regulations
60 refers to Part 60
60.334 refers to Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

*Example*: **[Rule 62-213.205, F.A.C.]**

Where: 62 refers to Title 62
62-213 refers to Chapter 62-213
62-213.205 refers to Rule 62-213.205, F.A.C.

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**Identification Numbers:**

Facility Identification (ID) Number:

*Example*: Facility ID No.: 1050221

*Where:*

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

*Example*: 1050221-002-AV, or
1050221-001-AC

*Where:*
AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221= 4-digit number assigned by permit tracking database
001 or 002= 3-digit sequential project number assigned by permit tracking database

*Example*: PSD-FL-185
PA95-01
AC53-208321
*Where:*
PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

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**APPENDIX C**
**TEST PROCEDURES - Rule 62-297.310, F.A.C.**

C.1 Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

C.2 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.301(2), F.A.C.]

C.3 Permitted Capacity: Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. **[Rule 62-297.310(2)(b), F.A.C.]**

C.4 Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. **[Rule 62-297.310(3), F.A.C.]**

C.5 Required Sampling Time: Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. **[Rule 62-297.310(4)(a)1, F.A.C.]**

C.6 Opacity Compliance Tests: When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

(a) For batch, cyclical processes, or other operations, which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

(b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.**[Rule 62-297.310(4)(a)2, F.A.C.]**

C.7 Minimum Sample Volume: Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet. **[Rule 62-297.310(4)(b), F.A.C.]**

**APPENDIX C**
**TEST PROCEDURES - Rule 62-297.310, F.A.C.**

C.8 Required Flow Rate Range: For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained. **[Rule 62-297.310(4)(c), F.A.C.]**

C.9 Allowed Modification to EPA Method 5: When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. **[Rule 62-297.310(4)(e), F.A.C.]**

C.10 Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. **[Rule 62-297.310(5)(a), F.A.C.]**

C.11 Calibration of Sampling Equipment: Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1. **[Rule 62-297.310(4)(d), F.A.C.]**

**Table 62-297.310-1**
**Calibration Schedule**

| Item | Minimum Calibration Frequency | Reference Instrument | Tolerance |
|---|---|---|---|
| Liquid in glass thermometer | Annually | ASTM Hg in glass ref. Thermometer or equivalent, or thermometric points | +/-2% |
| Bimetallic thermometer | Quarterly | Calib. liq. in glass thermometer | 5 degrees F |
| Thermocouple | Annually | ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer | 5 degrees F |
| Barometer | Monthly | Hg barometer or NOAA station | +/-1% scale |
| Pitot Tube | When required or when damaged | By construction or measurements in wind tunnel D greater than 16" and standard pitot tube | See EPA Method 2, Fig. 2-2 &2-3 |
| Probe Nozzles | Before each test or when nicked, dented, or corroded<br>Max. deviation between readings | Micrometer | +/-0.001" mean of at least three readings .004" |
| Dry Gas Meter and Orifice Meter | Full Scale: When received, When 5% change observed, Annually<br>1. One Point: Semiannually<br>2. Check after each test series | Spirometer or calibrated wet test or dry gas test meter<br>Comparison check | 2%<br>5% |

C.12 Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, Including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted

to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. **[Rule 62-297.310(5)(b), F.A.C.]**

C.13 Required Stack Sampling Facilities. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.
2. The ports shall be capable of being sealed when not in use.
3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance. 4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

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2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
(g) Sampling Equipment Support.
1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
a. The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.
3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

C.14 Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.
1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
a. Did not operate; or
b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
a. Visible emissions, if there is an applicable standard;
b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
c. Each NESHAP pollutant, if there is an applicable emission standard.

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5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

C.15 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct a special compliance test. The special compliance test shall be conducted within 15 days of operation of the E.U. outside the design criteria of the AQCS (air quality control system). The special compliance test shall be conducted to document compliance with the emission limitations and to establish a normal range of operation. **[Rule 62-297.310(7)(b), F.A.C.]**

C.16 Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. **[Rule 62-297.310(7)(c), F.A.C.]**

C.17 Compliance Test Notification: The permittee shall notify the Compliance Authority fifteen (15) days prior to Emission Unit (E.U.) testing. **[Rule 62-297.310(7)(a)(9), F.A.C.]**

C.18 Compliance Test Submittal: Copies of the test report(s) shall be submitted to the Permitting Authority and the Compliance Authority within forty-five (45) days of completion of testing. **[Rule 62-297.310(8)(b), F.A.C.]**

C.19 Test Reports: The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information: **[Rule 62-297.310(8)(c), F.A.C.]**

(a) The type, location, and designation of the emissions unit tested.
(b) The facility at which the emissions unit is located.

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(c) The owner or operator of the emissions unit.
(d) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
(e) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission-limiting standard.
(f) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
(g) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
(h) The date, starting time, and duration of each sampling run.
(i) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
(j) The number of points sampled and configuration and location of the sampling plane.
(k) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
(l) The type, manufacturer, and configuration of the sampling equipment used.
(m) Data related to the required calibration of the test equipment.
(n) Data on the identification, processing, and weights of all filters used.
(o) Data on the types and amounts of any chemical solutions used.
(p) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
(q) The names of individuals, who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
(r) All measured and calculated data required to be determined by each applicable test procedure for each run.
(s) The detailed calculations for one run that relate the collected data to the calculated emission rate.
(t) The applicable emission standard, the resulting maximum allowable emission rate for the emissions unit, plus the test results in the same form and unit of measure.
(u) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

C.20 Recordkeeping: The permittee shall ensure that all records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses. **[Rule 62-213.440(1)(b)2.a., F.A.C.]**

C.21 Record Retention: The permittee shall retain records of all monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. **[Rule 62-213.440(1)(b)2.b., F.A.C.]**

C.22 Alternate Sampling Procedure: The owner or operator of any emissions unit subject to the provisions of this chapter may request in writing a determination by the Secretary or his/her designee that any requirement of this chapter (except for any continuous monitoring requirements) relating to emissions test procedures, methodology,

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equipment, or test facilities shall not apply to such emissions unit and shall request approval of an alternate procedures or requirements. The request shall set forth the following information, at a minimum:

(a) Specific emissions unit and permit number, if any, for which exception is requested.
(b) The specific provision(s) of this chapter from which an exception is sought.
(c) The basis for the exception, including but not limited to any hardship which would result from compliance with the provisions of this chapter.
(d) The alternate procedure(s) or requirement(s) for which approval is sought and a demonstration that such alternate procedure(s) or requirement(s) shall be adequate to demonstrate compliance with applicable emission limiting standards contained in the rules of the Department or any permit issued pursuant to those rules.

The Secretary or his/her designee shall specify by order each alternate procedure or requirement approved for an individual emissions unit source in accordance with this section or shall issue an order denying the request for such approval. The Department's order shall be final agency action, reviewable in accordance with Section 120.57, Florida Statutes. **[Rule 62-297.620, F.A.C.]**

APPENDIX H

**Permit History (for tracking purposes):**

| Description | Permit No. | Issue Date | Expiration Date | Extended |
|---|---|---|---|---|
| Manufacture Area | AO50-193241 | 05-24-91 | 04-01-96 | 08-16-96 |
| Test Area | AO50-193242 | 05-24-91 | 04-01-96 | 08-16-96 |
| Boiler (BO-14-E8) | 0990021-001-AC | 04-03-96 | 04-03-97 | N/A |
| Modification to correct outdated permit conditions for Title V | 0990021-003-AC | 10-28-98 | 12-31-98 | N/A |
| Initial Title V Permit | 0990021-002-AV | 01-06-99 | 01-05-04 | N/A |
| LOx/ Kerosene Rocket Engine Test Stand | 0990021-004-AC | 09-05-01 | 06-30-03 | 09-30-04 |
| Combustion Turbine Test Stand And Vertrel Degreaser | 0990021-005-AC | 12-04-01 | 12-02-03 | N/A |
| Title V permit renewal | 0990021-006-AV | 07/16/04 | 07/15/09 | |
| Facility | 0990021-007-AC | Withdrawn | | |
| JP8 fired gas turbines | 0990021-008-AC | 05/01/06 | 04/30/07 | 04/22/08; 10/08/08 |
| Extension of 008-AC | 0990021-009-AC | 04/22/08 | 10/31/08 | |
| E-8 Rocket engine stand | 0990021-010-AC | 10/13/08 | 10/12/09 | 10/12/09; 04/09/10 |
| Extension of 009-AC | 0990021-011-AC | 10/08/08 | 01/31/09 | |
| Modification of JP8 fired gas turbines | 0990021-012-AC | 11/17/08 | 05/16/09 | 05/26/09; 11/06/09 |
| Extension of 012-AC | 0990021-016-AC | 05/26/09 | 11/16/09 | |
| Extension of 010-AC | 0990021-018-AC | 10/12/09 | 04/12/10 | |
| Extension of 016-AC | 0990021-019-AC | 11/06/09 | 11/16/10 | |
| Extension of 018-AC | 0990021-021-AC | 04/09/10 | 10/12/10 | |

# APPENDIX TV-6
# TITLE V CONDITIONS

[Note: This attachment includes "canned conditions" developed from the "Title V Core List."]

**Chapter 62-4, F.A.C.**

1. **Not federally enforceable.** General Prohibition. Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate and valid permits issued by the Department, unless the source is exempted by Department rule. The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the provisions of Chapter 403, F.S., or the rules promulgated there under. A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit.
[Rule 62-4.030, Florida Administrative Code (F.A.C.); and, Section 403.087, Florida Statute (F.S.)]

2. **Not federally enforceable.** Procedures to Obtain Permits and Other Authorizations; Applications.
(1) Any person desiring to obtain a permit from the Department shall apply on forms prescribed by the Department and shall submit such additional information as the Department by law may require.
(2) All applications and supporting documents shall be filed in quadruplicate with the Department.
(3) To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. All applications for a Department permit shall be certified by a professional engineer registered in the State of Florida except, when the application is for renewal of an air pollution operation permit at a non-Title V source as defined in Rule 62-210.200, F.A.C., or where professional engineering is not required by Chapter 471, F.S. Where required by Chapter 471 or 492, F.S., applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.
(4) Processing fees for air construction permits shall be in accordance with Rule 62-4.050(4), F.A.C.
(5)(a) To be considered by the Department, each application must be accompanied by the proper processing fee. The fee shall be paid by check, payable to the Department of Environmental Protection. The fee is non-refundable except as provided in Section 120.60, F.S., and in this section.
(b) When an application is received without the required fee, the Department shall acknowledge receipt of the application and shall immediately notify the applicant by certified mail that the required fee was not received and advise the applicant of the correct fee. The Department shall take no further action until the correct fee is received. If a fee was received by the Department which is less than the amount required, the Department shall return the fee along with the written notification.
(c) Upon receipt of the proper application fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin.
(d) If the applicant does not submit the required fee within ten days of receipt of written notification, the Department shall either return the unprocessed application or arrange with the applicant for the pick up of the application.
(e) If an applicant submits an application fee in excess of the required fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin upon receipt, and the Department shall refund to the applicant the amount received in excess of the required fee.
(6) Any substantial modification to a complete application shall require an additional processing fee determined pursuant to the schedule set forth in Rule 62-4.050, F.A.C., and shall restart the time requirements of Sections 120.60 and 403.0876, F.S. For purposes of this subsection, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review.
(7) Modifications to existing permits proposed by the permittee which require substantial changes in the existing permit or require substantial evaluation by the Department of potential impacts of the proposed modifications shall require the same fee as a new application for the same time duration except for modification under Chapter 62-45, F.A.C.
[Rule 62-4.050, F.A.C.]

3. Standards for Issuing or Denying Permits. Except as provided at Rule 62-213.460, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules.
[Rule 62-4.070(7), F.A.C.]

4. Modification of Permit Conditions.

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**TITLE V CONDITIONS**

(1) For good cause and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions and on application of the permittee the Department may grant additional time. For the purpose of this section, good cause shall include, but not be limited to, any of the following: (**also, see Condition No. 38.**)

(a) A showing that an improvement in effluent or emission quality or quantity can be accomplished because of technological advances without unreasonable hardship.

(b) A showing that a higher degree of treatment is necessary to effect the intent and purpose of Chapter 403, F.S.

(c) A showing of any change in the environment or surrounding conditions that requires a modification to conform to applicable air or water quality standards.

(e) Adoption or revision of Florida Statutes, rules, or standards which require the modification of a permit condition for compliance.

(2) A permittee may request a modification of a permit by applying to the Department.

(3) A permittee may request that a permit be extended as a modification of the permit. Such a request must be submitted to the Department in writing before the expiration of the permit. Upon timely submittal of a request for extension, unless the permit automatically expires by statute or rule, the permit will remain in effect until final agency action is taken on the request. For construction permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that, upon completion, the extended permit will comply with the standards and conditions required by applicable regulation. For all other permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that the extended permit will comply with the standards and conditions applicable to the original permit. A permit for which the permit application fee was prorated in accordance with Rule 62-4.050(4)(v), F.A.C., shall not be extended. In no event shall a permit be extended or remain in effect longer than the time limits established by statute or rule.
[Rule 62-4.080, F.A.C.]

5. Renewals. Prior to 180 days before the expiration of a permit issued pursuant to Chapter 62-213, F.A.C., the permittee shall apply for a renewal of a permit using forms incorporated by reference in the specific rule chapter for that kind of permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 180 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department or, if there is court review of the Department's final agency action, until a later date is required by Section 120.60, F.S., provided that, for renewal of a permit issued pursuant to Chapter 62-213, F.A.C., the applicant complies with the requirements of Rules 62-213.420(1)(b)3. and 4., F.A.C.
[Rule 62-4.090, F.A.C.]

6. Suspension and Revocation.

(1) Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.

(2) Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.

(3) A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:

(a) Submitted false or inaccurate information in his application or operational reports.

(b) Has violated law, Department orders, rules or permit conditions.

(c) Has failed to submit operational reports or other information required by Department rules.

(d) Has refused lawful inspection under Section 403.091, F.S.

(4) No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(7), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.
[Rule 62-4.100, F.A.C.]

7. **Not federally enforceable.** Financial Responsibility. The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules.
[Rule 62-4.110, F.A.C.]

**APPENDIX TV-6**
**TITLE V CONDITIONS**

8. Transfer of Permits.
(1) Within 30 days after the sale or legal transfer of a permitted facility, an "Application for Transfer of Permit" (DEP Form 62-1.201(1)) must be submitted to the Department. This form must be completed with the notarized signatures of both the permittee and the proposed new permittee. For air permits, an "Application for Transfer of Air Permit" (DEP Form 62-210.900(7)) shall be submitted.
(2) The Department shall approve the transfer of a permit unless it determines that the proposed new permittee cannot provide reasonable assurances that conditions of the permit will be met. The determination shall be limited solely to the ability of the new permittee to comply with the conditions of the existing permit, and it shall not concern the adequacy of these permit conditions. If the Department proposes to deny the transfer, it shall provide both the permittee and the proposed new permittee a written objection to such transfer together with notice of a right to request a Chapter 120, F.S., proceeding on such determination.
(3) Within 30 days of receiving a properly completed Application for Transfer of Permit form, the Department shall issue a final determination. The Department may toll the time for making a determination on the transfer by notifying both the permittee and the proposed new permittee that additional information is required to review adequately the transfer request. Such notification shall be served within 30 days of receipt of an Application for Transfer of Permit form, completed pursuant to Rule 62-4.120(1), F.A.C. If the Department fails to take action to approve or deny the transfer within 30 days of receipt of the completed Application for Transfer of Permit form, or within 30 days of receipt of the last item of timely requested additional information, the transfer shall be deemed approved.
(4) The permittee is encouraged to apply for a permit transfer prior to the sale or legal transfer of a permitted facility. However, the transfer shall not be effective prior to the sale or legal transfer.
(5) Until this transfer is approved by the Department, the permittee and any other person constructing, operating, or maintaining the permitted facility shall be liable for compliance with the terms of the permit. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility.
[Rule 62-4.120, F.A.C.]

9. 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 immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. (**also, see Condition No. 10.**)
[Rule 62-4.130, F.A.C.]

10. For purposes of notification to the Department pursuant to Condition No. 9., Condition No. 12.(8), and Rule 62-4.130, F.A.C., Plant Operation-Problems, “immediately” shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of 40 CFR 70.6(a)(3)(iii)(B), "prompt" shall have the same meaning as "immediately". [**also, see Conditions Nos. 9. and 12.(8).**]
[40 CFR 70.6(a)(3)(iii)(B)]

11. **Not federally enforceable.** Review. Failure to request a hearing within 14 days of receipt of notice of proposed or final agency action on a permit application or as otherwise required in Chapter 62-103, F.A.C., shall be deemed a waiver of the right to an administrative hearing.
[Rule 62-4.150, F.A.C.]

12. Permit Conditions. All permits issued by the Department shall include the following general conditions:
(1) The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
(2) This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
(3) As provided in Subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal

rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
(4) This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
(5) This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
(6) The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
(7) The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.

(8) If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information: (also, see Condition No. 10.)

(a) A description of and cause of noncompliance; and
(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

(9) In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
(10) The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
(11) This permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
(12) This permit or a copy thereof shall be kept at the work site of the permitted activity.
(14) The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used;

6. The results of such analyses.

(15) When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
[Rules 62-4.160 and 62-213.440(1)(b), F.A.C.]

13. Construction Permits.
(1) No person shall construct any installation or facility which will reasonably be expected to be a source of air ~~or water~~ pollution without first applying for and receiving a construction permit from the Department unless exempted by statute or Department rule. In addition to the requirements of Chapter 62-4, F.A.C., applicants for a Department Construction Permit shall submit the following as applicable:

(a) A completed application on forms furnished by the Department.
(b) An engineering report covering:
1. Plant description and operations,
2. Types and quantities of all waste material to be generated whether liquid, gaseous or solid,
3. Proposed waste control facilities,
4. The treatment objectives,
5. The design criteria on which the control facilities are based, and
6. Other information deemed relevant.

Design criteria submitted pursuant to Rule 62-4.210(1)(b)5., F.A.C., shall be based on the results of laboratory and pilot-plant scale studies whenever such studies are warranted. The design efficiencies of the proposed waste treatment facilities and the quantities and types of pollutants in the treated effluents or emissions shall be indicated. Work of this nature shall be subject to the requirements of Chapter 471, F.S. Where confidential records are involved, certain information may be kept confidential pursuant to Section 403.111, F.S.

(c) The owners' written guarantee to meet the design criteria as accepted by the Department and to abide by Chapter 403, F.S., and the rules of the Department as to the quantities and types of materials to be discharged from the installation. The owner may be required to post an appropriate bond or other equivalent evidence of financial responsibility to guarantee compliance with such conditions in instances where the owner's financial resources are inadequate or proposed control facilities are experimental in nature.

(2) The construction permit may contain conditions and an expiration date as determined by the Secretary or the Secretary's designee.
(3) When the Department issues a permit to construct, the permittee shall be allowed a period of time, specified in the permit, to construct, and to operate and test to determine compliance with Chapter 403, F.S., and the rules of the Department and, where applicable, to apply for and receive an operation permit. The Department may require tests and evaluations of the treatment facilities by the permittee at his/her expense.
[Rule 62-4.210, F.A.C.]

14. **Not federally enforceable.** Operation Permit for New Sources. To apply properly for an operation permit for new sources the applicant shall submit the appropriate fee and certification that construction was completed, noting any deviations from the conditions in the construction permit and test results where appropriate.
[Rule 62-4.220, F.A.C.]

Chapters 28-106 and 62-110, F.A.C.

15. Public Notice, Public Participation, and Proposed Agency Action. The permittee shall comply with all of the requirements for public notice, public participation, and proposed agency action pursuant to Rules 62-110.106 and 62-210.350, F.A.C.
[Rules 62-110.106, 62-210.350 and 62-213.430(1)(b), F.A.C.]

16. Administrative Hearing. The permittee shall comply with all of the requirements for a petition for administrative hearing or waiver of right to administrative proceeding pursuant to Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.
[Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.]
Chapter 62-204, F.A.C.

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17. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source.
[40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]
Chapter 62-210, F.A.C.

18. Permits Required. Unless exempted from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., or unless specifically authorized by provision of Rule 62-210.300(4), F.A.C., or Rule 62-213.300, F.A.C., the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain an appropriate permit from the Department prior to beginning construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, modification, or the addition of pollution control equipment; or to authorize initial or continued operation of the emissions unit; or to establish a PAL or Air Emissions Bubble. All emissions limitations, controls, and other requirements imposed by such permits shall be at least as stringent as any applicable limitations and requirements contained in or enforceable under the State Implementation Plan (SIP) or that are otherwise federally enforceable. Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law.
(1) Air Construction Permits.
(a) Unless exempt from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., an air construction permit shall be obtained by the owner or operator of any proposed new, reconstructed, or modified facility or emissions unit, or any new pollution control equipment prior to the beginning of construction, reconstruction pursuant to 40 CFR 60,15 or 63.2, or modification of the facility or emissions unit or addition of the pollution control equipment; or to establish a PAL; in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C. Except as provided under Rule 62-213.415, F.A.C., the owner or operator of any facility seeking to create or change an air emissions bubble shall obtain an air construction permit in accordance with all the applicable provisions of Chapter 62-210, F.A.C., Chapters 62-212 and 62-4, F.A.C. The construction permit shall be issued for a period of time sufficient to allow construction, reconstruction or modification of the facility or emissions unit or addition of the air pollution control equipment; and operation while the owner or operator of the new, reconstructed or modified facility or emissions unit or the new pollution control equipment is conducting tests or otherwise demonstrating initial compliance with the conditions of the construction permit.
(b) Notwithstanding the expiration of an air construction permit, all limitations and requirements of such permit that are applicable to the design and operation of the permitted facility or emissions unit shall remain in effect until the facility or emissions unit is permanently shut down, except for any such limitation or requirement that is obsolete by its nature (such as a requirement for initial compliance testing) or any such limitation or requirement that is changed in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C. Either the applicant or the Department can propose that certain conditions be considered obsolete. Any conditions or language in an air construction permit that are included for informational purposes only, if they are transferred to the air operation permit, shall be transferred for informational purposes only and shall not become enforceable conditions unless voluntarily agreed to by the permittee or otherwise required under Department rules.
1. Except for those limitations or requirements that are obsolete, all limitations and requirements of an air construction permit shall be included and identified in any air operation permit for the facility or emissions unit. The limitations and requirements included in the air operation permit can be changed, and thereby superseded, through the issuance of an air construction permit, federally enforceable state air operation permit, federally enforceable air general permit, or Title V air operation permit; provided, however, that:
a. Any change that would constitute an administrative correction may be made pursuant to Rule 62-210.360, F.A.C.;
b. Any change that would constitute a modification, as defined at Rule 62-210.200, F.A.C., shall be accomplished only through the issuance of an air construction permit; and
c. Any change in a permit limitation or requirement that originates from a permit issued pursuant to 40 CFR 52.21, Rule 62-204.800(11)(d)2., F.A.C., Rule 62-212.400, F.A.C., Rule 62-212.500, F.A.C., or any former codification of Rule 62-212.400 or Rule 62-212.500, F.A.C., shall be accomplished only through the issuance of a

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new or revised air construction permit under Rule 62-204.800(11)(d)2., Rule 62-212.400 or Rule 62-212.500, F.A.C., as appropriate.

