

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Rick Scott
Governor

John H. Armstrong, MD, FACS
State Surgeon General & Secretary

Vision: To be the Healthiest State in the Nation

NOVEMBER 21, 2013

ELECTRONIC CORRESPONDENCE

michael.oneill@pw.utc.com

NOTICE OF PERMIT

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

Air Permit No.: 0990021-035-AC
Project: Construction Permit Modification
PALM BEACH COUNTY, FLORIDA

Authorized Representative:

Michael O'Neill, Manager
Assembly, Instrumentation & Test Operations
United Technologies Corporation (UTC)

Dear Mr. O'Neill:

Enclosed is the above referenced air pollution construction permit to perform the proposed work on a source of air pollution located in Palm Beach County. The purpose of this permit is to modify the UTC's permit by removing those emissions units that are sold. This permit modifies the permit no. 0990021-020-AC, and also incorporates the conditions of constructions permits 0990021-028-AC, 0990021-031-AC, 0990021-032-AC, and 0990021-033-AC.

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 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.).

This permit is issued pursuant to Chapter 403.087 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code. Any party to this order (permit) has the right to seek judicial review of it pursuant to Section 120.68, F.S., by filing a notice of appeal pursuant to Rule 9.110 of the Florida Rules of Appellate Procedure with: the legal office of the Department of Health Palm Beach County at P.O. Box 29 (800 Clematis Street), West Palm Beach, Florida 33402-0029; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days after this order (permit) is filed with the clerk of the Health Department.

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

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

Florida Department of Health

Palm Beach County, Division of Environmental Public Health
P.O. Box 29, 800 Clematis Street, West Palm Beach, FL 33402
PHONE: 561-837-5900 • FAX: 561-837-5294

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FACEBOOK: FLDepartmentofHealth

YOUTUBE: fldoh

FINAL DETERMINATION

**United Technologies Corporation
Air Permit No. 0990021-035-AC**

Permittee:

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

Authorized Representative: Michael O'Neill, Manager
Assembly, Instrumentation & Test Operations

Project: The purpose of this permit is to modify the UTC's permit by removing those emissions units that are sold. This permit modifies the permit no. 0990021-020-AC, and also incorporates the conditions of constructions permits 0990021-028-AC, 0990021-031-AC, 0990021-032-AC, and 0990021-033-AC.

Location: 17900 Beeline Highway (SR 710), Jupiter, Palm Beach County

UTM: Zone 17; 564.9 km E; 2977.3 km N; **Latitude:** 26° 54' 59" North / **Longitude:** 80° 20' 47" West

Comments and Revisions

The Health Department issued the draft permit along with the intent to issue on July 23, 2013, and the REVISED draft permit was issued on October 10, 2013. The Health Department received proof of publication on November 15, 2013 that the required PUBLIC NOTICE was published in the November 06, 2013 issue of The Palm Beach Post Newspaper. No comments were made by the general public, facility, or the Florida Department of Environmental Protection.

FINAL ACTION

The final action of the Health Department is to issue the air pollution construction permit as proposed.

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NOVEMBER 21, 2013

Electronic Correspondence

michael.oneill@pw.utc.com

ISSUED TO (PERMITTEE):

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

Authorized Representative:

Michael O'Neill, Manager
Assembly, Instrumentation & Test Operations

ARMS No.	0990021
Air Permit No.	0990021-035-AC
Issued:	November 21, 2013
Expires:	November 20, 2018

LOCATED AT:

Project Name: United Technologies Corporation (UTC) sold the rocket operations to Aerojet. The purpose of this permit is to modify the UTC's permit by removing those emissions units that are sold. This permit modifies the permit no. 0990021-020-AC, and also incorporates the conditions of constructions permits 0990021-028-AC, 0990021-031-AC, 0990021-032-AC, and 0990021-033-AC.

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 Department of Health Palm Beach County (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
DEPARTMENT OF HEALTH PALM BEACH COUNTY

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

Florida Department of Health

Palm Beach County, Division of Environmental Public Health
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SECTION II. FACILITY-WIDE GENERAL CONDITIONS**PERMIT HISTORY**

06/13/2013	Health Department received application for concurrent construction permit/Title V permit revision
07/23/2013	Health Department issued the DRAFT permit
10/10/2013	Health Department issued the REVISED Draft permit
11/06/2013	Public Notice published in The Palm Beach Post newspaper

FACILITY DESCRIPTION

Pratt & Whitney (P&W), a division of United Technologies Corporation (UTC); Sikorsky Aircraft Corporation (SAC), a subsidiary of UTC; and Fire Innovation Test (FIT) Center; operate adjacent facilities located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney West Palm Beach is the company's principal jet engine test 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. Jet engines are tested for research and development programs. No jet engine manufacturing is performed at West Palm Beach.