2. The force and effect of any change in a permit limitation or requirement made in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C., shall be the same as if such change were made to the original air construction permit.

3. Nothing in Rule 62-210.300(1)(b), F.A.C., shall be construed as to allow operation of a facility or emissions unit without a valid air operation permit.

(2) Air Operation Permits. Upon expiration of the air operation permit for any existing facility or emissions unit, subsequent to construction or modification, or subsequent to the creation of or change to a bubble, and demonstration of compliance with the conditions of the construction permit for any new or modified facility or emissions unit, any air emissions bubble, or as otherwise provided in Chapter 62-210, F.A.C., or Chapter 62-213, F.A.C., the owner or operator of such facility or emissions unit shall obtain a renewal air operation permit, an initial air operation permit or air general permit, or an administrative correction or revision of an existing air operation permit, whichever is appropriate, in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-213, F.A.C., and Chapter 62-4, F.A.C.

(a) Minimum Requirements for All Air Operation Permits. At a minimum, a permit issued pursuant to this subsection shall:

1. Specify the manner, nature, volume and frequency of the emissions permitted, and the applicable emission limiting standards or performance standards, if any;

2. Require proper operation and maintenance of any pollution control equipment by qualified personnel, where applicable in accordance with the provisions of any operation and maintenance plan required by the air pollution rules of the Department.

3. Contain an effective date stated in the permit which shall not be earlier than the date final action is taken on the application and be issued for a period, beginning on the effective date, as provided below.

a. The operation permit for an emissions unit which is in compliance with all applicable rules and in operational condition, and which the owner or operator intends to continue operating, shall be issued or renewed for a five-year period, except that, for Title V sources subject to Rule 62-213.420(1)(a)1., F.A.C., operation permits shall be extended until 60 days after the due date for submittal of the facility's Title V permit application as specified in Rule 62-213.420(1)(a)1., F.A.C.

b. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for six months or more prior to the expiration date of the current operation permit, shall be renewed for a period not to exceed five years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided:

(i) the owner or operator of the emissions unit demonstrates to the Department that the emissions unit may need to be reactivated and used, or that it is the owner's or operator's intent to apply to the Department for a permit to construct a new emissions unit at the facility before the end of the extension period; and

(ii) the owner or operator of the emissions unit agrees to and is legally prohibited from providing the allowable emission permitted by the renewed permit as an emissions offset to any other person under Rule 62-212.500, F.A.C.; and

(iii) the emissions unit was operating in compliance with all applicable rules as of the time the source was shut down.

c. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided the conditions given in Rule 62-210.300(2)(a)3.b., F.A.C., are met and the owner or operator demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.

d. The operation permit for an electric utility generating unit on cold standby or long-term reserve shutdown shall be renewed for a five-year period, and additional five-year periods, even if the unit is not maintained in operational condition, provided the conditions given in Rules 62-210.300(2)(a)3.b.(i) through (iii), F.A.C., are met.

4. In the case of an emissions unit permitted pursuant to Rules 62-210.300(2)(a)3.b., c., and d., F.A.C., include reasonable notification and compliance testing requirements for reactivation of such emissions unit and provide that the owner or operator demonstrate to the Department prior to reactivation that such reactivation would not constitute reconstruction pursuant to Rule 62-204.800(8), F.A.C.

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[Rules 62-210.300(1) & (2), F.A.C.]
19. **Not federally enforceable.** Notification of Startup. The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.

(a) The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.

(b) If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]
20. Emissions Unit Reclassification.
(a) Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
(b) If the owner or operator of an emissions unit, which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.
[Rule 62-210.300(6), F.A.C.]

21. Transfer of Air Permits.
***(a) An air permit is transferable only after submission of an Application for Transfer of Air Permit (DEP Form 62-210.900(7)) and Department approval in accordance with Rule 62-4.120, F.A.C. For Title V permit transfers only, a complete application for transfer of air permit shall include the requirements of 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C. Within 30 days after approval of the transfer of permit, the Department shall update the permit by an administrative permit correction pursuant to Rule 62-210.360, F.A.C.***
(b) For an air general permit, the provision of Rules 62-210.300(7)(a) and 62-4.120, F.A.C., do not apply. Thirty (30) days before using an air general permit, the new owner must submit an air general permit notification to the Department in accordance with Rule 62-210.300(4), F.A.C., or Rule 62-213.300(2)(b), F.A.C.
[Rule 62-210.300(7), F.A.C.]

22. Public Notice and Comment.
(1) Public Notice of Proposed Agency Action.

(a) A notice of proposed agency action on permit application, where the proposed agency action is to issue the permit, shall be published by any applicant for:

1. An air construction permit;
2. An air operation permit, permit renewal or permit revision subject to Rule 62-210.300(2)(b), F.A.C., (i.e., a FESOP), except as provided in Rule 62-210.300(2)(b)1.b., F.A.C.; or
3. An air operation permit, permit renewal, or permit revision subject to Chapter 62-213, F.A.C., except Title V air general permits or those permit revisions meeting the requirements of Rule 62-213.412(1), F.A.C.

(b) The notice required by Rule 62-210.350(1)(a), F.A.C., shall be published in accordance with all otherwise applicable provisions of Rule 62-110.106, F.A.C. A public notice under Rule 62-210.350(1)(a)1., F.A.C., for an air construction permit may be combined with any required public notice under Rule 62-210.350(1)(a)2. or 3., F.A.C., for air operation permits. If such notices are combined, the public notice must comply with the requirements for both notices.

(c) Except as otherwise provided at Rules 62-210.350(2), (5), and (6), F.A.C., each notice of intent to issue an air construction permit shall provide a 14-day period for submittal of public comments.

(2) Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment - Area Preconstruction Review.

(a) Before taking final agency action on a construction permit application for any proposed new or modified facility or emissions unit subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C., the

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Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:

1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S., and the Department's analysis of the effect of the proposed construction or modification on ambient air quality, including the Department's preliminary determination of whether the permit should be approved or disapproved;
2. A 30-day period for submittal of public comments; and
3. A notice, by advertisement in a newspaper of general circulation in the county affected, specifying the nature and location of the proposed facility or emissions unit, whether BACT or LAER has been determined, the degree of PSD increment consumption expected, if applicable, and the location of the information specified in paragraph 1. above; and notifying the public of the opportunity for submitting comments and requesting a public hearing.

(b) The notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action.

(c) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall also be sent by the Department to the Regional Office of the U. S. Environmental Protection Agency and to all other state and local officials or agencies having cognizance over the location of such new or modified facility or emissions unit, including local air pollution control agencies, chief executives of city or county government, regional land use planning agencies, and any other state, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the new or modified facility or emissions unit.

(d) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be displayed in the appropriate district, branch and local program offices.

(e) An opportunity for public hearing shall be provided in accordance with Chapter 120, F.S., and Rule 62-110.106, F.A.C.

(f) Any public comments received shall be made available for public inspection in the location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., is available and shall be considered by the Department in making a final determination to approve or deny the permit.

(g) The final determination shall be made available for public inspection at the same location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., was made available.

(h) For a proposed new or modified emissions unit which would be located within 100 kilometers of any Federal Class I area or whose emissions may affect any Federal Class I area, and which would be subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C.:

1. The Department shall mail or transmit to the Administrator a copy of the initial application for an air construction permit and notice of every action related to the consideration of the permit application.
2. The Department shall mail or transmit to the Federal Land Manager of each affected Class I area a copy of any written notice of intent to apply for an air construction permit; the initial application for an air construction permit, including all required analyses and demonstrations; any subsequently submitted information related to the application; the preliminary determination and notice of proposed agency action on the permit application; and any petition for an administrative hearing regarding the application or the Department's proposed action. Each such document shall be mailed or transmitted to the Federal Land Manager within fourteen (14) days after its receipt by the Department.

(3) Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.

(a) Before taking final agency action to issue a new, renewed, or revised air operation permit subject to Chapter 62-213, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:

1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S.; and
2. A 30-day period for submittal of public comments.

(b) The notice provided for in Rule 62-210.350(3)(a), F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action. If written comments received during the 30-day comment period on a draft permit result in the Department's issuance of a revised draft permit in accordance with Rule 62-213.430(1), F.A.C., the Department shall require the applicant to publish another public notice in accordance with Rule 62-210.350(1)(a), F.A.C.

(c) The notice shall identify:

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1. The facility;
2. The name and address of the office at which processing of the permit occurs;
3. The activity or activities involved in the permit action;
4. The emissions change involved in any permit revision;
5. The name, address, and telephone number of a Department representative from whom interested persons may obtain additional information, including copies of the permit draft, the application, and all relevant supporting materials, including any permit application, compliance plan, permit, monitoring report, and compliance statement required pursuant to Chapter 62-213, F.A.C. (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), and all other materials available to the Department that are relevant to the permit decision;
6. A brief description of the comment procedures required by Rule 62-210.350(3), F.A.C.;
7. The time and place of any hearing that may be held, including a statement of procedure to request a hearing (unless a hearing has already been scheduled); and
8. The procedures by which persons may petition the Administrator to object to the issuance of the proposed permit after expiration of the Administrator's 45-day review period.

[Rules 62-210.350(1) thru (3), F.A.C.]

23. Administrative Permit Corrections.
(1) A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
(a) Typographical errors noted in the permit;
(b) Name, address or phone number change from that in the permit;
(c) A change requiring more frequent monitoring or reporting by the permittee;
(d) A change in ownership or operational control of a facility, subject to the following provisions:
1. The Department determines that no other change in the permit is necessary;
2. The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
3. The new permittee has notified the Department of the effective date of sale or legal transfer.
(e) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;
(f) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
(g) Any other similar minor administrative change at the source.
(2) Upon receipt of any such notification, the Department shall within 60 days correct the permit and provide a corrected copy to the owner.
(3) After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.
(4) For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.
[Rule 62-210.360, F.A.C.]

24. Emissions Computation and Report~~i~~ng.
(1) Applicability. This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.
(2) Computation of Emissions. For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
(a) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system

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(CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.

1. If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.

2. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

3. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

(b) Continuous Emissions Monitoring System (CEMS).

1. An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:

a. The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or

b. The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.

2. Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:

a. A calibrated flowmeter that records data on a continuous basis, if available; or

b. The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

3. The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.

(c) Mass Balance Calculations.

1. An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:

a. Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and

b. Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.

2. Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.

3. In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

(d) Emission Factors.

1. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.

a. If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period

encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

b. Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.

c. The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.

2. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.

(e) Accounting for Emissions during Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.

(f) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

(g) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.

(h) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

(3) Annual Operating Report for Air Pollutant Emitting Facility.

(a) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year.

(c) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by March 1 of the following year.

(d) Beginning with 2007 annual emissions, emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C., for purposes of the annual operating report.

[Rules 62-210.370(1), (2) and (3)(a), (c) & (d), F.A.C.]

25. Circumvention. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

26. Forms and Instructions. The forms used by the Department in the stationary source control program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, with the subject, title and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by accessing the Division's website at www.dep.state.fl.us/air. ~~T~~The requirement of Rule 62-4.050(2), F.A.C., to file application forms in quadruplicate is waived if an air permit application is submitted using the Department's electronic application form.

(1) Application for Air Permit - Long Form, Form and Instructions (Effective 02-02-2006).

(a) Acid Rain Part, Form and Instructions (Effective 06-16-2003).

1. Repowering Extension Plan, Form and Instructions (Effective 07/01/1995).
2. New Unit Exemption, Form and Instructions (Effective 04/16/2001).
3. Retired Unit Exemption, Form and Instructions (Effective 04/16/2001).
4. Phase II NOx Compliance Plan, Form and Instructions (Effective 01/06/1998).
5. Phase II NOx Averaging Plan, Form (Effective 01/06/1998).

(b) Reserved.

(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions (Effective 02/11/1999).

(7) Application for Transfer of Air Permit – Title V Source, (Effective 04/16/2001).

[Rule 62-210.900, F.A.C.]

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Chapter 62-213, F.A.C.

27. Responsible Official.
(1) Each Title V source must identify a responsible official on each application for Title V permit, permit revision, and permit renewal. For sources with only one responsible official, this is how the Title V source designates the responsible official.
(2) Each Title V source may designate more than one responsible official, provided a primary responsible official is designated as responsible for the certifications of all other designated responsible officials. Any action taken by the primary responsible official shall take precedence over any action taken by any other designated responsible official.
(3) Any facility initially designating more than one responsible official or changing the list of responsible officials must submit a Responsible Official Notification Form (DEP Form No. 62-213.900(8)) designating all responsible officials for a Title V source, stating which responsible official is the primary responsible official, and providing an effective date for any changes to the list of responsible officials. Each individual listed on the Responsible Official Notification Form must meet the definition of responsible official given at Rule 62-210.200, F.A.C.
(4) A Title V source with only one responsible official shall submit DEP Form No. 62-213.900(8) for a change in responsible official.
(5) No person shall take any action as a responsible official at a Title V source unless designated a responsible official as required by this rule, except that the existing responsible official of any Title V source which has a change in responsible official during the term of the permit and before the effective date of this rule may continue to act as a responsible official until the first submittal of DEP Form No. 62-213.900(8) or the next application for Title V permit, permit revision or permit renewal, whichever comes first.
[Rules 62-213.202(1) thru (5), F.A.C.]

28. Annual Emissions Fee. Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, upon written notice from the Department, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.
(1)(g) If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to $50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
(1)(i) Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
(1)(j) A completed DEP Form 62-213.900(1), “Major Air Pollution Source Annual Emissions Fee Form”, must be submitted by a responsible official with the annual emissions fee.
[Rules 62-213.205, (1)(g), (1)(i) & (1)(j), F.A.C.]

29. Reserved.

30. Reserved.
31. Air Operation Permit Fees. No permit application processing fee, renewal fee, modification fee or amendment fee is required for an operation permit for a Title V source.
[Rule 62-213.205(4), F.A.C.]

32. Permits and Permit Revisions Required. All Title V sources are subject to the permit requirements of Chapter 62-213, F.A.C., except those Title V sources permittable pursuant to Rule 62-213.300, F.A.C., Title V Air General Permits.
(1) No Title V source may operate except in compliance with Chapter 62-213, F.A.C.

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(2) Except as provided in Rule 62-213.410, F.A.C., no source with a permit issued under the provisions of Chapter 62-213, F.A.C., shall make any changes in its operation without first applying for and receiving a permit revision if the change meets any of the following:

(a) Constitutes a modification;
(b) Violates any applicable requirement;
(c) Exceeds the allowable emissions of any air pollutant from any unit within the source;
(d) Contravenes any permit term or condition for monitoring, testing, recordkeeping, reporting or of a compliance certification requirement;
(e) Requires a case-by-case determination of an emission limitation or other standard or a source specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, F.A.C.;
(f) Violates a permit term or condition which the source has assumed for which there is no corresponding underlying applicable requirement to which the source would otherwise be subject;
(g) Results in the trading of emissions among units within a source except as specifically authorized pursuant to Rule 62-213.415, F.A.C.;
(h) Results in the change of location of any relocatable facility identified as a Title V source pursuant to paragraph (a)-(e), (g) or (h) of the definition of "major source of air pollution" at Rule 62-210.200, F.A.C.;
(i) Constitutes a change at an Acid Rain Source under the provisions of 40 CFR 72.81(a)(1), (2), or (3), (b)(1) or (b)(3), hereby incorporated by reference;
(j) Constitutes a change in a repowering plan, nitrogen oxides averaging plan, or nitrogen oxides compliance deadline extension at an Acid Rain Source;

[Rules 62-213.400(1) & (2), F.A.C.]

33. Changes Without Permit Revision. Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:

(1) Permitted sources may change among those alternative methods of operation;
(2) A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
(a) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
(b) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
(3) Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.

[Rule 62-213.410, F.A.C.]

34. Immediate Implementation Pending Revision Process.

(1) Those permitted Title V sources making any change that constitutes a modification pursuant to the definition of modification at Rule 62-210.200, F.A.C., but which would not constitute a modification pursuant to 42 USC 7412(a) or to 40 CFR 52.01, 60.2, or 61.15, adopted and incorporated by reference at Rule 62-204.800, F.A.C., may implement such change prior to final issuance of a permit revision, provided the change:
(a) Does not violate any applicable requirement;
(b) Does not contravene any permit term or condition for monitoring, testing, recordkeeping or reporting, or any compliance certification requirement;
(c) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, F.A.C.;
(d) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and which the source has assumed to avoid an applicable requirement to which the source would otherwise be subject including any federally enforceable emissions cap or federally enforceable alternative emissions limit.
(2) A Title V source may immediately implement such changes after they have been incorporated into the terms and conditions of a new or revised construction permit issued pursuant to Chapter 62-212, F.A.C., and after the source provides to EPA, the Department, each affected state and any approved local air program having geographic jurisdiction over the

source, a copy of the source's application for operation permit revision. The Title V source may conform its application for construction permit to include all information required by Rule 62-213.420, F.A.C., in lieu of submitting separate application forms.
(3) The Department shall process the application for operation permit revision in accordance with the provisions of Chapter 62-213, F.A.C., except that the Department shall issue a draft permit revision or a determination to deny the revision within 60 days of receipt of a complete application for operation permit revision or, if the Title V source has submitted a construction permit application conforming to the requirements of Rule 62-213.420, F.A.C., the Department shall issue a draft permit or a determination to deny the revision at the same time the Department issues its determination on issuance or denial of the construction permit application. The Department shall not take final action on the operation permit revision application until all the requirements of Rules 62-213.430(1)(a), (c), (d), and (e), F.A.C., have been complied with.
(4) Pending final action on the operation permit revision application, the source shall implement the changes in accordance with the terms and conditions of the source's new or revised construction permit. If any terms and conditions of the new or revised construction permit have not been complied with prior to the issuance of the draft operation permit revision, the operation permit shall include a compliance plan in accordance with the provisions of Rule 62-213.440(2), F.A.C.
(5) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes until after the Department takes final action to issue the operation permit revision.
(6) If the Department denies the source's application for operation permit revision, the source shall cease implementation of the proposed changes.
[Rule 62-213.412, F.A.C.]

35. Permit Applications.
(1) Duty to Apply. For each Title V source, the owner or operator shall submit a timely and complete permit application in compliance with the requirements of Rules 62-213.420, F.A.C., and Rules 62-4.050(1) through (3), F.A.C.

(a) Timely Application.

3. For purposes of permit renewal, a timely application is one that is submitted in accordance with Rule 62-4.090, F.A.C.

(b) Complete Application.

1. Any applicant for a Title V permit, permit revision or permit renewal must submit an application on DEP Form No. 62-210.900(1), which must include all the information specified by Rule 62-213.420(3), F.A.C., except that an application for permit revision must contain only that information related to the proposed change(s) from the currently effective Title V permit and any other requirements that become applicable at the time of application. The applicant shall include information concerning fugitive emissions and stack emissions in the application. Each application for permit, permit revision or permit renewal shall be certified by a responsible official in accordance with Rule 62-213.420(4), F.A.C.

2. For those applicants submitting initial permit applications pursuant to Rule 62-213.420(1)(a)1., F.A.C., a complete application shall be an application that substantially addresses all the information required by the application form number 62-210.900(1), and such applications shall be deemed complete within sixty days of receipt of a signed and certified application unless the Department notifies the applicant of incompleteness within that time. For all other applicants, the applications shall be deemed complete sixty days after receipt, unless the Department, within sixty days after receipt of a signed application for permit, permit revision or permit renewal, requests additional documentation or information needed to process the application. An applicant making timely and complete application for permit, or timely application for permit renewal as described by Rule 62-4.090(1), F.A.C., shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of Rules 62-213.420(1)(b)3. and 4., F.A.C. Failure of the Department to request additional information within sixty days of receipt of a properly signed application shall not impair the Department's ability to request additional information pursuant to Rules 62-213.420(1)(b)3. and 4., F.A.C.

3. For those permit applications submitted pursuant to the provisions of Rule 62-213.420(1)(a)1., F.A.C., the Department shall notify the applicant if the Department becomes aware at any time during processing of the application that the application contains incorrect or incomplete information. The applicant shall submit the corrected or supplementary information to the Department within ninety days unless the applicant has requested and been granted additional time to submit the information. Failure of an applicant to submit corrected or

supplementary information requested by the Department within ninety days or such additional time as requested and granted shall render the application incomplete.

4. For all applications other than those addressed at Rule 62-213.420(1)(b)3., F.A.C., should the Department become aware, during processing of any application that the application contains incorrect information, or should the Department become aware, as a result of comment from an affected State, an approved local air program, EPA, or the public that additional information is needed to evaluate the application, the Department shall notify the applicant within 30 days. When an applicant becomes aware that an application contains incorrect or incomplete information, the applicant shall submit the corrected or supplementary information to the Department. If the Department notifies an applicant that corrected or supplementary information is necessary to process the permit, and requests a response, the applicant shall provide the information to the Department within ninety days of the Department request unless the applicant has requested and been granted additional time to submit the information or, the applicant shall, within ninety days, submit a written request that the Department process the application without the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days, or such additional time as requested and granted, or to demand in writing within ninety days that the application be processed without the information shall render the application incomplete. Nothing in this section shall limit any other remedies available to the Department.

[Rules 62-213.420(1)(a)3. and 62-213.420(1)(b)1., 2., 3. & 4., F.A.C.]

36. Confidential Information. Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. (**also, see Condition No. 50.**)
[Rule 62-213.420(2), F.A.C.]

37. Standard Application Form and Required Information. Applications shall be submitted under Chapter 62-213, F.A.C., on forms provided by the Department and adopted by reference in Rule 62-210.900(1), F.A.C. The information as described in Rule 62-210.900(1), F.A.C., shall be included for the Title V source and each emissions unit. An application must include information sufficient to determine all applicable requirements for the Title V source and each emissions unit and to evaluate a fee amount pursuant to Rule 62-213.205, F.A.C.
[Rule 62-213.420(3), F.A.C.]

38. a. Permit Renewal and Expiration. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) and 62-213.420(3), F.A.C. Unless a Title V source submits a timely application for permit renewal in accordance with the requirements of Rule 62-4.090(1), F.A.C., the existing permit shall expire and the source's right to operate shall terminate. No Title V permit will be issued for a new term except through the renewal process.
b. Permit Revision Procedures. Permit revisions shall meet all requirements of Chapter 62-213, F.A.C., including those for content of applications, public participation, review by approved local programs and affected states, and review by EPA, as they apply to permit issuance and permit renewal, except that permit revisions for those activities implemented pursuant to Rule 62-213.412, F.A.C., need not meet the requirements of Rule 62-213.430(1)(b), F.A.C. The Department shall require permit revision in accordance with the provisions of Rule 62-4.080, F.A.C., and 40 CFR 70.7(f), whenever any source becomes subject to any condition listed at 40
CFR 70.7(f)(1), hereby adopted and incorporated by reference. The below requirements from 40 CFR 70.7(f) are adopted and incorporated by reference in Rule 62-213.430(4), F.A.C.:

o 40 CFR 70.7(f): Reopening for Cause. (**also, see Condition No. 4.**)

(1) This section contains provisions from 40 CFR 70.7(f) that specify the conditions under which a Title V permit shall be reopened prior to the expiration of the permit. A Title V permit shall be reopened and revised under any of the following circumstances:

(i) Additional applicable requirements under the Act become applicable to a major Part 70 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii).

(ii) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approved by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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(iii) The permitting authority or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

(iv) The Administrator or the permitting authority determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(2) Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(3) Reopenings under 40 CFR 70.7(f)(1) shall not be initiated before a notice of such intent is provided to the Part 70 source by the permitting authority at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.

[Rules 62-213.430(3) & (4), F.A.C.; and, 40 CFR 70.7(f)]

39. Insignificant Emissions Units or Pollutant-Emitting Activities.

(a) All requests for determination of insignificant emissions units or activities made pursuant to Rule 62-213.420(3)(n), F.A.C., shall be processed in conjunction with the permit, permit renewal or permit revision application submitted pursuant to Chapter 62-213, F.A.C. Insignificant emissions units or activities shall be approved by the Department consistent with the provisions of Rule 62-4.040(1)(b), F.A.C. Emissions units or activities which are added to a Title V source after issuance of a permit under Chapter 62-213, F.A.C., shall be incorporated into the permit at its next renewal, provided such emissions units or activities have been exempted from the requirement to obtain an air construction permit and also qualify as insignificant pursuant to Rule 62-213.430(6), F.A.C.

(b) An emissions unit or activity shall be considered insignificant if all of the following criteria are met:

1. Such unit or activity would be subject to no unit-specific applicable requirement;
2. Such unit or activity, in combination with other units or activities proposed as insignificant, would not cause the facility to exceed any major source threshold(s) as defined in Rule 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s);
3. Such unit or activity would not emit or have the potential to emit:
   a. 500 pounds per year or more of lead and lead compounds expressed as lead;
   b. 1,000 pounds per year or more of any hazardous air pollutant;
   c. 2,500 pounds per year or more of total hazardous air pollutants; or
   d. 5.0 tons per year or more of any other regulated pollutant.

[Rule 62-213.430(6), F.A.C.]

40. Permit Duration. Permits for sources subject to the Federal Acid Rain Program shall be issued for terms of five years, provided that the initial Acid Rain Part may be issued for a term less than five years where necessary to coordinate the term of such part with the term of a Title V permit to be issued to the source. Operation permits for Title V sources may not be extended as provided in Rule 62-4.080(3), F.A.C., if such extension will result in a permit term greater than five years.
[Rule 62-213.440(1)(a), F.A.C.]

41. Monitoring Information. All records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses.
[Rule 62-213.440(1)(b)2.a., F.A.C.]

42. Retention of Records. Retention of records of all monitoring data and support information shall be for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
[Rule 62-213.440(1)(b)2.b., F.A.C.]

43. Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports.
[Rule 62-213.440(1)(b)3.a., F.A.C.]

44. Deviation from Permit Requirements Reports. The permittee shall report in accordance with the requirements of Rules 62-210.700(6) and 62-4.130, F.A.C., deviations from permit requirements, including those attributable to upset conditions as

defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.
[Rule 62-213.440(1)(b)3.b., F.A.C.]

45. Reports. All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C.
[Rule 62-213.440(1)(b)3.c, F.A.C.]

46. If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect.
[Rule 62-213.440(1)(d)1., F.A.C.]

47. It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity.
[Rule 62-213.440(1)(d)3., F.A.C.]

48. Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C.
[Rule 62-213.440(1)(d)4., F.A.C.]

49. A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference.
[Rule 62-213.440(1)(d)5., F.A.C.]

50. Confidentiality Claims. Any permittee may claim confidentiality of any data or other information by complying with Rule 62-213.420(2), F.A.C. (**also, see Condition No. 36.**)
[Rule 62-213.440(1)(d)6., F.A.C.]
51. Statement of Compliance. (a)2. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:

a. Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and

b. Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.

3. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
(b) The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.
[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

52. Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in Rule 62-213.460, F.A.C., or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency,

the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program.
[Rule 62-213.460, F.A.C.]

53. Forms and Instructions. The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The form is listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by contacting the appropriate permitting authority.
(1) Major Air Pollution Source Annual Emissions Fee Form. (Effective 01/03/2001)
(7) Statement of Compliance Form. (Effective 06/02/2002)
(8) Responsible Official Notification Form. (Effective 06/02/2002)
[Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

Chapter 62-256, F.A.C.

54. **Not federally enforceable.** Open Burning. This permit does not authorize any open burning nor does it constitute any waiver of the requirements of Chapter 62-256, F.A.C. Source shall comply with Chapter 62-256, F.A.C., for any open burning at the source.
[Chapter 62-256, F.A.C.]

Chapter 62-281, F.A.C.

55. Refrigerant Requirements. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Rule 62-281.100, F.A.C. Those requirements include the following restrictions:
(1) Any facility having any refrigeration equipment normally containing 50 (fifty) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added pursuant to 40 CFR 82.166;
(2) No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided at 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved pursuant to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
(3) No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or Class II substance at 40 CFR 82, Subpart A, Appendices A and B, except in compliance with Rule 62-281.100, F.A.C., and 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
(4) No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or Class II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined at 40 CFR 82.152) for service, maintenance or repair unless the person has been properly trained and certified pursuant to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance pursuant to 40 CFR 82.158 and unless the person observes the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;
(5) No person may dispose of appliances (except small appliances, as defined at 40 CFR 82.152) without using equipment certified for that type of appliance pursuant to 40 CFR 82.158 and without observing the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;
(6) No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined at 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82, Subpart F.
[40 CFR 82; and, Chapter 62-281, F.A.C. **(Chapter 62-281, F.A.C., is not federally enforceable)]**

Chapter 62-296, F.A.C.

56. Industrial, Commercial, and Municipal Open Burning Prohibited. Open burning in connection with industrial, commercial, or municipal operations is prohibited, except when:

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(a) Open burning is determined by the Department to be the only feasible method of operation and is authorized by an air permit issued pursuant to Chapter 62-210 or 62-213, F.A.C.; or
(b) An emergency exists which requires immediate action to protect human health and safety; or
(c) A county or municipality would use a portable air curtain incinerator to burn yard trash generated by a hurricane, tornado, fire or other disaster and the air curtain incinerator would otherwise be operated in accordance with the permitting exemption criteria of Rule 62-210.300(3), F.A.C.
[Rule 62-296.320(3), F.A.C.]

57. Unconfined Emissions of Particulate Matter.
(4)(c)1. No person shall 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.
3. Reasonable precautions include the following:
a. Paving and maintenance of roads, parking areas and yards.
b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
e. Landscaping or planting of vegetation.
f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
g. Confining abrasive blasting where possible.
h. Enclosure or covering of conveyor systems.
4. 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.
[Rules 62-296.320(4)(c)1., 3., & 4. F.A.C.]

**Appendix ZZZZ**
**Applicable Requirements from 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines**

**63.6585 Am I subject to this subpart?**

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source.

**63.6590 What parts of my plant does this subpart cover?**
(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
(1) *Existing stationary RICE.*
For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

**63.6595 When do I have to comply with this subpart?**

**If you have an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013**

**63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and Table 4 to this subpart.
(a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

**63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

If you own or operate an existing nonemergency CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

**63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

**63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing CI stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions **or an existing stationary CI RICE located at an area source of HAP emissions you** are subject to the requirements of this section.
(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in 40 CFR 63.6595 and according to the provisions in 40 CFR 63.7(a)(2).
(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
(2) The test must not be older than 2 years.
(3) The test must be reviewed and accepted by the Administrator.
(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

**63.6620 What performance tests and other procedures must I use?**

a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart.
d) You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR63.7(e)(3). Each test run must last at least 1 hour.
(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)} \tag{1}$$

Where:
$C_i$= concentration of CO or formaldehyde at the control device inlet,
$C_o$= concentration of CO or formaldehyde at the control device outlet, and
R = percent reduction of CO or formaldehyde emissions.
(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide ($CO_2$). If pollutant concentrations are to be corrected to 15 percent oxygen and $CO_2$concentration is measured in lieu of oxygen concentration measurement, a $CO_2$correction factor is needed. Calculate the $CO_2$correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.
(i) Calculate the fuel-specific $F_o$value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209\, F_d}{F_c} \qquad \text{(Eq. 2)} \tag{1}$$

Where:
$F_o$= Fuel factor based on the ratio of oxygen volume to the ultimate $CO_2$volume produced by the fuel at zero percent excess air.
0.209 = Fraction of air that is oxygen, percent/100.
$F_d$= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).
$F_c$= Ratio of the volume of $CO_2$ produced to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).
(ii) Calculate the $CO_2$ correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)} \tag{1}$$

Where:
$X_{co2}$= $CO_2$correction factor, percent.

5.9 = 20.9 percent $O_2$–15 percent $O_2$, the defined $O_2$correction value, percent
(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
(1) Identification of the specific parameters you propose to use as operating limitations;
(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally ( *e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally ( *e.g.,* wear and tear, error, etc.) on a routine basis or over time;
(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided

**63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(g) If you own or operate an existing non-emergency CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer’s specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) in this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
(h) If you operate a new or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary engine that is subject to the work, operation or management practices in items 1, 2, or 4 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

**63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the engine according to the conditions described in paragraphs (f)(1) through (4) of this section.
1) For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
(2) There is no time limit on the use of emergency stationary RICE in emergency situations.
(3) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.
The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
(4) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are

emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(4), as long as the power provided by the financial arrangement is limited to emergency power.

**63.6645 What notifications must I submit and when?**

(a) You must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
(2) An existing stationary CI RICE located at an area source of HAP emissions.

**63.6650 What reports must I submit and when?**

You must submit each report in Table 7 of this subpart that applies to you.
(b) Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in 40 CFR 63.6595.
(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in 40 CFR 63.6595.
(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 CFR 63.6595 and ending on December 31.
(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in 40 CFR 63.6595.
(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
(1) Company name and address.
(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
(3) Date of report and beginning and ending dates of the reporting period.
(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by

an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction.
(3) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
(4) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
(4) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
(5) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

**63.6655 What records must I keep?**

If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(3), (b)(1) through (b)(3) and (c) of this section.
A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR63.10(b)(2)(xiv).
(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.
(3) Records of performance tests and performance evaluations as required in 40 CFR63.10(b)(2)(viii).
(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
(1) An existing stationary CI RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
(2) An existing stationary emergency CI RICE.
(3) An existing stationary CI RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the nonresettable hour meter. The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
(1) An existing emergency stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary CI RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines. ???

**63.6660 In what form and how long must I keep my records?**

Your records must be in a form suitable and readily available for expeditious review according to 40 CFR63.10(b)(1).
As specified in 40 CFR63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

**63.6665 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

**63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

***Area source*** means any stationary source of HAP that is not a major source as defined in part 63.

***Associated equipment*** as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

***Black start engine*** means an engine whose only purpose is to start up a combustion turbine.

***CAA*** means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101–549, 104 Stat. 2399).

***Compression ignition*** means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

***Custody transfer*** means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

***Deviation*** means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by 40 CFR63.6(e)(1)(i).

***Diesel engine*** means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

***Diesel fuel*** means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines

***Digester gas*** means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and $CO_2$.

***Dual-fuel engine*** means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

***Emergency stationary RICE*** means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, *etc.* Stationary CI ICE used for peak shaving are not considered emergency stationary ICE. Stationary CI ICE used to supply power to an electric grid or that supply nonemergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under 40 CFR 63.6640(f). Emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may also operate an additional 50 hours per year in non-emergency situations. All other emergency stationary RICE must comply with the requirements specified in 40 CFR 63.6640(f).

***Engine startup*** means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

***Four-stroke engine*** means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

***Gaseous fuel*** means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

***Gasoline*** means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

***Glycol dehydration unit*** means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

***Hazardous air pollutants (HAP)*** means any air pollutants listed in or pursuant to section 112(b) of the CAA.

***ISO standard day conditions*** means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

***Landfill gas*** means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and $CO_2$.

***Lean burn engine*** means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

***Limited use stationary RICE*** means any stationary RICE that operates less than 100 hours per year.

***Liquefied petroleum gas*** means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

***Liquid fuel*** means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

***Major Source,*** as used in this subpart, shall have the same meaning as in 40 CFR63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in 40 CFR63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in 40 CFR63.1271 of subpart HHH of this part, shall not be aggregated.

***Malfunction*** means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

***Natural gas*** means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

***Non-selective catalytic reduction (NSCR)*** means an add-on catalytic nitrogen oxides ($NO_X$) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, $NO_X$, CO, and volatile organic compounds (VOC) into $CO_2$, nitrogen, and water.

***Oil and gas production facility*** as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded ( *i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas

production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

***Oxidation catalyst*** means an add-on catalytic control device that controls CO and VOC by oxidation.

***Peaking unit or engine*** means any standby engine intended for use during periods of high demand that are not emergencies.

***Percent load*** means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

***Potential to emit*** means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in 40 CFR63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to 40 CFR63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to 40 CFR63.1270(a)(2).

***Production field facility*** means those oil and gas production facilities located prior to the point of custody transfer.

***Production well*** means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

***Propane*** means a colorless gas derived from petroleum and natural gas, with the molecular structure $C_3H_8$.

***Residential/commercial/institutional emergency stationary RICE*** means an emergency stationary RICE used in residential establishments such as homes or residences, commercial establishments such as office buildings, hotels, or stores, or institutional establishments such as medical centers, research centers, and institutions of higher education.

***Responsible official*** means responsible official as defined in 40 CFR 70.2.

***Rich burn engine*** means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for $NO_X$ (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

***Site-rated HP*** means the maximum manufacturer's design capacity at engine site conditions.

***Spark ignition*** means relating to: either a gasoline-fueled engine; or any other type of engine a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

***Stationary reciprocating internal combustion engine (RICE)*** means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differs from mobile RICE in that stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

***Stationary RICE test cell/stand*** means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

***Stoichiometric*** means the theoretical air-to-fuel ratio required for complete combustion.

***Storage vessel with the potential for flash emissions*** means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

***Subpart*** means 40 CFR part 63, subpart ZZZZ.

***Surface site*** means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

***Two-stroke engine*** means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

**Table 2b**
**Operating Limitations for Existing Non- Emergency Compression Ignition Stationary RICE >500 HP,**

As stated in 40 CFR 63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and existing, new and reconstructed compression ignition stationary RICE:

| For each ... | You must meet the following operating limitation ... |
|---|---|
| 1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or<br>2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst. | a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and |
| | b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1] |
| 2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or<br>2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst. | Comply with any operating limitations approved by the Administrator. |

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

**Table 2d**
**Requirements for Existing Compression Ignition Stationary RICE Located at Area Sources of HAP Emissions**

As stated in 40 CFR 63.6600 and 63.6640, you must comply with the following emission and operating limitations for existing compression ignition stationary RICE:

| For each … | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must ... |
|---|---|---|
| 1. Non-Emergency, non-black start CI ≤ 300 HP. | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 2. Non-Emergency, non-black start CI 300<HP≤500. | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O2; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 3. Non-Emergency, non-black start CI > 500 HP. | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O2; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 4. Emergency CI and black start CI.[2] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first; | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |

[1] Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.
[2] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

| Table 3<br>Subsequent Performance Tests As stated in 40 CFR 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements: | | |
|---|---|---|
| **For each . . .** | **Complying with the requirement to . . .** | **You must . . .** |
| 4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE. | Limit or reduce CO or formaldehyde emissions. | Conduct subsequent performance tests every 8,760 hrs or 3 years, whichever comes first. |

**Table 4**
**Requirements for Performance Tests**
As stated in §40 CFR 63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE for existing sources:

| For each . . . | Complying with the requirement to . . . | You must . . . | Using . . . | According to the following requirements . . . |
|---|---|---|---|---|
| 1. 2SLB, 4SLB, and CI stationary RICE. | a. Reduce CO emissions. | i. Measure the O2 at the inlet and outlet of the control device; and | (1) Portable CO and O2 analyzer. | (a) Using ASTM D6522–00 (2005) [a, b] (incorporated by reference, see 40 CFR 63.14). Measurements to determine O2 must be made at the same time as the measurements for CO concentration. |
| | | ii. Measure the CO at the inlet and the outlet of the control device. | (1) Portable CO and O2 analyzer. | (a) Using ASTM D6522–00 (2005) a,b (incorporated by reference, see 40 CFR 63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O2, dry basis. |
| 3. Stationary RICE | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. | i. Select the sampling port location and the number of traverse points; and | (1) Method 1 or 1A of 40 CFR part 60, appendix A 40 CFR 63.7(d)(1)(i). | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the O2 concentration of the stationary RICE exhaust at the sampling port location; and | (1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005). | (a) Measurements to determine O2 concentration must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and | (1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03. | (a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iv. Measure formaldehyde at the exhaust of the stationary RICE; or | (1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348–03 [c], provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130. | (a) Formaldehyde concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| | | v. Measure CO at the exhaust of the stationary RICE. | (1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005) [a], Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03. | (a) CO concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour longer runs. |

[a] You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.
[b] You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.
[c] You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

**Table 5**
**Initial Compliance With Emission Limitations and Operating Limitations**
As stated in §40 CFR 63.6612, 63.6625 and63.6630, you must initially comply with the emission and operating limitations as required by the following:

| **For each . .** | **Complying with the requirement to…** | **You have demonstrated initial compliance if ...** |
|---|---|---|
| 8. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source. | a. Reduce CO or formaldehyde emissions ... | i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction. |
| 9. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source. | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. | i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable. |

**Table 6**
**Continuous Compliance With Emission Limitations and Operating Limitations**
As stated in 40 CFR 63.6640, you must continuously comply with the required by the following: emissions and operating limitations as

| For each . . . | Complying with the requirement to . . . | You must demonstrate continuous compliance by . . . |
|---|---|---|
| 8. Stationary RICE >500 HP located at a major source. | Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR. | i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit a; and<br>ii. Collecting the approved operating parameter (if any) data according to 40 CFR 63.6625(b); and<br>iii. Reducing these data to 4-hour rolling averages; and<br>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 9. Existing stationary CI RICE not subject to any numerical emission limitations. | a. Work or Management practices | i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or<br>ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions |
| 10. Existing stationary RICE >500 HP that are not limited use stationary RICE, except 4SRB >500 HP located at major sources.<br>11. Existing limited use stationary RICE >500 HP that are limited use CI stationary RICE. | a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust. | i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit.<br>i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit. |

[a] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

**Table 7**
**Requirements for Reports**
As stated in 40 CFR 63.6650, you must comply with the following requirements for reports:

| You must submit a(n) . . . | The report must contain. . . | You must submit the report . . . |
|---|---|---|
| 1. Compliance report | a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or | i. Semiannually according to the requirements in 40 CFR 63.6650(b)(1)–(5) for engines that are not limited use stationary CI RICE subject to numerical emission limitations; and<br>ii. Annually according to the requirements in 40 CFR 63.6650(b)(6)–(9) for engines that are limited use stationary CI RICE subject to numerical emission limitations. |
| | b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 CFR 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), the information in 40 CFR 63.6650(e); or | i. Semiannually according to the requirements in 40 CFR 63.6650(b). |
| | c. If you had a malfunction during the reporting period, the information in 40 CFR 63.6650(c)(4). | i. Semiannually according to the requirements in 40 CFR 63.6650(b). |
| 2. Report | a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and | i. Annually, according to the requirements in 40 CFR 63.6650. |
| | b. The operating limits provided in your Federally enforceable permit, and any deviations from these limits; and | i. See item 2.a.i. |
| | c. Any problems or errors suspected with the meters. | i. See item 2.a.i. |

**Table 8**
**Applicability of General Provisions to Subpart ZZZZ**
As stated in 40 CFR 63.6665, you must comply with the following applicable general provisions.

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.1 | General applicability of the General Provisions. | Yes. | |
| 63.2 | Definitions | Yes | Additional terms defined in 63.6675. |
| 63.3 | Units and abbreviations | Yes. | |
| 63.4 | Prohibited activities and circumvention | Yes. | |
| 63.5 | Construction and reconstruction | Yes. | |
| 63.6(a) | Applicability | Yes. | |
| 63.6(b)(1)-(4) | Compliance dates for new and reconstructed sources. | Yes. | |
| 63.6(b)(5) | Notification | Yes. | |
| 63.6(b)(6) | [Reserved] | | |
| 63.6(b)(7) | Compliance dates for new and reconstructed area sources that become major sources. | Yes. | |
| 63.6(c)(1)–(2) | Compliance dates for existing sources | Yes. | |
| 63.6(c)(3)–(4) | [Reserved] | | |
| 63.6(c)(5) | Compliance dates for existing area sources that become major sources. | Yes. | |
| 63.6(d) | [Reserved] | | |
| 63.6(e) | Operation and maintenance | No. | |
| 63.6(f)(1) | Applicability of standards | No. | |
| 63.6(f)(2) | Methods for determining compliance | Yes. | |
| 63.6(f)(3) | Finding of compliance | Yes. | |
| 63.6(g)(1)–(3) | Use of alternate standard | Yes. | |
| 63.6(h) | Opacity and visible emission standards | No ... | Subpart ZZZZ does not contain opacity or visible emission standards. |
| 63.6(i) | Compliance extension procedures and criteria. | Yes. | |
| 63.6(j) | Presidential compliance exemption | Yes. | |
| 63.7(a)(1)–(2) | Performance test dates | Yes | Subpart ZZZZ contains performance test dates at 63.6610, 63.6611, and 63.6612. |
| 63.7(a)(3) | CAA section 114 authority | Yes. | |
| 63.7(b)(1) | Notification of performance test | Yes | Except that 63.7(b)(1) only applies as specified in 63.6645. |
| 63.7(b)(2) | Notification of rescheduling | Yes | Except that 63.7(b)(2) only applies as specified in 63.6645. |
| 63.7(c) | Quality assurance/test plan | Yes | Except that 63.7(c) only applies as specified in 63.6645.- |
| 63.7(d) | Testing facilities | Yes. | |
| 63.7(e)(1) | Conditions for conducting performance tests. | No. | Subpart ZZZZ specifies conditions for con-ducting performance tests at 63.6620. |
| 63.7(e)(2) | Conduct of performance tests and reduction of data. | Yes | Subpart ZZZZ specifies test methods at 63.6620. |

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.7(e)(3) | Test run duration | Yes. | |
| 63.7(e)(4) | Administrator may require other testing under section 114 of the CAA. | Yes. | |
| 63.7(f) | Alternative test method provisions | Yes. | |
| 63.7(g) | Performance test data analysis, recordkeeping, and reporting. | Yes. | |
| 63.7(h) | Waiver of tests | Yes. | |
| 63.8(a)(1) | Applicability of monitoring requirements | Yes ... | Subpart ZZZZ contains specific requirements for monitoring at 63.6625. |
| 63.8(a)(2) | Performance specifications | Yes. | |
| 63.8(a)(3) | [Reserved] | | |
| 63.8(a)(4) | Monitoring for control devices | No. | |
| 63.8(b)(1) | Monitoring | Yes. | |
| 63.8(b)(2)–(3) | Multiple effluents and multiple monitoring systems. | Yes. | |
| 63.8(c)(1) | Monitoring system operation and maintenance. | Yes. | |
| 63.8(c)(1)(i) | Routine and predictable SSM | Yes. | |
| 63.8(c)(1)(ii) | SSM not in Startup Shutdown Malfunction Plan. | Yes. | |
| 63.8(c)(1)(iii) | Compliance with operation and maintenance requirements. | Yes. | |
| 63.8(c)(2)–(3) | Monitoring system installation | Yes. | |
| 63.8(c)(4) | Continuous monitoring system (CMS) requirements. | Yes | Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS). |
| 63.8(c)(5) | COMS minimum procedures | No . | Subpart ZZZZ does not require COMS. |
| 63.8(c)(6)–(8) | CMS requirements | Yes | Except that subpart ZZZZ does not require COMS. |
| 63.8(d) | CMS quality control | Yes. | |
| 63.8(e) | CMS performance evaluation | Yes | Except for 63.8(e)(5)(ii), which applies to COMS. Except that 63.8(e) only applies as specified in 63.6645. |
| 63.8(f)(1)–(5) | Alternative monitoring method | Yes . | Except that 63.8(f)(4) only applies as specified in 63.6645. |
| 63.8(f)(6) | Alternative to relative accuracy test | Yes . | Except that 63.8(f)(6) only applies as specified in 63.6645. |
| 63.8(g) | Data reduction | Yes .. | Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at 63.6635 and 63.6640. |
| 63.9(a) | Applicability and State delegation of notification requirements. | Yes. | |

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.9(b)(1)–(5) | Initial notifications | Yes | Except that 63.9(b)(3) is reserved. Except that 63.9(b) only applies as specified in 63.6645. |
| 63.9(c) | Request for compliance extension | Yes | Except that 63.9(c) only applies as specified in 63.6645. |
| 63.9(d) | Notification of special compliance requirements for new sources. | Yes . | Except that 63.9(d) only applies as specified in 63.6645. |
| 63.9(e) | Notification of performance test | Yes . | Except that 63.9(e) only applies as specified in 63.6645. |
| 63.9(f) | Notification of visible emission (VE)/opacity test. | No .. | Subpart ZZZZ does not contain opacity or VE standards. |
| 63.9(g)(1) | Notification of performance evaluation | Yes . | Except that 63.9(g) only applies as specified in 63.6645. |
| 63.9(g)(2) | Notification of use of COMS data | No .. | Subpart ZZZZ does not contain opacity or VE standards. |
| 63.9(g)(3) | Notification that criterion for alternative to RATA is exceeded. | Yes . | If alternative is in use. Except that 63.9(g) only applies as specified in 63.6645. |
| 63.9(h)(1)–(6) | Notification of compliance status | Yes . | Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. 63.9(h)(4) is reserved. Except that 63.9(h) only applies as specified in 63.6645. |
| 63.9(i) | Adjustment of submittal deadlines | Yes. | |
| 63.9(j) | Change in previous information | Yes. | |
| 63.10(a) | Administrative provisions for recordkeeping/reporting. | Yes. | |
| 63.10(b)(1) | Record retention | Yes. | |
| 63.10(b)(2)(i)–(v) | Records related to SSM | No. | |
| 63.10(b)(2)(vi)–(xi) | Records | Yes. | |
| 63.10(b)(2)(xii) | Record when under waiver | Yes. | |
| 63.10(b)(2)(xiii) | Records when using alternative to RATA | Yes.. | For CO standard if using RATA alternative. |
| 63.10(b)(2)(xiv) | Records of supporting documentation | Yes. | |
| 63.10(b)(3) | Records of applicability determination | Yes. | |
| 63.10(c) | Additional records for sources using CEMS. | Yes | Except that 63.10(c)(2)–(4) and (9) are reserved. |
| 63.10(d)(1) | General reporting requirements | Yes. | |
| 63.10(d)(2) | Report of performance test results | Yes. | |
| 63.10(d)(3) | Reporting opacity or VE observations | No | Subpart ZZZZ does not contain opacity or VE standards. |
| 63.10(d)(4) | Progress reports | Yes. | |
| 63.10(d)(5) | Startup, shutdown, and malfunction reports | No. | |
| 63.10(e)(1) and (2)(i) | Additional CMS Reports | Yes. | |
| 63.10(e)(2)(ii) | COMS-related report | No .. | Subpart ZZZZ does not require COMS. |

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 63.10(e)(3) | Excess emission and parameter | Yes.. | Except that 63.10(e)(3)(i) (C) is reserved. |
| 63.10(e)(4) | Reporting COMS data | No | Subpart ZZZZ does not require COMS. |
| 63.10(f) | Waiver for recordkeeping/reporting | Yes. | |
| 63.11 | Flares | No. | |
| 63.12 | State authority and delegations | Yes. | |
| 63.13 | Addresses | Yes. | |
| 63.14 | Incorporation by reference | Yes. | |
| 63.15 | Availability of information | Yes. | |

**40 CFR 63 Subpart WWWWWW—**
**National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations**

**Source:** 73 FR 37741, July 1, 2008, unless otherwise noted.

**Applicability and Compliance Dates**

**§ 63.11504 Am I subject to this subpart?**

(a) You are subject to this subpart if you own or operate a plating and polishing facility that is an area source of hazardous air pollutant (HAP) emissions and meets the criteria specified in paragraphs (a)(1) through (3) of this section.

(1) A plating and polishing facility is a plant site that is engaged in one or more of the processes listed in paragraphs (a)(1)(i) through (vi) of this section.

(i) Electroplating other than chromium electroplating (i.e., non-chromium electroplating).

(ii) Electroless or non-eletrolytic plating.

(iii) Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying.

(iv) Dry mechanical polishing of finished metals and formed products after plating.

(v) Electroforming.

(vi) Electropolishing.

(2) An area source of HAP emissions is any stationary source or group of stationary sources within a contiguous area under common control that does not have the potential to emit any single HAP at a rate of 9.07 megagrams per year (Mg/yr) (10 tons per year (tpy)) or more and any combination of HAP at a rate of 22.68 Mg/yr (25 tpy) or more.

(3) Your plating and polishing facility uses or has emissions of compounds of one or more plating and polishing metal HAP, which means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, as defined in §63.11511, “What definitions apply to this subpart?” With the exception of lead, plating and polishing metal HAP also include any of these metals in the elemental form.

(b) [Reserved]

**§ 63.11505 What parts of my plant does this subpart cover?**

(a) This subpart applies to each new or existing affected source, as specified in paragraphs (a)(1) through (3) of this section, at all times. A new source is defined in §63.11511, “What definitions apply to this subpart?”

(1) Each tank that contains one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”, and is used for non-chromium electroplating; electroforming; electropolishing; electroless plating or other non-electrolytic metal coating operations, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

(2) Each thermal spraying operation that applies one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”

(3) Each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”

(b) An affected source is existing if you commenced construction or reconstruction of the affected source on or before March 14, 2008.

(c) An affected source is new if you commenced construction or reconstruction of the affected source after March 14, 2008.

(d) This subpart does not apply to any of the process units or operations described in paragraphs (d)(1) through (6) of this section.

(1) Process units that are subject to the requirements of 40 CFR part 63, subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks).

(2) Research and development process units, as defined in §63.11511, "What definitions apply to this subpart?"

(3) Process units that are used strictly for educational purposes.

(4) Thermal spraying conducted to repair surfaces.

(5) Dry mechanical polishing conducted to restore the original finish to a surface to apply to restoring the original finish.

(6) Any plating or polishing process that does not use any material that contains cadmium, chromium, lead, or nickel in amounts of 0.1 percent or more by weight, or that contains manganese in amounts of 1.0 percent or more by weight, as reported on the Material Safety Data Sheet for the material.

(e) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, "Title V," provided you are not otherwise required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

**§ 63.11506 What are my compliance dates?**

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart no later than July 1, 2010.

(b) If you own or operate a new affected source for which the initial startup date is on or before July 1, 2008, you must achieve compliance with the provisions of this subpart no later than July 1, 2008.

(c) If you own or operate a new affected source for which the initial startup date is after July 1, 2008, you must achieve compliance with the provisions of this subpart upon initial startup of your affected source.

**Standards and Compliance Requirements**

**§ 63.11507 What are my standards and management practices?**

(a) If you own or operate an affected new or existing non-cyanide electroplating, electroforming, or electropolishing tank (hereafter referred to as an "electrolytic" process tank, as defined in §63.11511, "What definitions apply to this subpart?") that contains one or more of the plating and polishing metal HAP and operates at a pH of less than 12, you must comply with the requirements in paragraph (a)(1), (2), or (3) of this section, and implement the applicable management practices in paragraph (g) of this section, as practicable.

(1) You must use a wetting agent/fume suppressant, as defined in §63.11511, "What definitions apply to this subpart?", in the bath of the affected tank according to paragraphs (a)(1)(i) through (iii) of this section.

(i) You must initially add the wetting agent/fume suppressant in the amounts recommended by the manufacturer for the specific type of electrolytic process.

(ii) You must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

(iii) If a wetting agent/fume suppressant is included in the electrolytic process bath chemicals used in the affected tank according to the manufacturer's instructions, it is not necessary to add additional wetting agent/fume suppressants to the tank to comply with this rule.

(2) You must capture and exhaust emissions from the affected tank to any one of the following emission control devices: composite mesh pad, packed bed scrubber, or mesh pad mist eliminator, according to paragraphs (a)(2)(i) and (ii) of this section.

(i) You must operate all capture and control devices according to the manufacturer's specifications and operating instructions.

(ii) You must keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(3) You must cover the tank surface according to paragraph (a)(3)(i) or (ii) of this section.

(i) For batch electrolytic process tanks, as defined in §63.11511, “What definitions apply to this subpart?”, you must use a tank cover, as defined in §63.11511, over all of the effective surface area of the tank for at least 95 percent of the electrolytic process operating time.

(ii) For continuous electrolytic process tanks, as defined in §63.11511, “What definitions apply to this subpart?”, you must cover at least 75 percent of the surface of the tank, as defined in §63.11511, whenever the electrolytic process tank is in operation.

(b) If you own or operate an affected new or existing “flash” or short-term electroplating tank, as defined in §63.11511, “What definitions apply to this subpart?”, that uses or emits one or more of the plating and polishing metal HAP, you must comply with the requirements specified in paragraph (b)(1) or (b)(2), and implement the applicable management practices in paragraph (g) of this section, as practicable.

(1) You must limit short-term or “flash” electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(2) You must use a tank cover, as defined in §63.11511, “What definitions apply to this subpart?”, for at least 95 percent of the plating time.

(c) If you own or operate an affected new or existing process tank that is used both for short-term electroplating and for electrolytic processing of longer duration (i.e., processing that does not meet the definition of short-term or flash electroplating) and contains one or more of the plating and polishing metal HAP, you must meet the requirements specified in paragraph (a) or (b) of this section, whichever apply to the process operation, and implement the applicable management practices in paragraph (g) of this section, as practicable.

(d) If you own or operate an affected new or existing electroplating tank that uses cyanide in the plating bath, operates at pH greater than or equal to 12, and contains one or more of the plating and polishing metal HAP, you must comply with the requirements in paragraphs (d)(1) and (2) of this section:

(1) You must measure and record the pH of the tank upon start-up. No additional pH measurements are required.

(2) You must implement the applicable management practices in paragraph (g) of this section, as practicable.

(e) If you own or operate an affected new or existing dry mechanical polishing equipment that emits one or more of the plating and polishing metal HAP, you must operate a capture system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter, according to paragraphs (e)(1) and (2) of this section.

(1) You must operate all capture and control devices according to the manufacturer's specifications and operating instructions.

(2) You must keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(f) If you own or operate an affected thermal spraying operation that applies one or more of the plating and polishing metal HAP, you must meet the applicable requirements specified in paragraphs (f)(1) through (3) of this section, and the applicable management practices in paragraph (g) of this section.

(1) For existing permanent thermal spraying operations, you must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a water curtain, fabric filter, or HEPA filter, according to paragraphs (f)(1)(i) and (ii) of this section.

(i) You must operate all capture and control devices according to the manufacturer's specifications and instructions.

(ii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(2) For new permanent thermal spraying operations, you must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric or HEPA filter, according to paragraphs (f)(2)(i) and (ii) of this section.

(i) You must operate all capture and control devices according to the manufacturer's specifications and instructions.

(ii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(3) For temporary thermal spraying operations, as defined in §63.11511 “What definitions apply to this subpart?”, you must meet the applicable requirements specified in paragraphs (f)(3)(i) and (ii) of this section.

(i) You must document the amount of time the thermal spraying occurs each day, and where it is conducted.

(ii) You must implement the applicable management practices specified in paragraph (g) of this section, as practicable.

(g) If you own or operate an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, you must implement the applicable management practices in paragraphs (g)(1) through (12) of this section, as practicable.

(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

(3) Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.

(4) Use tank covers, if already owned and available at the facility, whenever practicable.

(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

(10) Minimize spills and overflow of tanks, as practicable.

(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

**§ 63.11508 What are my compliance requirements?**

(a) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with §63.11509(b) of "What are my notification, reporting, and recordkeeping requirements?"

(b) You must be in compliance with the applicable management practices and equipment standards in this subpart at all times.

(c) To demonstrate initial compliance, you must satisfy the requirements specified in paragraphs (c)(1) through (11) of this section.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(1)(i) through (iv) of this section.

(i) You must add wetting agent/fume suppressant to the bath of each affected tank according to manufacturer's specifications and instructions.

(ii) You must state in your Notification of Compliance Status that you add wetting agent/fume suppressant to the bath according to manufacturer's specifications and instructions.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(2) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a control system, as defined in §63.11511, "What definitions apply to this subpart?", to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(2)(i) through (v) of this section.

(i) You must install a control system designed to capture emissions from the affected tank and exhaust them to a composite mesh pad, packed bed scrubber, or mesh pad mist eliminator.

(ii) You must state in your Notification of Compliance Status that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(v) You must follow the manufacturer's specifications and operating instructions for the control systems at all times.

(3) If you own or operate an affected batch electrolytic process tank, as defined in §63.11511, "What definitions apply to this subpart?", that contains one or more of the plating and polishing metal HAP and which is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a tank cover, as defined in §63.11511, to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(3)(i) through (iv) of this section.

(i) You must install a tank cover on the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(4) If you own or operate an affected continuous electrolytic process tank, as defined in §63.11511, "What definitions apply to this subpart?", that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you cover the tank surface to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(4)(i) through (iv) of this section.

(i) You must cover at least 75 percent of the surface area of the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the surface cover in place whenever the continuous electrolytic process is in operation.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(5) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply with this subpart by limiting the plating time of the affected tank, you must demonstrate initial compliance according to paragraphs (c)(5)(i) through (iii) of this section.

(i) You must state in your Notification of Compliance Status that you limit short-term or flash electroplating to no more than 1 cumulative hour per day, or 3 cumulative minutes per hour of plating time.

(ii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(6) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must demonstrate initial compliance according to paragraphs (c)(6)(i) through (iv) of this section.

(i) You must install a tank cover on the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the cover in place at least 95 percent of the plating time.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(7) If you own or operate an affected tank that contains one or more of the plating and polishing metal HAP, uses cyanide in the bath, and is subject to the management practices specified in §63.11507(d), "What are my standards and management practices?", you must demonstrate initial compliance according to paragraphs (c)(7)(i) through (iii) of this section.

(i) You must report in your Notification of Compliance Status the pH of the bath solution that was measured at start-up, according to the requirements of §63.11507(d)(1).

(ii) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(iii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11490(g), “What are my standards and management practices?”, as practicable.

(8) If you own or operate an affected dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(e), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(8)(i) through (iii) of this section.

(i) You must install a control system that is designed to capture PM emissions from the polishing operation and exhaust them to a cartridge, fabric, or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(9) If you own or operate an existing affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(1), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(9)(i) through (iii) of this section.

(i) You must install a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a water curtain, fabric filter, or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed and are operating the control system according to the manufacturer's specifications and instructions.

(iii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(10) If you own or operate a new affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(2), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(10)(i) through (iii) of this section.

(i) You must install and operate a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a fabric or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed and operate the control system according to the manufacturer's specifications and instructions.

(iii) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(11) If you own or operate an affected temporary thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(3), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(11)(i) and (ii) of this section.

(i) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(ii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(d) To demonstrate continuous compliance with the applicable management practices and equipment standards specified in this subpart, you must satisfy the requirements specified in paragraphs (d)(1) through (8) of this section.

(1) You must always operate and maintain your affected source, including air pollution control equipment.

(2) You must prepare an annual compliance certification according to the requirements specified in §63.11509(c), "Notification, Reporting, and Recordkeeping," and keep it in a readily-accessible location for inspector review.

(3) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(3)(i) through (iii) of this section.

(i) You must record that you have added the wetting agent/fume suppressant to the tank bath in the original make-up of the tank.

(ii) For tanks where the wetting agent/fume suppressant is a separate purchased ingredient from the other tank additives, you must demonstrate continuous compliance according to paragraphs (d)(3)(ii) (A) and (B) this section.

(A) You must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

(B) You must record each addition of wetting agent/fume suppressant to the tank bath.

(iii) You must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(4) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a control system to comply with this subpart; an affected dry mechanical polishing operation that is subject to §63.11507(e); or an affected thermal spraying operation that is subject to §63.11507(f)(1) or (2), you must demonstrate continuous compliance according to paragraphs (d)(4)(i) through (v) of this section.

(i) You must operate and maintain the control system according to the manufacturer's specifications and instructions.

(ii) Following any malfunction or failure of the capture or control devices to operate properly, you must take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions.

(iii) You must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(iv) You must record the results of all control system inspections, deviations from proper operation, and any corrective action taken.

(v) You must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

(5) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply with this subpart by limiting the plating time for the affected tank, you must demonstrate continuous compliance according to paragraphs (d)(5)(i) through (iii) of this section.

(i) You must limit short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(ii) You must record the times that the affected tank is operated each day.

(iii) You must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(6) If you own or operate an affected batch electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements of §63.11507(a), "What are my standards and management practices?", or a flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), and you comply by operating the affected tank with a cover, you must demonstrate continuous compliance according to paragraphs (d)(6)(i) through (iii) of this section.

(i) You must operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(ii) You must record the times that the tank is operated and the times that the tank is covered on a daily basis.

(iii) You must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the electrolytic process time.

(7) If you own or operate an affected continuous electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you cover your tanks to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(7)(i) and (ii) of this section.

(i) You must operate the tank with at least 75 percent of the surface covered during all periods of electrolytic process operation.

(ii) You must state in your annual certification that you have operated the tank with 75 percent of the surface covered during all periods of electrolytic process operation.

(8) If you own or operate an affected tank or other operation that is subject to the management practices specified in §63.11507(g), "What are my standards and management practices?", you must demonstrate continuous compliance according to paragraphs (d)(8)(i) and (ii) of this section.

(i) You must implement the applicable management practices during all times that the affected tank or process is in operation.

(ii) You must state in your annual compliance certification that you have implemented the applicable management practices, as practicable.

**§ 63.11509 What are my notification, reporting, and recordkeeping requirements?**

(a) If you own or operate an affected source, as defined in §63.11505(a), "What parts of my plant does this subpart cover?", you must submit an Initial Notification in accordance with paragraphs (a)(1) through (4) of this section by the dates specified.

(1) The Initial Notification must include the information specified in §63.9(b)(2)(i) through (iv) of the General Provisions of this part.

(2) The Initial Notification must include a description of the compliance method (e.g., use of wetting agent/fume suppressant) for each affected source.

(3) If you start up your affected source on or before July 1, 2008, you must submit an Initial Notification not later than 120 calendar days after July 1, 2008.

(4) If you start up your new affected source after July 1, 2008, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(b) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with paragraphs (b)(1) and (2) of this section.

(1) The Notification of Compliance Status must be submitted before the close of business on the compliance date specified in §63.11506, "What are my compliance dates?"

(2) The Notification of Compliance Status must include the items specified in paragraphs (b)(2)(i) through (iv) of this section.

(i) List of affected sources and the plating and polishing metal HAP used in, or emitted by, those sources.

(ii) Methods used to comply with the applicable management practices and equipment standards.

(iii) Description of the capture and emission control systems used to comply with the applicable equipment standards.

(iv) Statement by the owner or operator of the affected source as to whether the source is in compliance with the applicable standards or other requirements.

(c) If you own or operate an affected source, you must prepare an annual certification of compliance report according to paragraphs (c)(1) through (7) of this section. These reports do not need to be submitted unless a deviation from the requirements of this subpart has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in §63.11507(a)(1), "What are my standards and management practices?", you must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(2) If you own or operate any one of the affected sources listed in paragraphs (c)(2)(i) through (iii) of this section, you must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(i) Electroplating, electroforming, or electropolishing tank that is subject to the requirements in §63.11507(a), "What are my standards and management practices?", and you use a control system to comply with this subpart;

(ii) Dry mechanical polishing operation that is subject to §63.11507(e); or

(iii) Permanent thermal spraying operation that is subject to §63.11507(f)(1) or (2).

(3) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply with this subpart by limiting the plating time of the affected tank, you must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(4) If you own or operate an affected batch electrolytic process tank that is subject to the requirements of §63.11507(a) or a flash or short-term electroplating tank that is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the electrolytic process time.

(5) If you own or operate an affected continuous electrolytic process tank that is subject to the requirements of §63.11507(a), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must state in your annual certification that you have covered at least 75 percent of the surface area of the tank during all periods of electrolytic process operation.

(6) If you own or operate an affected tank that is subject to the management practices specified in §63.11507(g), "What are my standards and management practices?", you must state in your annual compliance certification that you have implemented the applicable management practices, as practicable.

(7) Each annual compliance report must be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation has occurred during the year, each annual compliance report must be submitted along with the deviation report, and postmarked or delivered no later than January 31 of the year immediately following the reporting period.

(d) If you own or operate an affected source, and any deviations from the compliance requirements specified in this subpart occurred during the year, you must report the deviations, along with the corrective action taken, and submit this report to the delegated authority.

(e) You must keep the records specified in paragraphs (e)(1) through (3) of this section.

(1) A copy of any Initial Notification and Notification of Compliance Status that you submitted and all documentation supporting those notifications.

(2) The records specified in §63.10(b)(2)(i) through (iii) and (xiv) of the General Provisions of this part.

(3) The records required to show continuous compliance with each management practice and equipment standard that applies to you, as specified in §63.11508(d), "What are my compliance requirements?"

(f) You must keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1) of the General Provisions to part 63. You may keep the records offsite for the remaining 3 years.

**Other Requirements and Information**

**§ 63.11510 What General Provisions apply to this subpart?**

If you own or operate a new or existing affected source, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 1 of this subpart.

**§ 63.11511 What definitions apply to this subpart?**

Terms used in this subpart are defined in this section.

*Batch electrolytic process tank* means a tank used for an electrolytic process in which a part or group of parts, typically mounted on racks or placed in barrels, is placed in the tank and immersed in an electrolytic process solution as a single unit (i.e., as a batch) for a predetermined period of time, during which none of the parts are removed from the tank and no other parts are added to the tank, and after which the part or parts are removed from the tank as a unit.

*Bath* means the liquid contents of a tank that is used for electroplating, electroforming, electropolishing, or other metal coating processes at a plating and polishing facility.

*Capture system* means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device, as part of a complete control system. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

*Cartridge filter* means a type of control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM from a gas stream by sieving and other mechanisms. Cartridge filters can be designed with single use cartridges, which are removed and disposed after reaching capacity, or continuous use cartridges, which typically are cleaned by means of a pulse-jet mechanism.

*Composite* mesh pad means a type of control device similar to a mesh pad mist eliminator except that the device is designed with multiple pads in series that are woven with layers of material with varying fiber diameters, which produce a coalescing effect on the droplets or PM that impinge upon the pads.

*Continuous electrolytic process tank* means a tank that uses an electrolytic process and in which a continuous metal strip or other type of continuous substrate is fed into and removed from the tank continuously. This process is also called reel-to-reel electrolytic plating.

*Control device* means equipment that is part of a control system that collects and/or reduces the quantity of a pollutant that is emitted to the air. The control device receives emissions that are transported from the process by the capture system.

*Control system* means the combination of a capture system and a control device. The capture system is designed to collect and transport air emissions from the affected source to the control device. The overall control efficiency of any control system is a combination of the ability of the system to capture the air emissions (i.e., the capture efficiency) and the control device efficiency. Consequently, it is important to achieve good capture to ensure good overall control efficiency. Capture

devices that are known to provide high capture efficiencies include hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans.

*Cyanide plating* means plating processes performed in tanks that use cyanide as a major bath ingredient and that operate at pH of 12 or more, and use or emit any of the plating and polishing metal HAP, as defined in this section. Electroplating and electroforming are performed with or without cyanide. The cyanide in the bath works to dissolve the HAP metal added as a cyanide compound (e.g., cadmium cyanide) and creates free cyanide in solution, which helps to corrode the anode. These tanks are self-regulating to a pH of 12 due to the caustic nature of the cyanide bath chemistry. The cyanide in the bath is a major bath constituent and not an additive; however, the self-regulating chemistry of the bath causes the bath to act as if wetting agents/fume suppressants are being used and to ensure an optimum plating process. All cyanide plating baths at pH greater than or equal to 12 have cyanide-metal complexes in solution. The metal HAP to be plated is not emitted because it is either bound in the metal-cyanide complex or reduced at the cathode to elemental metal, and plated onto the immersed parts. Cyanide baths are not intentionally operated at pH less 12 since unfavorable plating conditions would occur in the tank, among other negative effects.

*Deviation* means any instance in which an affected source or an owner or operator of such an affected source:

(1) Fails to meet any requirement or obligation established by this rule including, but not limited to, any equipment standard (including emissions and operating limits), management practice, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this rule and that is included in the operating permit for any affected facility required to obtain such a permit; or

(3) Fails to meet any equipment standard (including emission and operating limits), management standard, or operation and maintenance requirement in this rule during startup, shutdown, or malfunction.

*Dry mechanical polishing* means a process used for removing defects from and smoothing the surface of finished metals and formed products after plating with any of the plating and polishing metal HAP, as defined in this section, using hard-faced abrasive wheels or belts and where no liquids or fluids are used to trap the removed metal particles.

*Electroforming* means an electrolytic process using or emitting any of the plating and polishing metal HAP, as defined in this section, that is used for fabricating metal parts. This process is essentially the same as electroplating except that the plated substrate (mandrel) is removed, leaving only the metal plate. In electroforming, the metal plate is self-supporting and generally thicker than in electroplating.

*Electroless plating* means a non-electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Electroless plating is also called non-electrolytic plating. Examples include, but are not limited to, chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

*Electrolytic plating processes* means electroplating and electroforming that use or emit any of the plating and polishing metal HAP, as defined in this section, where metallic ions in a plating bath or solution are reduced to form a metal coating on the surface of parts and products using electrical energy.

*Electroplating* means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metal ions in solution are reduced onto the surface of the work piece (the cathode) via an electrical current. The metal ions in the solution are usually replenished by the dissolution of metal from solid metal anodes fabricated of the same metal being plated, or by direct replenishment of the solution with metal salts or oxides; electroplating is also called electrolytic plating.

*Electropolishing* means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a work piece is attached to an anode immersed in a bath, and the metal substrate is dissolved electrolytically, thereby removing the surface contaminant; electropolishing is also called electrolytic polishing.

*Fabric filter* means a type of control device used for collecting PM by filtering a process exhaust stream through a filter or filter media. A fabric filter is also known as a baghouse.

*Flash electroplating* means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or no more than 1 cumulative hour per day.

*General Provisions of this part (40 CFR part 63, subpart A)* means the section of the Code of Federal Regulations (CFR) that addresses air pollution rules that apply to all HAP sources addressed in part 63, which includes the National Emission Standards for Hazardous Air Pollutants (NESHAP).

*HAP* means hazardous air pollutant as defined from the list of 188 chemicals and compounds specified in the CAA Amendments of 1990; HAP are also called "air toxics." The five plating and polishing metal HAP, as defined in this section, are on this list of 188 chemicals.

*High efficiency particulate air (HEPA) filter* means a type of control device that uses a filter composed of a mat of randomly arranged fibers and is designed to remove at least 99.97 percent of airborne particles that are 0.3 micrometers or larger in diameter.

*Mesh pad mist eliminator* means a type of control device, consisting of layers of interlocked filaments densely packed between two supporting grids that remove liquid droplets and PM from the gas stream through inertial impaction and direct interception.

*Metal coating operation* means any process performed either in a tank that contains liquids or as part of a spraying operation that applies one or more plating and polishing metal HAP, as defined in this section, to parts and products used in manufacturing. These processes include but are not limited to: Non-chromium electroplating; electroforming; electropolishing; other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying.

*New source* means any affected source for which you commenced construction or reconstruction after March 14, 2008.

*Non-cyanide electrolytic plating and electropolishing processes* means electroplating, electroforming, and electropolishing that uses or emits any of the plating and polishing metal HAP, as defined in this section, performed without cyanide in the tank. These processes do not use cyanide in the tank and operate at pH values less than 12. These processes use electricity and add or remove metals such as metal HAP from parts and products used in manufacturing. Both electroplating and electroforming can be performed with cyanide as well.

*Non-electrolytic plating* means a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Non-electrolytic plating is also called electroless plating. Examples include chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

*Packed-bed scrubber* means a type of control device that includes a single or double packed bed that contains packing media on which PM and droplets impinge and are removed from the gas stream. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.

*Plating and polishing facility* means a facility engaged in one or more of the following processes that uses or emits any of the plating and polishing metal HAP, as defined in this section: Electroplating processes other than chromium electroplating (i.e., non-chromium electroplating); electroless plating; other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; thermal spraying; and the dry mechanical polishing of finished metals and formed products after plating.

*Plating and polishing metal HAP* means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form, with the exception of lead. Any material that does not contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight, and does not contain manganese in amounts greater than or equal to 1.0 percent by weight, as reported on the Material Safety Data Sheet for the material, is not considered to be a plating and polishing metal HAP.

*Plating and polishing process tanks* means any tank in which a process is performed at an affected plating and polishing facility that uses or has the potential to emit any of the plating and polishing metal HAP, as defined in this section. The processes performed in plating and polishing tanks include the following: Electroplating processes other than chromium electroplating (i.e., non-chromium electroplating) performed in a tank; electroless plating; and non-electrolytic metal coating

processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and electropolishing. This term does not include tanks containing solutions that are used to rinse or wash parts prior to placing the parts in a plating and polishing process tank, or subsequent to removing the parts from a plating and polishing process tank. This term also does not include thermal spraying or dry polishing with machines.

*PM* means solid or particulate matter that is emitted into the air.

*Research and development process unit* means any process unit that is used for conducting research and development for new processes and products and is not used to manufacture products for commercial sale, except in a *de minimis* manner.

*Short-term plating* means an electroplating process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or 1 hour cumulative per day.

*Tank cover* for batch process units means a solid structure made of an impervious material that is designed to cover the entire open surface of a tank or process unit that is used for plating or other metal coating processes.

*Tank cover* for continuous process units, means a solid structure or combination of structures, made of an impervious material that is designed to cover at least 75 percent of the open surface of the tank or process unit that is used for continuous plating or other continuous metal coating processes.

*Temporary thermal spraying* means a thermal spraying operation that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that lasts no more than 1 hour in duration during any one day and is conducted in situ. Thermal spraying that is conducted in a dedicated thermal spray booth or structure is not considered to be temporary thermal spraying.

*Thermal spraying* (also referred to as metal spraying or flame spraying) is a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a metallic coating is applied by projecting molten or semi-molten metal particles onto a substrate. Commonly-used thermal spraying methods include high velocity oxy-fuel (HVOF) spraying, flame spraying, electric arc spraying, plasma arc spraying, and detonation gun spraying.

*Water curtain* means a type of control device that draws the exhaust stream through a continuous curtain of moving water to scrub out suspended PM.

*Wetting agent/fume suppressant* means any chemical agent that reduces or suppresses fumes or mists from a plating and polishing tank by reducing the surface tension of the tank bath.

**§ 63.11512 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g), of the General Provisions of this part.

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9), of the General Provisions of this part.

(3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f), of the General Provisions of this part. A “major change to test method” is defined in §63.90.

(4) Approval of a major change to monitoring under §63.8(f), of the General Provisions of this part. A “major change to monitoring” is defined in §63.90.

(5) Approval of a major change to recordkeeping and reporting under §63.10(f), of the General Provisions of this part. A "major change to recordkeeping/reporting" is defined in §63.90.

**§ 63.11513 [Reserved]**

**Table 1 to Subpart WWWWWW of Part 63. Applicability of General Provisions to Plating and Polishing Area Sources**

As required in §63.11510, "What General Provisions apply to this subpart?", you must meet each requirement in the following table that applies to you.

| Citation | Subject |
|---|---|
| 63.1 | Applicability. |
| 63.2 | Definitions. |
| 63.3 | Units and abbreviations. |
| 63.4 | Prohibited activities. |
| 63.6(a), (b)(1)–(b)(5), (c)(1), (c)(2), (c)(5), (j) | Compliance with standards and maintenance requirements. |
| 63.10(a), (b)(1), (b)(2)(i)–(iii),(xiv), (b)(3), (d)(1), (f) | Recordkeeping and reporting. |
| 63.12 | State authority and delegations. |
| 63.13 | Addresses of State air pollution control agencies and EPA regional offices. |
| 63.14 | Incorporation by reference. |
| 63.15 | Availability of information and confidentiality. |

[1]Section 63.11505(e), "What parts of my plant does this subpart cover?", exempts affected sources from the obligation to obtain title V operating permits.

Statement of Basis
**AIR POLLUTION OPERATION PERMIT**
**NOs. 0990021-013-AV; 0990021-014-AV; 0990021-015-AV**

United Technologies Corporation - Pratt & Whitney
Facility ID No. 0990021

Palm Beach County, Florida

**FACILITY DESCRIPTION**

Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

P&W was issued a Title V air operation permit by the Health Department on July 17, 2004 (FDEP Permit No. 0990021-006-AV), and was designated as a major source of criteria pollutants, including nitrogen oxides (NOx) and carbon monoxide (CO). In addition, P&W is a major source of volatile organic compounds (VOC), as defined by Title V regulations.

SAC, which is located on the same campus but in a wholly separate building, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing, and the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility. SAC was issued a Federally Enforceable State Operating Permit (FESOP) by Health Department on February 2, 2007 (FDEP Permit No. 0990185-004-AF) and is designated as a synthetic minor source for hazardous air pollutants (HAPs).

FDEP deemed that P&W and SAC are under common control, and thus should have a common Title V air operating permit. The permittee submitted an application that included two sites. The applicant also requested an air construction permit to designate the combined facility as a synthetic minor source for HAPs.

This Title V permit revision/renewal also incorporates the conditions of the construction permits 0990021-010-AC (emission unit #080), and 0990021-012-AC (emission unit # 079), and 0990021-020-AC (to combine both sites and to designate the facility as synthetic minor for HAPs).
Based on the Title V Air Operation Permit Renewal application received March 08, 2010, this facility is not a major source of hazardous air pollutants (HAPs).
Regulatory classifications for this facility include the following designations:

| PROGRAM | PROGRAM DESCRIPTION | CLASSIFICATION |
|---|---|---|
| PSD | Prevention of Significant Deterioration<br>Rule 62-212.400, F.A.C | Major Source |
| NSR-NAA | New Source Review for Nonattainment Areas<br>Rule 62-212.500, F.A.C. | Not Applicable |
| RACT (NOx) | Diesel Electrical Generators subject to Rule 62-296.570, F.A.C | |
| NSPS | New Source Performance Standards | Not Applicable |
| NESHAP | The facility is subject to the requirements of 40 CFR 61, Subpart M, Asbestos. In addition, the emergency generators are subject to 40 CFR Part 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." The chromium tank is subject to 40 CFR part 63 Subpart WWWWWW "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations. | Synthetic Minor Source |
| Title V Operating Permit | Federal Operating Permit Program<br>Rule 62-213, F.A.C | Major Source |

**LIST OF EMISSIONS UNITS**

*This permit addresses the following emissions units (EU):*

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| 001 | I | Air compressors/heater (ACHR-2-B2)<br>*[This EU is no longer in operation and is removed per Applicant's request]* |
| 009 | U | Diesel storage tanks |
| 010 | U | Jet fuel storage tanks |
| 012 | R | Jet fuel storage tank (F-8-CFF) |
| 014 | R | Paint spray booth (PS-1-TMC) used for refinishing support equipment |
| 015 | U | Closed-loop flush cleaning (BF-1-RL-10) using Vertrel MCA |
| 016 | R | Boiler (BO-12-E6) fired by natural gas – 42 MMBTU/hr Heat Input |
| 018 | U | Acid gas scrubbing system (AS-2-MPL) for plating operations |
| 021 | I | Alkali scrubbing system (AS-15-MPL) controls nickel and silver plating lines<br>*[This EU is no longer in operation and is removed per Applicant's request]* |
| 022 | R | Boilers (BO-1-MBH, BO-2-MBH) fired by natural gas – 54 MMBTU/hr Heat Input per Boiler |
| 031 | U | Diesel storage tanks (DL-19-SEGF and DL-20-SEGF) |
| 037 | U | AST Gasoline storage tanks |
| 040 | U | Heat treatment furnaces (FU-3-MHT and FU-4-MHT) fired by natural gas |
| 045 | U | Water evaporator (EV-1-MW) |
| 049 | U | Plasma spray booths |
| 053 | I | Woodshop dust collector (DC-1-MM)<br>[This EU is no longer in operation and is removed from the permit per Applicant's request] |
| 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) |
| 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 – 6.7 MMBTU/Hr Heat Input |
| 068 | R | Emergency electrical generating facility |
| 069 | U | JP-8 Fueled Jet engine test stands – Test Area A/C |
| 070 | U | Aerospace hand-wiping operations |
| 071 | U | Aerospace spray gun cleaning operations |
| 072 | U | Aerospace flush cleaning operations |
| 073 | U | Aerospace primer and topcoat application operations |
| 074 | U | Aerospace waste storage and handling operations |
| 075 | I | LOX/Kerosene rocket engine test stand<br>[This EU was never constructed and is removed from the permit per Applicant's request] |
| 076 | I | Kerosene Fuel Storage Tank<br>[This EU is no longer in operation and is removed from the permit per Applicant's request] |
| 077 | R | Combustion turbine test stands – Fired by Natural Gas |
| 078 | R | Vertrel Vapor Degreaser |
| 079 | R | Two JP8 fired Turbine Engines |
| 080 | R | E-8 Rocket Engine Test Stand |
| ***Following emission units are located at Sikorsky Aircraft Corporation*** | | |
| na | I | Inactive (EU 001 of Sikorsky permit – 0990185-004-AF) |
| na | I | Inactive (EU 002 of Sikorsky permit – 0990185-004-AF) |
| na | I | Inactive (transferred to ARMS EU No. 0990021-063) |
| na | I | Inactive (transferred to ARMS EU No. 0990021-064) |

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| na | I | Inactive (spray booth PS-15-SIK has been removed) (EU 007 of Sikorsky permit – 0990185-004-AF) |
| 081 | R | SYK - Spray Booth (PS-14-SIK) [Previously EU 006 in Sikorsky permit] |
| 082 | R | SYK - Spray Booth (PS-16-SIK) [Previously EU 008 in Sikorsky permit] |
| na | I | Spray Booth (PS-13-SIK) (EU 010 of Sikorsky permit – 0990185-004-AF) Unit is removed |
| 083 | R | SYK - Boiler (BO-4-SIK) [Previously EU 009 in Sikorsky permit] |

* (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.
** I = Inactive

**REGULATORY APPLICABILITY**

*Halogenated solvent vapor cleaning machines subject to NESHAP Subpart T* - At the time the current Title V Air Operation Permit was issued, trichloroethylene was still used in two vapor cleaning machines (EU006 and EU024) subject to this NESHAP. As of November 8, 2002, both of these halogenated vapor cleaners have been closed and demolished. Trichloroethylene is no longer used for any parts cleaning at the facility, therefore, there are no emission units subject to 40 CFR 63, *Subpart* T.

*Aerospace manufacture and rework activities subject to NESHAP, Subpart GG* - This facility operates the following sources subject to this NESHAP: hand-wipe cleaning operations; spray gun cleaning operations; flush cleaning operations; primer and topcoat application operations; and waste storage and handling operations. Currently, the facility uses only specialty coatings which are not covered by the coating control requirements of the NESHAP. This facility does not have any depainting or Type I, II chemical milling maskant operations. There are three flush cleaning operations that have switched from trichloroethylene to Vertrel (non HAP solvent), in addition they are completely closed-loop systems. Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. Because these emission units process clean space vehicle engines and tubes, Subpart GG does not apply.

*Fuel storage tanks subject to NSPS, Subpart Kb* - In the original Title V permit there were three existing fuel storage tanks subject only to the record keeping requirements (tank size and liquid vapor pressure) of this NESHAP. Recent changes in Subpart Kb, have eliminated these recordkeeping requirements for tanks with this capacity. There are no emission units subject to 40 CFR 60, Subpart Kb.

*Small boilers subject to a BACT determination* - Rule 62-296.406, F.A.C. requires a BACT determination for particulate matter and sulfur dioxide for boilers with a heat input of less than 250 MMBtu/hr. The facility operates four boilers with heat inputs of 54 MMBtu/hr, 42 MMBtu/hr, 7 MMBtu/hr, and 2.93 MMBtu/hr. The Department has determined that BACT for these small sources will be the use of natural gas or propane. Records are required for the fuel consumption. An annual visible emissions test is not required when the facility documents exclusive use of pipeline quality natural gas or commercial grade propane.

*Emergency electrical generating station subject to NOx RACT, and 40 CFR 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"* - The facility operates an emergency electrical generating station to provide minimal electrical power needs in the event of a power outage. This station consists of 16 identical diesel engines with a pair of engines powering a single generator. These engines are currently subject to Rule 62-296.570, F.A.C., major source NOx RACT. Information form the manufacturer indicates that these engines are capable of complying with this regulation. Because these engines are only operated for emergency purposes and monthly testing, this rule requires no testing unless an engine operates 400 hours or more in any 12 month period. Pursuant to regulations finalized on March 03, 2010, these emission units are subject to 40 CFR part 63 subpart ZZZZ.

*Miscellaneous spray booths* - The facility operates four spray/fume control booths used to refinish support equipment, apply adhesives to wood laminate models, and coat nonproduction prototype parts. Each booth has been through a preconstruction review and has a limit on the amount of VOC usage. Compliance is demonstrated by record keeping coating, thinner, cleaner, and adhesive usage. The recently promulgated 40 CFR 63, Subpart MMMM - National Emission Standards for Hazardous Air Pollutants for Surface Coating Operations of Miscellaneous Metal Parts and Products are not applicable to research facilities or to facilities subject to Subpart GG National Emission Standards for Hazardous Air Pollutants for aerospace manufacturing and rework facilities.

*Jet engine test stands* - Also included as an "unregulated" emissions unit are ten existing jet engine test stands. 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:

- The Department would not require air pollution permits for the individual test stands nor the relocatable jet engines.
- The Department would not specify conditions in other permits that would affect the scheduling or utilization of individual test stands or relocatable jet engines.
- The Department would require the permittee to report jet fuel consumption on a facility-wide basis. The main concern at this time was reporting an accurate emissions inventory for tracking "reasonable further progress" towards attainment of the ozone standard.

However, recent guidance from the EPA (listed below) indicates that jet engine test stands are considered stationary sources of air pollution.

12-31-95: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells

03-12-96: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells

09-23-96: EPA-APT to Mr. John R. McDowell, PE: Title V Applicability Issues Related to the Cincinnati/Northern Kentucky International Airport

Therefore, the Health Department established the jet engine test stands as existing, "unregulated" stationary emissions units with no limits on operation.

On December 4, 2001, the Health Department issued construction permit 0990021-005-AC for the modification of the existing combustion turbine test stands. The applicant proposed to conduct both Research and Development (R&D) and Quality Assurance/Quality Control (QA/QC) activities on its stationary combustion turbine product line while firing natural gas and/or distillate oil. The applicant requested that the construction permit contain a federally-enforceable cap on emissions from the modified activities at levels below those that would trigger a major modification under Rule 62-212.400, F.A.C. The permit contains two emission limits; 39.9 tons per year for NOx and 99.9 tons per year for CO, as well as natural gas usage limit corresponding to these emissions levels.

The Health Department, in reviewing the project also concluded that those test stands not undergoing an expansion of the natural gas firing or distillate oil firing capacities would remain unchanged and unregulated. Based on discussions with the DEP, it was concluded that the R&D and QA/QC activities would not be subject to Rule 62-296.570, F.A.C. - state emission standards for gas turbines located at major NOx sources within Palm Beach County, Compliance with the emission caps will be demonstrated through a emissions inventory and record keeping system. The emissions inventory will be supported by historical Pratt & Whitney emissions data obtain through R&D and QA/QC activities. The data will be subject to a Quality Assurance Plan (QAP) that will be implemented once actual emissions equal or exceed eighty (80) percent of the emission caps.
The emissions unit has been identified as a Source Category potentially subject to the National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands (40 CFR Part 63, Subpart PPPPP). In accordance with 40 CFR 63.9290 (d) of this Subpart, any portion of the affected source used exclusively for testing rocket engines is not subject to requirements of Subpart PPPPP or subpart A of Part 63. 40 CFR 63.9290(d)(1) also exempts the test stands that are used exclusively for testing the combustion turbine engines.

*Two JP8 fired Turbine Engines:* Permit No. 090021-012-AC was issued on 11/17/2008 to modify the permit for turbine engines. The operating hours of these engines are restricted to 375 hrs each per year. The potential emissions of NOx and CO from these engines are estimated to be 36.7 and 42.5 tons per year respectively. These modification of these engines remain as a minor modification under PSD regulations since the project's maximum increase in criteria pollutant emissions for CO and NOx will remain below 100 and 40 tons per year, which are the PSD significant emission rate.

*Single Chrome Conversion Tank:* This tank is located at Sikorsky site and is subject to 40 CFR Part 63 Subpart WWWWWW "*National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations."*

**Summary**

Based on the Title V permit renewal application received March 08, 2010, this facility is a major source of criteria air pollutants. The facility is not a major source of hazardous air pollutants (HAPs). There are no emission units subject to Compliance Assurance Monitoring (CAM) requirements at this facility. This Title V air operation permit revision/renewal is being issued to satisfy the requirements of Chapter 403, F.S. and Chapter 213, F.A.C., as well as to maintain an accurate emissions inventory for Palm Beach County.

# TECHNICAL EVALUATION

# AND

# PRELIMINARY DETERMINATION

**Draft Air Permit No. 0990021-020-AC**

United Technologies Corporation
SR 710, 17900 Beeline Highway
Jupiter, FL 33478

Palm Beach County, Florida

Permitting & Compliance 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

Air Permit Engineer: Laxmana Tallam, P.E.

## 1.0 APPLICATION INFORMATION

1.1 Applicant

United Technologies Corporation / Pratt & Whitney
P.O. Box: 109600, MS 717-03
West Palm Beach, FL 33410

*Authorized Representative:*
Steve Bouley
Pratt & Whitney Rocketdyne
Vice President, Launch Vehicle and Hypersonic Systems

1.2 Application Review

06/04/2010: Health Department received response to request for additional information
04/06/2010: Health Department issued a request for additional information
03/08/2010: Health Department received application for construction permit

## 2.0 FACILITY INFORMATION

2.1 Location

Pratt & Whitney
SR 710, 17900 Beeline Highway, Jupiter, FL 33478
UTM: Zone 17; 568.41 km E; 2975.84 km N

2.2 Standard Industrial Classification Code

| | | |
|---|---|---|
| Major Group Number | 37 | Transportation Equipment |
| Industry Group Number | 372 | Aircraft and Parts |
| Industry Number | 3724 | Aircraft Engines and Engine Parts |

2.3 Regulatory Classification

This facility is a PSD facility. This facility is classified as a Title V facility based on the emissions of Nitrogen Oxides, Carbon Monoxide (CO), Sulfur dioxide (SO2). This facility has emissions units that are subject to RACT, NESHAP, and BACT regulations. The details of other emissions units can be found in the constructions permit. This permit combines Pratt & Whitney (P&W) and Sikorsky Aircraft Corporation sites, since these sites are owned by the United Technologies Corporation.

## 3.0 PROJECT DESCRIPTION

Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

P&W was issued a Title V air operation permit by the Health Department on July 17, 2004 (FDEP Permit No. 0990021-006-AV), and is designated as a major source of criteria pollutants, including nitrogen oxides (NOx) and carbon monoxide (CO). In addition, P&W is a major source of volatile organic compounds (VOC), as defined by Title V regulations.

SAC, which is located on the same campus but in a wholly separate building, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing, and the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility. SAC was issued a Federally Enforceable State Operating Permit (FESOP) by Health Department on February 2, 2007 (FDEP Permit No. 0990185-004-AF) and is designated as a synthetic minor source for hazardous air pollutants (HAPs). The permit no. 0990021-020-AC limits the emissions of individual HAP to 9.9 tons per year; and the total HAPs to 24.9 tons per year.

In a Request for Additional Information (RAI) letter dated April 29, 2009, FDEP deemed that P&W and SAC are under common control, and thus should have a common Title V air operating permit. Because of combining both operations in one permit, the applicant requested an air construction permit to designate the combined facility as a synthetic minor source for HAPs along with the Title V permit renewal.

## 4.0 RULE APPLICABILITY

The facility is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). This facility is located in Palm Beach County, an area designated as "maintenance" for the pollutant ozone and attainment for all other criteria pollutants in accordance with Rule 62-204.340, F.A.C. The facility is subject to the following air pollution control provisions:

**Florida Administrative Code**

| | | |
|---|---|---|
| **Chapter 62-4, F.A.C** | **-** | **Permits.** |
| *Rule 62-4.160, F.A.C* | - | *General Permit Conditions* |
| **Chapter 62-204, F.A.C.** | **-** | **Air Pollution Control - General Provisions** |
| **Chapter 62-210, F.A.C** | **-** | **Stationary Sources - General Requirements** |
| *Rule 62-210.300, F.A.C* | - | *Permits Required.* |
| *Rule 62-210.350, F.A.C* | - | *Public Notice and Comment.* |
| *Rule 62-210.370, F.A.C* | - | *Reports.* |
| *Rule 62-210.650, F.A.C* | - | *Circumvention.* |
| *Rule 62-210.700, F.A.C* | - | *Excess Emissions.* |
| **Chapter 62-212, F.A.C** | **-** | **Stationary Sources - Preconstruction Review** |
| *Rule 62-212.300, F.A.C* | - | *General Preconstruction Review Requirements* |
| **Chapter 62-296, F.A.C** | **-** | **Stationary Sources - Emissions Standards** |
| *Rule 62-296.320, F.A.C* | - | *General Pollutant Emission Limiting Standards.* |
| **Chapter 62-297, F.A.C** | **-** | **Stationary Sources - Emissions Monitoring** |
| *Rule 62-297.310, F.A.C* | - | *General Test Requirements.* |
| *Rule 62-297.400, F.A.C.* | - | *EPA Test Methods Adopted by Reference* |

**Code of Federal Regulations**

The facility **is** subject to requirements of 40 CFR 60 Subpart Dc "Standards of Performance for Small Industrial/Commercial/Institutional Boilers."
The emergency generators are subject to 40 CFR Part 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."
This facility is not subject to 40 CFR Part 63 Subpart PPPP "National Emission Standards for Hazardous Air Pollutants for Engine Test Cells /Stands". Rule 40 CFR 63.9290(d) (2) states that the Subpart PPPP does not apply for a source that is used exclusively for testing rocket engines.
The facility is not subject to 40 CFR Part 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities', since the facility is engaged in manufacturing of military jet engines. The facility shall notify the Department when it is engaged in jet engine activities.

## 5.0 SOURCE IMPACT ANALYSIS

5.1 Potential Emissions of Criteria Pollutants/Hazardous Air Pollutants

**TABLE 1**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, BOILER BO-12-E6 (EU 016)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Pollutant | Activity Factor | | Emission Factor[b] (lb/MMscf) | Emissions | |
|---|---|---|---|---|---|
| | Hourly[a] (MMscf/hr) | Annual[a] (MMscf/yr) | | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides ($NO_x$) | 0.0398 | 348.7 | 100.0 | 3.98 | 17.4 |
| Carbon Monoxide (CO) | 0.0398 | 348.7 | 84.0 | 3.34 | 14.6 |
| Particulate Matter (PM) | 0.0398 | 348.7 | 7.6 | 0.303 | 1.33 |
| Particulate Matter <10 microns ($PM_{10}$) | 0.0398 | 348.7 | 7.6 | 0.303 | 1.33 |
| Sulfur Dioxide ($SO_2$) | 0.0398 | 348.7 | 0.6 | 0.0239 | 0.105 |
| Volatile Organic Compounds (VOC) | 0.0398 | 348.7 | 5.5 | 0.219 | 0.959 |
| Total HAPs | 0.0398 | 348.7 | 1.8 | 0.072 | 0.314 |

Footnotes:

[a] Annual activity factor based on an assumed natural gas heating value of 1,050 British thermal units per standard cubic feet of natural gas burned and a maximum heat input rate of 41.8 MMBtu/hr. Hourly activity factor based on operating 8,760 hours per year.

[b] Emission factors are based on EPA's AP-42, Chapter 1.4, Table 1.4-1 and Table 1.4-2.

[c] Total maximum annual HAPs emissions based on Hexane with the highest emission factor of 1.8 lb/$10^6$ scf, AP-42 Table 1.4-3

lb/hr = pounds per hour
TPY = tons per year
MMscf = million standard cubic feet

**TABLE 2**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, BOILERS BO-1-MBH AND BO-2-MBH (EU 022)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Pollutant | Activity Factor (Total) | | Emission Factor[b] | Emissions (2 Boilers) | |
|---|---|---|---|---|---|
| | Hourly[a] (MMscf/hr) | Annual[a] (MMscf/yr) | (lb/MMscf) | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides ($NO_x$) | 0.1029 | 901.0 | 100.0 | 10.29 | 45.1 |
| Carbon Monoxide (CO) | 0.1029 | 901.0 | 84.0 | 8.64 | 37.8 |
| Particulate Matter (PM) | 0.1029 | 901.0 | 7.6 | 0.782 | 3.42 |
| Particulate Matter <10 microns ($PM_{10}$) | 0.1029 | 901.0 | 7.6 | 0.782 | 3.42 |
| Sulfur Dioxide ($SO_2$) | 0.1029 | 901.0 | 0.6 | 0.0617 | 0.270 |
| Volatile Organic Compounds (VOC) | 0.1029 | 901.0 | 5.5 | 0.566 | 2.48 |
| Total HAPs[c] | 0.1029 | 901.0 | 1.8 | 0.185 | 0.81 |

Footnotes:

[a] Annual activity factor based on an assumed natural gas heating value of 1,050 million British thermal units per million cubic feet of natural gas burned, and a maximum heat input rate of 54 MMBtu/hr/boiler. Hourly activity factor based on operating 8,760 hours per year. Total annual natural gas usage = (450.5 MMcf/yr) x (2 boilers) = 901.0 MMcf/yr

[b] Emission factors are based on EPA's AP-42, Chapter 1.4, Table 1.4-1 and Table 1.4-2.

[c] Total maximum annual HAPs emissions based on Hexane with the highest emission factor of 1.8 lb/$10^6$ scf,AP-42 Table 1.4-3

lb/hr = pounds per hour

TPY = tons per year

MMscf = million standard cubic feet

**TABLE 3**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, BOILER BO-14-E8 (EU 066)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| | Activity Factor | | | Emissions | |
|---|---|---|---|---|---|
| **Pollutant** | **Hourly[a] ($10^3$ gal/hr)** | **Annual[a] ($10^3$ gal/yr)** | **Emission Factor[b] (lb/$10^3$ gal)** | **Hourly (lb/hr)** | **Annual (TPY)** |
| Nitrogen Oxides ($NO_x$) | 0.0732 | 641.4 | 13.0 | 0.952 | 4.17 |
| Carbon Monoxide (CO) | 0.0732 | 641.4 | 7.5 | 0.549 | 2.41 |
| Particulate Matter (PM) | 0.0732 | 641.4 | 0.7 | 0.0513 | 0.224 |
| Particulate Matter <10 microns ($PM_{10}$) | 0.0732 | 641.4 | 0.7 | 0.0513 | 0.224 |
| Sulfur Dioxide ($SO_2$) | 0.0732 | 641.4 | 0.005 | 0.000366 | 0.00160 |
| Volatile Organic Compounds (VOC) | 0.0732 | 641.4 | 1.0 | 0.0732 | 0.321 |
| Total HAPs[c] | 0.0732 | 641.4 | 1.8 | 0.1318 | 0.577 |

Footnotes:

[a] Annual activity factor based on an assumed propane heating value of 91,500 British thermal units per gallon of propane burned (Btu/gal), and a maximum heat input rate of 6.7 MMBtu/hr. Hourly activity factor based on operating 8,760 hours per year).

[b] Emission factors are based on EPA's AP-42, Chapter 1.5, Table 1.5-1.

[c] Total maximum annual HAPs emissions based on Hexane with the highest emission factor of 1.8 lb/$10^6$ scf

lb/hr = pounds per hour

TPY = tons per year

MMscf = million standard cubic feet

**TABLE 4**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, BOILER BO-4-SIK**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| | Activity Factor | | Emission Factor[b] | Emissions | |
|---|---|---|---|---|---|
| Pollutant | Hourly[a] (MMscf/hr) | Annual[a] (MMscf/yr) | (lb/MMscf) | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides (NOx) | 0.0028 | 24.4 | 100.0 | 0.28 | 1.2 |
| Carbon Monoxide (CO) | 0.0028 | 24.4 | 84.0 | 0.23 | 1.0 |
| Particulate Matter (PM) | 0.0028 | 24.4 | 7.6 | 0.021 | 0.09 |
| Particulate Matter <10 microns (PM10) | 0.0028 | 24.4 | 7.6 | 0.021 | 0.09 |
| Sulfur Dioxide (SO2) | 0.0028 | 24.4 | 0.6 | 0.002 | 0.007 |
| Volatile Organic Compounds (VOC) | 0.0028 | 24.4 | 5.5 | 0.015 | 0.067 |
| Total HAPs[c] | 0.0028 | 24.4 | 1.8 | 0.005 | 0.022 |

Footnotes:

[a] Annual activity factor based on an assumed natural gas heating value of 1,050 million British thermal units per standard cubic feet of natural gas burned, and a maximum heat input rate of 2.93 MMBtu/hr. Hourly activity factor based on operating 8,760 hours per year).

[b] Emission factors are based on EPA's AP-42, Chapter 1.4, Table 1.4-1 and Table 1.4-2.

[c] Total maximum annual HAPs emissions based on Hexane with the highest emission factor of 1.8 lb/$10^6$ scf

lb/hr = pounds per hour

TPY = tons per year

MMscf = million standard cubic feet

**TABLE 5**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, EMERGENCY ELECTRICAL GENERATORS (EU 068)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Pollutant | Activity Factor | | Emission Factor[b] (lb/MMBtu) | Emissions | |
|---|---|---|---|---|---|
| | Hourly[a] (MMBtu/hr) | Annual[a] (MMBtu/yr) | | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides ($NO_x$) | 244.8 | 97,675 | 4.75 | 1,162.8 | 232.0 |
| Carbon Monoxide (CO) | 244.8 | 97,675 | 0.95 | 232.6 | 46.40 |
| Particulate Matter (PM) | 244.8 | 97,675 | 0.31 | 75.89 | 15.14 |
| Particulate Matter <10 microns ($PM_{10}$) | 244.8 | 97,675 | 0.31 | 75.89 | 15.14 |
| Sulfur Dioxide ($SO_2$) | 244.8 | 97,675 | 0.29 | 70.99 | 14.16 |
| Volatile Organic Compounds (VOC) | 244.8 | 97,675 | 0.35 | 85.68 | 17.09 |
| Total HAPs[c] | 244.8 | 97,675 | 0.0018 | 0.44 | 0.09 |

Footnotes:

[a] Annual activity factor based on an assumed diesel heating value of 138,000 Btu/gal of diesel burned, 244.8 MMBtu/hr, and a total of 399 hours per generator per year. (244.8 MMBtu/hr) x (399 hr/yr) = 97,675 MMBtu/yr.

[b] Unless otherwise noted, all emission factors are based on EPA's AP-42, Chapter 3.3, Table 3.3-1.

NOx emission factor of 4.75 lb/MMBtu is an applicant requested limit to escape RACT

[c] Total maximum annual HAPs emissions based on Formaldehyde with the highest emission factor of 0.00118 lb/MMBtu

lb/hr = pounds per hour

TPY = tons per year

**TABLE 6**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, COMBUSTION TURBINE TEST STAND (EU 077)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| | Activity Factor | | Emission Factor[b] | Emissions | |
|---|---|---|---|---|---|
| Pollutant | Hourly[a] (MMscf/hr) | Annual[a] (MMscf/yr) | (lb/MMBtu) | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides ($NO_x$) | 0.310 | 992 | 0.32 | 104.16 | 166.66 |
| Carbon Monoxide (CO) | 0.310 | 992 | 0.082 | 26.69 | 42.71 |
| Particulate Matter (PM) | 0.310 | 992 | 0.0047 | 1.53 | 2.45 |
| Particulate Matter <10 microns ($PM_{10}$) | 0.310 | 992 | 0.0019 | 0.62 | 0.99 |
| Sulfur Dioxide ($SO_2$) | 0.310 | 992 | 0.0034 | 1.11 | 1.77 |
| Volatile Organic Compounds (VOC) | 0.310 | 992 | 0.0021 | 0.68 | 1.09 |
| Total HAPs[c] | 0.310 | 992 | 0.000134 | 0.04 | 0.07 |

Footnotes:

[a] Annual activity factor based on 0.310 MMscf/hr as limited in Permit No. 0990021-006-AV and a maximum annual natural gas usage of 992 MMscf/yr as limited in Permit No. 0990021-006-AV.

[b] Emission factors are based on EPA's AP-42, Chapter 3.1, Table 3.1-2a.

[c] Total maximum annual HAPs emissions based on Toluene with the highest emission factor of 0.000134 lb/MMBtu

lb/hr = pounds per hour

TPY = tons per year

**TABLE 7a**

**TYPICAL LIST OF COATING USAGE AND PRODUCT INFORMATION, PAINT SPRAY BOOTH PS-1-TMC (EU 014)**

**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product ID | Product Name | Mfr. | Density (lb/gal) | VOC Content (lb/gal) | HAP CAS No. | HAP Name | HAP Content (lb/gal) |
|---|---|---|---|---|---|---|---|
| 10005 | Gougeon,105 Resin | Gougeon Brothers | 0 | 0 | NA | NA | NA |
| A0176 | Activator 5301 | Rustoleum | 8.79 | 2.08 | NA | NA | NA |
| A0177 | Activator 5303 | Rustoleum | 10.95 | 1.64 | NA | NA | NA |
| E0075 | Courtalds,Epoxy Primer | Courtalds Aerospace | 6.94 | 6.94 | 1330-20-7 | Xylene | 0.01 |
| | | | | | 100-41-4 | Ethyl Benzene | 0.001 |
| | | | | | 108-88-3 | Toluene | 0.1 |
| G0035 | Glid-Guard Alkyd Machine Gray | Glidden Company | 8 | 5.04 | NA | NA | NA |
| G0085 | Glid-Guard Epoxy Solvent,5568 | Glidden Company | 6.89 | 6.89 | 100-41-4 | Ethyl Benzene | 0.1 |
| | | | | | 108-10-1 | Methyl Isobutyl Ketone | 0.3 |
| | | | | | 1330-20-7 | Xylene | 0.5 |
| | | | | | 71-43-2 | Benzene | 0.001 |
| G0095 | Glid-Guard High Solids Epoxy,5433 | Glidden Company | 11.31 | 4.64 | NA | NA | NA |
| G0140 | Glid-Guard Tank & Structural Primer,R4A05329 | Glidden Company | 8.22 | 3.5 | NA | NA | NA |
| G0150 | Glid-Thane II 6200 White | Glidden Company | 10.39 | 4.05 | NA | NA | NA |
| G0160 | Glid-Thane II 6221 Roller Solvent,AT6B 63375 | Glidden Company | 7.83 | 7.87 | 1330-20-7 | Xylene | 0.01 |
| G0170 | Glid-Thane II Acrylic Polyurethane B,6252 | Glidden Company | 8.22 | 4.05 | 100-41-4 | Ethyl Benzene | 0.1 |
| | | | | | 1330-20-7 | Xylene | 0.4 |
| | | | | | 71-43-2 | Benzene | 0.001 |
| G0251 | Gray Primer 5381 | Rustoleum | 11.19 | 1.68 | NA | NA | NA |
| H0024 | Glid,Hi Temp Aluminum,5542 | Glidden Company | 8.1 | 6.08 | NA | NA | NA |
| I0010 | Glid,Industrial Enamel Clear Tint Base,4503 | Glidden Company | 8.22 | 3.62 | NA | NA | NA |
| L0015 | Lacquer Thinner, PMC 9022 | Brand Nu [No MSDS for Axton Cross Co.] | 6.76 | 6.76 | 108-10-1 | Methyl Isobutyl Ketone | 0.05 |
| | | | | | 108-88-3 | Toluene | 0.3 |
| L0050 | Glid,LifeMaster Pro White Tint Base,6900 | Glidden Company | 8.22 | 2.1 | NA | NA | NA |
| M0136 | Marlin Blue 5323 | Rustoleum | 10.18 | 1.53 | NA | NA | NA |
| P9026 | 95-812 PITTHANE ULTRA PORCELAIN (PT A) WHITE | PPG Industries, Inc. | 12.19308 | 2.01 | 1330-20-7 | Xylenes | 1.0 |
| R0230 | Glid,RustMaster Oil Enamel-High Gloss,520 | Glidden Company | 8.34 | 4.8 | NA | NA | NA |
| T0087 | KN 1-Thermal Paint | Thermal Paint Temperature Technology, Inc | 9.42 | 5.47 | 1330-20-7 | Xylene | 0.31 |
| T0088 | KN 3-Thermal Paint | Thermal Paint Temperature Technology, Inc | 10.93 | 4.48 | 1330-20-7 | Xylene | 0.3 |
| T0089 | KN 5-Thermal Paint | Thermal Paint Temperature Technology, Inc | 9.67 | 5.32 | 1330-20-7 | Xylene | 0.21 |
| T0090 | Solvent-Thermal Paint | Thermal Paint Temperature Technology, Inc | 8.09 | 8.09 | NA | NA | NA |

**TABLE 7b**
**MAXIMUM ANNUAL VOC AND HAP EMISSIONS, PAINT SPRAY BOOTH PS-1-TMC (EU 014)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product ID | Product Name | VOC Content (lb/gal) | HAP CAS No. | HAP Content (lb/gal) | Annual Activity (gal/yr) | Annual VOC Emissions (TPY) | Annual HAP Emissions (TPY) |
|---|---|---|---|---|---|---|---|
| I. Maximum VOC Emissions[a] | | | | | | | |
| T0090 | Solvent-Thermal Paint | varies | NA | NA | 5,022 | 11.5 | NA |
| II. Maximum HAP Emissions[b] | | | | | | | |
| P9026 | 95-812 PITTHANE ULTRA PORCELAIN (PT A) WHITE | NA | 1330-20-7 | 1.0 | 5,022 | NA | 2.51 |

Footnotes:

[a] Maximum annual VOC emissions based on an assumption that the coating product with the highest VOC content (T0090) was used at the annual activity factor (5,022 gal/yr). Refer to Table 7a. Although this represents a "worst-case" scenario, the emission unit is limited to 11.5 TPY VOC emissions in its permit. The facility maintains usage records and performs calculations demonstrating compliance with the 11.5 TPY limit.

[b] Maximum annual HAP emissions based on an assumption that the coating product with the highest total HAP content (P9026) was used at the annual activity factor (5,022 gal/yr). Refer to Table 7a.

[c] Total maximum hourly HAPs emissions based are considered negligible

VOC = volatile organic compounds

HAP = hazardous air pollutants

TPY = tons per year

**TABLE 8a**
**TYPICAL LIST OF COATING USAGE AND PRODUCT INFORMATION, PAINT SPRAY BOOTH PSB-1-RTF (EU 064)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product ID | Product Name | Mfr. | Density (lb/gal) | VOC Content (lb/gal) | HAP CAS No. | HAP Name | HAP Content (lb/gal) |
|---|---|---|---|---|---|---|---|
| 10020 | 290 Adhesive/Sealant,Loctite | Loctite Corporation | 8.93 | 1.13 | NA | NA | NA |
| 10055 | 9D Mold & Pattern | Multicore Solders | 8.02 | 7.06 | NA | NA | NA |
| A0010 | ACE Five Start Flat Latex Wall Paint | Ace Hardware | 11.27 | 6.4 | NA | NA | NA |
| A0020 | Acetone - (9008 & 1914) | Exxon Chemical Company | 6.6 | 6.6 | NA | NA | NA |
| A0030 | Acrylic Adhesive SC-125 | Caseway Industrial Products | 11.022 | 0 | NA | NA | NA |
| A0065 | SW,Acrylyd F8X-1 | Sherwin Williams | 8 | 6.8 | NA | NA | NA |
| A0080 | Motor Oil IM6, Air | Snap-On Tools Corporation | 7.35 | 0.22 | NA | NA | NA |
| A0120 | Amdro Insecticide | American Cyanamid Company | 15 | 0.132 | NA | NA | NA |
| B0020 | Biodyne | Bowman Distribution | 8.57 | 0.363 | NA | NA | NA |
| B0046 | H1000 Waterborne Primer NLR H1000Z | BASF | 10.51 | 5 | NA | NA | NA |
| C0005 | Car Groom 1200 Grit Finishing Compound,81010 | U. S. Chemicals & Plastics | 0 | 4.73 | NA | NA | NA |
| C0100 | CRC 5-56 Drying Oil | CRC Industries | 6.82 | 4.77 | NA | NA | NA |
| C0115 | Freeman, Cream Hardener | Freeman Manufacturing | 10.02 | 0 | NA | NA | NA |
| D0005 | D-A Poly Lube 2 | D-A Lucricant Company | 7.85 | 0 | NA | NA | NA |
| D0010 | DAP Weldwood Contact Cement | DAP, Inc. | 7.06 | 6.18 | NA | NA | NA |
| D0030 | Delta Adhesive Contact | Delta Laboratories | 10.73 | 9.85 | NA | NA | NA |
| D0110 | Dykem Steel Blue 80,000 SP-1100 | ITW Dykem Corporation | 7.18 | 6.8 | NA | NA | NA |
| D0120 | Dykem Steel Blue Layout Fluid | ITW Dykem Corporation | 7.01 | 6.27 | NA | NA | NA |
| D0135 | Dynatron Liquid Hardener, Bondo | Bondo Corporation | 9.77 | 9.77 | NA | NA | NA |
| D0136 | Denatured Alcohol (Ethanol, SDA-40B) | Dow Chemical Co. | 6.76 | 6.63 | 67-56-1 | Methanol | 0.02 |
| D0140 | Deft H. P. Corrosion Inhibiting Primer | Deft Chemical Coatings | 13.03 | 2.61 | 98-82-8 | Cumeme | 0.1 |
| E0010 | Eccobond Solder 64C (A) Epoxy,Emerson | Emerson & Cuming | 26.72 | 0.8 | NA | NA | NA |
| E0015 | Eccobond Solder 64C (B),Emerson | Emerson & Cuming | 8.35 | 4.18 | NA | NA | NA |
| E0020 | Electric Motor Cleaner | Bowman Distribution | 10.86 | 10.86 | NA | NA | NA |
| E0025 | Electrodag 438 | Acheson Colloids | 0 | 5.5 | NA | NA | NA |
| E0030 | Electrodag Silver Paint, 415 | Acheson Colloids | 9.17 | 5.41 | NA | NA | NA |
| F0005 | Feather Rite | U.S. Chemicals & Plastics | 0 | 1.46 | NA | NA | NA |
| F0010 | FeatherFil, Evercoat | Evercoat | 14.76 | 4.34 | NA | NA | NA |
| F0025 | Finish-Tec Universal Primer | Transtar | 9.4242 | 4.69 | 84-74-2 | Dibutyl Phthalate | 0.024 |
| | | | | | 100-41-4 | Ethyl Benzene | 0.006 |
| | | | | | 67-56-1 | Methanol | 0.014 |
| | | | | | 108-10-1 | Methyl Isobutyl Ketone | 0.125 |
| | | | | | 108-88-3 | Toluene | 0.179 |
| | | | | | 1330-20-7 | Xylene | 0.03 |
| F0085 | Freon T. F. Degreaser | Osborn Manufacturing | 12.53 | 12.53 | NA | NA | NA |
| G0015 | GC 201 Multi-Surface Cleaner | Spartan Chemical Company, Inc. | 8.6 | 0.43 | NA | NA | NA |
| G0030 | Glid-Guard 5250 Tinting White | Glidden Company | 0 | 3.76 | NA | NA | NA |
| G0080 | Glid-Guard Epoxy Curing Agent,5242 | Glidden Company | 8.22 | 4.17 | NA | NA | NA |
| G0145 | Glid-Guard White Finish,5240 | Glidden Company | 0 | 3.76 | NA | NA | NA |
| H0025 | Hi-Temp C5-A Anti Sieze Lubricant,Fel Pro | Fel Pro, Inc. | 9.52 | 9.52 | NA | NA | NA |
| K0005 | SW,KEM Lustral Enamel | Sherwin Williams | 8.45 | 3.95 | NA | NA | NA |
| K0111 | Thermoset K1203 | Lord Corporation | 17.11 | 4.02 | NA | NA | NA |
| L0005 | SW,Lacquer Primer | Sherwin Williams | 9.17 | 4.92 | NA | NA | NA |
| L0015 | Lacquer Thinner, PMC 9022 | Brand Nu [No MSDS for Axton Cross Co.] | 6.76 | 6.76 | 78-93-3 | Methyl Ethyl Ketone | 0.1 |
| | | | | | 108-10-1 | Methyl Isobutyl Ketone | 0.05 |
| | | | | | 108-88-3 | Toluene | 0.3 |

**TABLE 8a**
**TYPICAL LIST OF COATING USAGE AND PRODUCT INFORMATION, PAINT SPRAY BOOTH PSB-1-RTF (EU 064)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product ID | Product Name | Mfr. | Density (lb/gal) | VOC Content (lb/gal) | HAP CAS No. | HAP Name | HAP Content (lb/gal) |
|---|---|---|---|---|---|---|---|
| L0076 | 292 CuPro-Cote Copper Conductive Coating | Less EMF Inc. | 11 | 0.3 | NA | NA | NA |
| M0050 | MEK Peroxide | Clear Coat Corportion | 9.27 | 9.27 | NA | NA | NA |
| M0135 | MS-180 Freon T.F. Solvent,Miller Stephenson | Miller-Stephenson Chemical Company | 13.11 | 13.11 | NA | NA | NA |
| M0138 | Methyl isobutyl ketone | Mallinckrodt | 6.67 | 6.67 | 108-10-1 | Methyl Isobutyl Ketone | 6.67 |
| O0030 | SW,Opex Production Lacquer | Sherwin Williams | 7.48 | 6.8 | NA | NA | NA |
| O0040 | SW,Opex-Lacquer Primer-Surfacer,P61A1 | Sherwin Williams | 7.48 | 6.8 | NA | NA | NA |
| O0048 | OptiClear 101 | National Diagnostics | 7.089 | 7.089 | NA | NA | NA |
| P0035 | Tuf-Fil, Pine,Freeman | Freeman Manufacturing | 15.35 | 0.32 | NA | NA | NA |
| P0085 | Poly Shield Polyester Resin,Kardol | Kardol | 9.35 | 4.21 | NA | NA | NA |
| P0100 | Polyester Liquid Hardener,Fiberglass Evercoat | Fiberglass Evercoat Company | 9.5 | 0.19 | NA | NA | NA |
| P0130 | Courtaulds,PR-1660-L Part B | Courtaulds Aerospace | 8.43 | 0.927 | NA | NA | NA |
| P0145 | PRC Graphite | Products Research | 16.76 | 0.55 | NA | NA | NA |
| P0195 | PST Pipe Sealant,Loctite | Loctite Corporation | 10.1 | 1.71 | NA | NA | NA |
| P0210 | PVA Parting Agent | Glue Products of Florida | 7.76 | 3.31 | NA | NA | NA |
| P9023 | 910-702 Integral Fuel Tank Coating Activator | PRC-DeSoto International | 9.87 | 0.99 | NA | NA | NA |
| P9024 | 010X311 Solvent Reducer Thinner Component | PRC-DeSoto International | 6.68 | 6.68 | NA | NA | NA |
| P9025 | 825X537 Urethane Primer Low Impact Resistant FM5735 | PRC-DeSoto International | 10.21 | 4.97 | NA | NA | NA |
| P9026 | 95-812 PITTHANE ULTRA PORCELAIN (PT A) WHITE | PPG Industries, Inc. | 12.19308 | 2.01 | NA | NA | NA |
| R0030 | Alcohol, Reageant | Fisher Scientific | 6.68 | 6.68 | NA | NA | NA |
| R0040 | Red Devil Oil Enamel Polyurethane - Gloss | Thompson & Formby, Inc. | 9.44 | 5.82 | NA | NA | NA |
| R0120 | RP 1129 Hardener, Ciba-Geigy | Ciba-Geigy | 9.35 | 9.35 | NA | NA | NA |
| R0125 | RP 1129 Resin, Ciba-Geigy | Ciba-Geigy | 12.4 | 6.79 | NA | NA | NA |
| R0205 | Glid,RustMaster Aluminum Enamel | Glidden Company | 8.34 | 4.8 | NA | NA | NA |
| S0010 | ITW,Safetap Cutting, Boring Lubricant | ITW Dykem Corporation | 8.43 | 0.09 | NA | NA | NA |
| S0015 | Sanding Sealer | Glue Products | 7.51 | 5.81 | NA | NA | NA |
| S0025 | SB-8 0032,Acheson Colloids | Acheson Colloids | 7.01 | 7.01 | NA | NA | NA |
| S0150 | 3M,Super 77 Adhesive | 3M | 5.82 | 4.36 | NA | NA | NA |
| S0160 | Super Serub 160 Accent Base,Behr | Behr Processing Corporation | 10.77 | 1.97 | NA | NA | NA |
| S0165 | Surfacing Wax Modifier C | Glue Products of FLA | 7.55 | 7.55 | NA | NA | NA |
| T0020 | TAP Magic Cutting Fluid,Stenco | Steco Corporation | 11.27 | 10.2 | NA | NA | NA |
| T0025 | Teflon Dry Lube | Bowman Distribution | 5.01 | 4.96 | NA | NA | NA |
| T0060 | Toluene (PMC 9072 or 4428) | Glue Products | 7.26 | 7.26 | 108-88-3 | Toluene | 1 |
| T0075 | Tremco Finish-Tec Universal Primer | BF Goodrich | 9.185 | 5.11 | 108-88-3 | Toluene | 0.23 |
| | | | | | 1330-20-7 | Xylene | 0.03 |
| | | | | | 67-56-1 | Methanol | 0.01 |
| | | | | | 108-10-1 | Methyl Isobutyl Ketone | 0.12 |
| T0085 | True Open Gear Lube,Uni-Chem | Uni-Chem Corportion of Florida | 7.12 | 7.12 | NA | NA | NA |
| T0086 | Thermoset K1203 | Lord Corporation | 17.11 | 6.02 | NA | NA | NA |
| Z0005 | Z-7 Debonder PT-16,Pacer | Pacer Technology | 7.03 | 6.68 | NA | NA | NA |

**TABLE 8b**
**MAXIMUM ANNUAL VOC AND HAP EMISSIONS, PAINT SPRAY BOOTH PSB-1-RTF (EU 064)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product I | Product Name | VOC Content (lb/gal) | HAP CAS No. | HAP Name | HAP Content (lb/gal) | Annual Activity (gal/yr) | Annual VOC Emissions (TPY) | Annual HAP Emissions (TPY) |
|---|---|---|---|---|---|---|---|---|
| I. Maximum VOC Emissions[a] | | | | | | | | |
| M0135 | MS-180 Freon T.F. Solvent,Miller Stephenson | varies | NA | NA | NA | 1,420 | 2.84 | NA |
| II. Maximum HAP Emissions[b] | | | | | | | | |
| M0138 | Methyl isobutyl ketone | NA | 108-10-1 | Methyl Isobutyl Ketone | 6.67 | 1,420 | NA | 4.74 |

Footnotes:

[a] Maximum annual VOC emissions based on an assumption that the coating product with the highest VOC content (M0135) was used at the annual activity factor (1,420 gal/yr). Refer to Table 8a. Although this represents a "worst-case" scenario, the emissions unit is limited to 2.84 TPY VOC emissions in its permit. The facility maintains usage records and performs calculations demonstrating compliance with the 2.84 TPY limit.

[b] Maximum annual HAP emissions based on an assumption that the coating product with the highest total HAP content (M0138) was used at the annual activity factor (1,420 gal/yr). Refer to Table 8a.

[c] Total maximum hourly HAPs emissions based are considered negligible

VOC = volatile organic compounds

HAP = hazardous air pollutants

TPY = tons per year

**TABLE 9**
**MAXIMUM ANNUAL VOC AND HAP EMISSIONS, PAINT SPRAY BOOTH PS-14-SIK**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product ID | Product Name | VOC Content (lb/gal) | HAP CAS No. | HAP Name | HAP Content (lb/gal) | Annual Activity (gal/yr) | Annual VOC Emissions (TPY) | Annual HAP Emissions (TPY) |
|---|---|---|---|---|---|---|---|---|
| I. Maximum VOC Emissions[a] | | | | | | | | |
| T0090 | Solvent-Thermal Paint | 3.5 | NA | NA | NA | 1,200 | 2.1 | NA |
| II. Maximum HAP Emissions[b] | | | NA | varies | 3.5 | 1,200 | NA | 2.1 |

Footnotes:

[a] Maximum annual VOC emissions based on FESOP permit 099-0185-004-AF limited to 20.4 TPY of VOC for spray booths PS-14-SIK and PS-16-SIK

[b] Maximum annual HAP emissions based on FESOP limits Permit No. 099-0185-004 AF limited to 9.50 TPY for HAPs for spray booths PS-14-SIK and PS-16-SIK.

The facility maintains usage records and performs calculations demonstrating compliance with the facility cap of 24.9 TPY of total HAPs and less than 9.9 TPY of individual HAPS

[c] Total maximum hourly HAPs emissions based are considered negligible

VOC = volatile organic compounds

HAP = hazardous air pollutants

TPY = tons per year

**TABLE 10**
**MAXIMUM ANNUAL VOC AND HAP EMISSIONS, PAINT SPRAY BOOTH PS-16-SIK**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product ID | Product Name | VOC Content (lb/gal) | HAP CAS No. | HAP Name | HAP Content (lb/gal) | Annual Activity (gal/yr) | Annual VOC Emissions (TPY) | Annual HAP Emissions (TPY) |
|---|---|---|---|---|---|---|---|---|
| I. Maximum VOC Emissions[a] | | | | | | | | |
| T0090 | Solvent-Thermal Paint | 3.5 | NA | NA | NA | 4,300 | 7.5 | NA |
| II. Maximum HAP Emissions[b] | | | NA | varies | 3.5 | 4,300 | NA | 7.5 |

Footnotes:

[a] Maximum annual VOC emissions based on FESOP permit 099-0185-004-AF limited to 20.4 TPY of VOC for spray booths PS-14-SIK and PS-16-SIK

[b] Maximum annual HAP emissions based on FESOP limits Permit No. 099-0185-004 AF limited to 9.50 TPY for HAPs for spray booths PS-14-SIK and PS-16-SIK.

The facility maintains usage records and performs calculations demonstrating compliance with the facility cap of 24.9 TPY of total HAPs and less than 9.9 TPY of individual HAPS

[c] Total maximum hourly HAPs emissions based are considered negligible

VOC = volatile organic compounds

HAP = hazardous air pollutants

TPY = tons per year

**TABLE 11**
**MAXIMUM ANNUAL VOC EMISSIONS, VERTREL VAPOR DEGREASER (EU 078)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Product Name | VOC Content[a] (lb/gal) | Annual Activity[b] (gal/yr) | Annual VOC Emissions (TPY) |
|---|---|---|---|
| Vertrel MCA | 11.8 | 2,230 | 13.16 |
| Vertrel KCD-9576 (product booster)[c] | 10.6 | 2,230 | NA |

Footnotes:

[a] VOC content based on an assumption that the material VOC content is 100%. Note product does not contain HAPs.

[b] Annual activity based on permit limit as described in Permit No. 0990021-006-AV.

[c] Although Ventrel KCD-9576 is used as an additive to the Ventrel MCA product, potential annual VOC emissions have been calculated using Ventrel MCA only, based on its higher VOC content.

VOC = volatile organic compounds

TPY = tons per year

**TABLE 12**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, JP-8 FUELED JET ENGINE TEST STAND (EU 069)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| | Activity Factor | | Emission Factor[b] | Emissions | |
|---|---|---|---|---|---|
| Pollutant | Hourly[a] (MMBtu/hr) | Annual[a] (MMBtu/yr) | (lb/MMBtu) | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides (NOx) | 186.30 | 1,632,000 | 3.2 | 596.16 | 2611.20 |
| Carbon Monoxide (CO) | 186.30 | 1,632,000 | 0.850 | 158.36 | 693.60 |
| Particulate Matter (PM) | 186.30 | 1,632,000 | 0.10 | 18.63 | 81.60 |
| Particulate Matter <10 microns (PM10) | 186.30 | 1,632,000 | 0.0496 | 9.24 | 40.47 |
| Sulfur Dioxide (SO2) | 186.30 | 1,632,000 | 0.5000 | 93.15 | 408.00 |
| Volatile Organic Compounds (VOC) | 186.30 | 1,632,000 | 0.0900 | 16.77 | 73.44 |
| Total HAPs[c] | 186.11 | 1,632,000 | 0.00279 | 0.52 | 2.28 |

Footnotes:

[a] Annual activity factor based on an assumed kersone heating value of 136,000 Btu/gal and a maximum annual JP-8 usage of 12 million gallons per year and Sulfur content of 0.5 percent

[b] Emission factors are based on EPA's AP-42, Chapter 3.4, Table 3.4-1.

[c] Total maximum annual Hap emissions based on Propylene with the highest emission factor of 2.79 E-03

lb/hr = pounds per hour
TPY = tons per year

**TABLE 13**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, HEAT TREATMENT FURNACES (EU 040)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| Pollutant | Activity Factor | | Emission Factor[b] (lb/MMscf) | Emissions | |
|---|---|---|---|---|---|
| | Hourly[a] (MMScf/hr) | Annual[a] (MMscf/yr) | | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides (NOx) | 0.0114 | 100.1 | 100.0 | 1.14 | 5.0 |
| Carbon Monoxide (CO) | 0.0114 | 100.1 | 84.0 | 0.96 | 4.2 |
| Particulate Matter (PM) | 0.0114 | 100.1 | 7.6 | 0.087 | 0.38 |
| Particulate Matter <10 microns (PM10) | 0.0114 | 100.1 | 7.6 | 0.087 | 0.38 |
| Sulfur Dioxide (SO2) | 0.0114 | 100.1 | 0.6 | 0.0069 | 0.030 |
| Volatile Organic Compounds (VOC) | 0.0114 | 100.1 | 5.5 | 0.063 | 0.275 |
| Total HAPs | 0.0114 | 100.1 | 1.8 | 0.021 | 0.090 |

Footnotes:

[a] Annual activity factor based on an assumed natural gas heating value of 1,050 British thermal units per cubic feet of natural gas burned and a maximum heat input rate of 12 MMBtu/hr. Hourly activity factor based on operating 8,760 hours per year.

[b] Emission factors are based on EPA's AP-42, Chapter 1.4, Table 1.4-1 and Table 1.4-2.

[c] Total maximum annual HAPs emissions based on Hexane with the highest emission factor of 1.8 lb/106 scf, AP-42 Table 1.4-3

lb/hr = pounds per hour

TPY = tons per year

MMscf= million standard cubic feet

**TABLE 14**
**MAXIMUM HOURLY AND ANNUAL EMISSIONS, FUEL AND AIR HEATERS (EU 059)**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| | Activity Factor | | Emission Factor[b] | Emissions | |
|---|---|---|---|---|---|
| Pollutant | Hourly[a] (MMscf/hr) | Annual[a] (MMscf/yr) | (lb/MMscf) | Hourly (lb/hr) | Annual (TPY) |
| Nitrogen Oxides (NOx) | 0.0592 | 518.5 | 100.0 | 5.92 | 25.9 |
| Carbon Monoxide (CO) | 0.0592 | 518.5 | 84.0 | 4.97 | 21.8 |
| Particulate Matter (PM) | 0.0592 | 518.5 | 7.6 | 0.450 | 1.97 |
| Particulate Matter <10 microns (PM10) | 0.0592 | 518.5 | 7.6 | 0.450 | 1.97 |
| Sulfur Dioxide (SO2) | 0.0592 | 518.5 | 0.6 | 0.0355 | 0.156 |
| Volatile Organic Compounds (VOC) | 0.0592 | 518.5 | 5.5 | 0.326 | 1.426 |
| Total HAPs | 0.0592 | 518.5 | 1.8 | 0.107 | 0.467 |

Footnotes:

[a] Annual activity factor based on an assumed natural gas heating value of 1,050 British thermal units per standard cubic feet of natural gas burned and a maximum heat input rate of 12 MMBtu/hr. Hourly activity factor based on operating 8,760 hours per year.

[b] Emission factors are based on EPA's AP-42, Chapter 1.4, Table 1.4-1 and Table 1.4-2.

[c] Total maximum annual HAPs emissions based on Hexane with the highest emission factor of 1.8 lb/106 scf, AP-42 Table 1.4-3

lb/hr = pounds per hour

TPY = tons per year

MMscf= million standard cubic feet

**TABLE 15**
**MAXIMUM FACILTY-WIDE HOURLY EMISSIONS**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| EU ID No. | EU Description | R/U | Reference | Average Hourly Emissions (lb/hr) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | $NO_x$ | CO | PM | $PM_{10}$ | $SO_2$ | VOC | HAP |
| 016 | Boiler BO-12-E6 | R | Table 1 | 3.98 | 3.34 | 0.30 | 0.30 | 0.02 | 0.22 | 0.07 |
| 022 | Boiler BO-1-MBH and Boiler BO-2-MBH | R | Table 2 | 10.29 | 8.64 | 0.78 | 0.78 | 0.06 | 0.57 | 0.19 |
| 066 | Boiler BO-14-E8 | R | Table 3 | 0.95 | 0.55 | 0.051 | 0.051 | 0.00037 | 0.07 | 0.13 |
| | Boiler BO-4-SIK | R | Table 4 | 0.28 | 0.23 | 0.09 | 0.02 | 0.00 | 0.02 | 0.28 |
| 068 | Emergency Electrical Generators (8) | R | Table 5 | 1,162.80 | 232.56 | 75.89 | 75.89 | 70.99 | 85.68 | 0.44 |
| 069 | JP-8 Fueled Jet Engine Test Stands | U | Table 12 | 596.16 | 158.36 | 18.63 | 9.24 | 93.15 | 16.77 | 0.52 |
| 077 | Natural Gas-Fired Combustion Turbine Test Stands | R | Table 6 | 104.16 | 26.69 | 1.53 | 0.62 | 1.11 | NA | 0.04 |
| 014 | Paint Spray Booth PS-1-TMC | R | Table 7 | NA | NA | NA | NA | NA | NA | 0.00 |
| 064 | Paint Spray Booth PSB-1-RTF | R | Table 8 | NA | NA | NA | NA | NA | NA | 0.00 |
| | Paint Spray Booth PS-14-SIK | R | Table 9 | NA | NA | NA | NA | NA | NA | 0.00 |
| | Paint Spray Booth PS-16-SIK | R | Table 10 | NA | NA | NA | NA | NA | NA | 0.00 |
| 078 | Vertrel Vapor Degreaser | R | Table 11 | NA | NA | NA | NA | NA | NA | NA |
| 040 | Heat Treatment Furnaces | U | Table 13 | 1.14 | 0.96 | 0.09 | 0.09 | 0.01 | 0.06 | 0.02 |
| 059 | Air and Fuel Heaters | U | Table 14 | 5.92 | 4.97 | 0.45 | 0.45 | 0.04 | 0.33 | 0.11 |
| 012 | Jet fuel storage tank F-8-CFF | R | TANKS 4.0.9d | NA | NA | NA | NA | NA | NA | NA |
| | TOTAL | | | 1,885.7 | 436.3 | 97.8 | 87.4 | 165.4 | 103.7 | 1.8 |

Notes: lb/hr = pounds per hour
R/U = regulated/unregulated

**TABLE 16**
**ESTIMATED FACILTY-WIDE ANNUAL EMISSIONS**
**UTC/PRATT & WHITNEY/SIKORSKY AIRCRAFT, WEST PALM BEACH, FLORIDA**

| EU ID No. | EU Description | R/U | Reference | Annual Emissions (TPY) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | $NO_x$ | CO | PM | $PM_{10}$ | $SO_2$ | VOC | Total HAP |
| 016 | Boiler BO-12-E6 | R | Table 1 | 17.44 | 14.65 | 1.33 | 1.33 | 0.10 | 0.96 | 0.31 |
| 022 | Boiler BO-2-MBH and Boiler BO-2-MBH | R | Table 2 | 45.05 | 37.84 | 3.42 | 3.42 | 0.27 | 2.48 | 0.81 |
| 066 | Boiler BO-14-E8 | R | Table 3 | 4.17 | 2.41 | 0.22 | 0.22 | 0.0016 | 0.32 | 0.58 |
| | Boiler BO-4-SIK | R | Table 4 | 1.22 | 1.03 | 0.09 | 0.09 | 0.0073 | 0.07 | 0.02 |
| 068 | Emergency Electrical Generators | R | Table 5 | 231.98 | 46.40 | 15.14 | 15.14 | 14.16 | 17.09 | 0.09 |
| 069 | Jet Engine Test Stands | U | Table 12 | 2,611.20 | 693.60 | 81.60 | 18.63 | 408.00 | 73.44 | 2.28 |
| 077 | Natural Gas-Fired Combustion Turbine Test Stands | R | Table 6 | 166.66 | 42.71 | 2.45 | 0.99 | 1.77 | 1.09 | 0.07 |
| 014 | Paint Spray Booth PS-1-TMC | R | Table 7 | NA | NA | NA | NA | NA | 11.50 | 2.51 |
| 064 | Paint Spray Booth PSB-1-RTF | R | Table 8 | NA | NA | NA | NA | NA | 2.84 | 4.74 |
| | Paint Spray Booth PS-14-SIK | R | Table 9 | NA | NA | NA | NA | NA | 2.10 | 2.10 |
| | Paint Spray Booth PS-16-SIK | R | Table 10 | NA | NA | NA | NA | NA | 7.53 | 7.53 |
| 078 | Vertrel Vapor Degreaser | R | Table 11 | NA | NA | NA | NA | NA | 13.16 | NA |
| 040 | Heat Treatment Furnances | U | Table 13 | 5.01 | 4.20 | 0.38 | 0.38 | 0.03 | 0.28 | 0.09 |
| 059 | Air and Fuel Heaters | U | Table 14 | 25.93 | 21.78 | 1.97 | 1.97 | 0.16 | 1.43 | 0.47 |
| 012 | Jet fuel storage tank F-8-CFF | R | TANKS 4.0.9d | NA | NA | NA | NA | NA | 0.013 | NA |
| | TOTAL | | | 3108.6 | 864.6 | 106.6 | 42.2 | 424.5 | 134.3 | 21.6 |

Notes: TPY = tons per year
R/U = regulated/unregulated

## 5.2 `Regulatory Applicability

*Halogenated solvent vapor cleaning machines subject to NESHAP Subpart T* - At the time the current Title V Air Operation Permit was issued, trichloroethylene was still used in two vapor cleaning machines (EU006 and EU024) subject to this NESHAP. As of November 8, 2002, both of these halogenated vapor cleaners have been closed and demolished. Trichloroethylene is no longer used for any parts cleaning at the facility, therefore, there are no emission units subject to 40 CFR 63, *Subpart* T.

*Aerospace manufacture and rework activities subject to NESHAP, Subpart GG* - This facility operates the following sources subject to this NESHAP: hand-wipe cleaning operations; spray gun cleaning operations; flush cleaning operations; primer and topcoat application operations; and waste storage and handling operations. Currently, the facility uses only specialty coatings which are not covered by the coating control requirements of the NESHAP. This facility does not have any depainting or Type I, II chemical milling maskant operations. There are three flush cleaning operations that have switched from trichloroethylene to Vertrel (non HAP solvent), in addition they are completely closed-loop systems. Jet engine manufacturing ceased in 2000 after the transfer of those operations and associated equipment to Connecticut. Because these emission units process clean space vehicle engines and tubes, Subpart GG does not apply.

*Fuel storage tanks subject to NSPS, Subpart Kb* - In the original Title V permit there were three existing fuel storage tanks subject only to the record keeping requirements (tank size and liquid vapor pressure) of this NESHAP. Recent changes in Subpart Kb, have eliminated these recordkeeping requirements for tanks with this capacity. There are no emission units subject to 40 CFR 60, Subpart Kb.

*Small boilers subject to a BACT determination* - Rule 62-296.406, F.A.C. requires a BACT determination for particulate matter and sulfur dioxide for boilers with a heat input of less than 250 MMBtu/hr. The facility operates four boilers with heat inputs of 54 MMBtu/hr, 42 MMBtu/hr, 7 MMBtu/hr, and 2.93 MMBtu/hr. The Department has determined that BACT for these small sources will be the use of natural gas or propane. Records are required for the fuel consumption. An annual visible emissions test is not required when the facility documents exclusive use of pipeline quality natural gas or commercial grade propane.

*Emergency electrical generating station subject to NOx RACT, and 40 CFR 63 Subpart ZZZZ "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"* - The facility operates an emergency electrical generating station to provide minimal electrical power needs in the event of a power outage. This station consists of 16 identical diesel engines with a pair of engines powering a single generator. These engines are currently subject to Rule 62-296.570, F.A.C., major source NOx RACT. Information form the manufacturer indicates that these engines are capable of complying with this regulation. Because these engines are only operated for emergency purposes and monthly testing, this rule requires no testing unless an engine operates 400 hours or more in any 12 month period. Pursuant to regulations finalized on March 03, 2010, these emission units are subject to 40 CFR part 63 subpart ZZZZ.

*Miscellaneous spray booths* - The facility operates four spray/fume control booths used to refinish support equipment, apply adhesives to wood laminate models, and coat nonproduction prototype parts. Each booth has been through a preconstruction review and has a limit on the amount of VOC usage. Compliance is demonstrated by record keeping coating, thinner, cleaner, and adhesive usage. The recently promulgated 40 CFR 63, Subpart MMMM - National Emission Standards for Hazardous Air Pollutants for Surface Coating Operations of Miscellaneous Metal Parts and Products are not applicable to research facilities or to facilities subject to Subpart GG National Emission Standards for Hazardous Air Pollutants for aerospace manufacturing and rework facilities.

*Jet engine test stands* - Also included as an "unregulated" emissions unit are ten existing jet engine test stands. 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:

- The Department would not require air pollution permits for the individual test stands nor the relocatable jet engines.
- The Department would not specify conditions in other permits that would affect the scheduling or utilization of individual test stands or relocatable jet engines.
- The Department would require the permittee to report jet fuel consumption on a facility-wide basis. The main concern at this time was reporting an accurate emissions inventory for tracking "reasonable further progress" towards attainment of the ozone standard.

However, recent guidance from the EPA (listed below) indicates that jet engine test stands are considered stationary sources of air pollution.

12-31-95: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells

03-12-96: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells

09-23-96: EPA-APT to Mr. John R. McDowell, PE: Title V Applicability Issues Related to the Cincinnati/Northern Kentucky International Airport

Therefore, the Health Department established the jet engine test stands as existing, “unregulated” stationary emissions units with no limits on operation.

On December 4, 2001, the Health Department issued construction permit 0990021-005-AC for the modification of the existing combustion turbine test stands. The applicant proposed to conduct both Research and Development (R&D) and Quality Assurance/Quality Control (QA/QC) activities on its stationary combustion turbine product line while firing natural gas and/or distillate oil. The applicant requested that the construction permit contain a federally-enforceable cap on emissions from the modified activities at levels below those that would trigger a major modification under Rule 62-212.400, F.A.C. The permit contains two emission limits; 39.9 tons per year for NOx and 99.9 tons per year for CO, as well as natural gas usage limit corresponding to these emissions levels.

The Health Department, in reviewing the project also concluded that those test stands not undergoing an expansion of the natural gas firing or distillate oil firing capacities would remain unchanged and unregulated. Based on discussions with the DEP, it was concluded that the R&D and QA/QC activities would not be subject to Rule 62-296.570, F.A.C. - state emission standards for gas turbines located at major NOx sources within Palm Beach County, Compliance with the emission caps will be demonstrated through a emissions inventory and record keeping system. The emissions inventory will be supported by historical Pratt & Whitney emissions data obtain through R&D and QA/QC activities. The data will be subject to a Quality Assurance Plan (QAP) that will be implemented once actual emissions equal or exceed eighty (80) percent of the emission caps.

The emissions unit has been identified as a Source Category potentially subject to the National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands (40 CFR Part 63, Subpart PPPPP). In accordance with 40 CFR 63.9290 (d) of this Subpart, any portion of the affected source used exclusively for testing rocket engines is not subject to requirements of Subpart PPPPP or subpart A of Part 63. 40 CFR 63.9290(d)(1) also exempts the test stands that are used exclusively for testing the combustion turbine engines.

*Two JP8 fired Turbine Engines:* Permit No. 090021-012-AC was issued on 11/17/2008 to modify the permit for turbine engines. The operating hours of these engines are restricted to 375 hrs each per year. The potential emissions of NOx and CO from these engines are estimated to be 36.7 and 42.5 tons per year respectively. These modification of these engines remain as a minor modification under PSD regulations since the project’s maximum increase in criteria pollutant emissions for CO and NOx will remain below 100 and 40 tons per year, which are the PSD significant emission rate.

*Single Chrome Conversion Tank:* This tank is located at Sikorsky site and is subject to 40 CFR Part 63 Subpart WWWWWW "*National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations.*"

5.3 Reasonable Assurance

Based on the fuel (Methane) consumption limit, the application provided a reasonable assurance that this project will stay below the PSD significant emission rates and avoids the PSD new source review.

## 6.0 CONCLUSION

Based on the information provided by the applicant, the Health Department believes that there is reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions in the proposed draft permit, will not:

- Discharge, emit, or cause pollution in contravention of DEP standards or rules. **[Rule 62-4.070(1), F.A.C.]**
- Cause or contribute to a violation of any air quality standard of the Florida Administrative Code. **[Rule 62-212.300(1), F.A.C.]**
- Interfere with reasonable further progress toward maintaining the ambient air quality standards. **[Rule 62-212.500(1), F.A.C.]**

Therefore, the Health Department intends to issue the Draft Permit with the given specific conditions.