Health Department issued a Title V air operation permit to P&W on July 17, 2004 (FDEP Permit No. 0990021-006-AV), and the facility was designated as a major source of criteria pollutants, including nitrogen oxides (NO_x), volatile organic compounds (VOCs), and carbon monoxide (CO).

SAC, which is located on the same campus but in wholly separate buildings, operates the Development Flight Center (DFC), which is the company's site for helicopter development testing. SAC also operates the Florida Assembly Flight Operation (FAFO), which assembles helicopters from parts delivered to the facility (in space rented from P&W). 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).

Pursuant to permit nos. 0990021-013-AV, issued on February 03, 2011, P&W and SAC were combined into one permit.

The Fire, Innovation & Testing (FIT) center began operations on February 15, 2012 at UTC campus. The FIT center is intended to provide UTC Fire & Security (UTCFS) the ability to test current and future fire suppression products. The Health Department issued an air construction permit no. 0990021-027-AC in December 2010 for this project. Indoor fire testing is performed in an approximately 70 ft x 70 ft enclosed building with a 50 ft high ceiling. The test fuel packages will consist of variety of materials such as wood, plastics, heptane, fuel oil (Number 2), vegetable oil, isopropyl alcohol, acetone, methane, propane, and other hydrocarbon fuels.

The air emissions from indoor testing at the FIT center will be controlled by two parallel Ultra High Efficiency Filter (UHF®) trains. Exhaust gases from test fires shall be transferred via two ducts which contain water spray nozzles to cool the gases in two parallel trains. Each train includes two UHF units in series where the contaminants are removed from the exhaust gas stream by the filter media. The maximum anticipated flow rate is 100,000 ACFM from the test hall. This scrubber is used to reduce smoke and other air pollutants. Emission calculations conservatively assume no removal efficiency for pollutants – other than for particulate matter – emitted from the test hall. The facility also performs limited outdoor burning to test and quality the fire suppression products including firefighting foams and portable fire extinguishers. The outdoor burning is regulated according to Rules 62-296.320(3), 62-256.300, F.A.C.

The Title V permit revision (0990021-029-AV) was issued on January 30, 2013 that included the FIT center in UTC's Title V permit.

Based on the permit application received on 06/13/2013, this facility is **not** a major source of hazardous air pollutants (HAPs).

PROJECT DESCRIPTION

UTC sold its Rocketdyne operations to Aerojet. The purpose of this permit is to remove the units that are sold. These emissions units include 015, 016, 018, 040, 066, and 080.

SECTION II. FACILITY-WIDE GENERAL CONDITIONS

FOLLOWING IS THE LIST OF EMISSION UNITS AT THE FACILITY.

EU No.	R / U*/I**	Brief Description
<i>Following emission units are located at Pratt & Whitney Rocketdyne (except as noted)</i>		
009	U	Diesel storage tanks
010	U	Jet fuel storage tanks
012	U	Jet fuel storage tank (F-8-CFF)
014	R	Paint spray booth (PS-1-TMC) used for refinishing support equipment
015	I	Closed-loop flush cleaning (BF-1-RL-10) using Vertrel MCA <i>[This emissions unit is sold and is removed from this permit per applicants' request]</i>
016	I	Boiler (BO-12-E6) fired by natural gas – 42 MMBTU/hr Heat Input <i>[This emissions unit is sold and is removed from this permit per applicants' request]</i>
018	I	Acid gas scrubbing system (AS-2-MPL) for plating operations <i>[This emissions unit is sold and is removed from this permit per applicants' request]</i>
022	I	Boilers (BO-1-MBH, BO-2-MBH) fired by natural gas – 54 MMBTU/hr Heat Input per Boiler. <i>[This EU is demolished and is removed per applicant's request]</i>
031	U	Diesel storage tanks (DL-19-SEGF and DL-20-SEGF)
037	U	AST Gasoline storage tanks
040	I	Heat treatment furnaces (FU-3-MHT and FU-4-MHT) fired by natural gas <i>[This emissions unit is sold and is removed from this permit per applicants' request]</i>
045	U	Water evaporator (EV-1-MW)
049	U	Plasma spray booths
059	U	Air and fuel heaters fired with natural gas
064	R	Paint spray booth (PSB-1-RTF)
065	U	Diesel engines powering fire protection pumps and cooling water pumps during rocket engine testing and emergency electrical generators
066	I	Boiler (BO-14-E8) fired by propane subject – 6.7 MMBTU/Hr Heat Input <i>[This emissions unit is sold and is removed from this permit per applicants' request]</i>
068	I	Emergency electrical generating facility <i>*The emissions Unit (EU 068) is split into different emissions units – one for each engine. Originally, these emissions unit consisted of 8 generators (2 engines per each generator). But, one of the generators is shut down indefinitely. Hence, 14 new EUs are created for 14 engines (7 generators).</i>
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 (PS – 2 – MM)
074	U	Aerospace waste storage and handling operations
077	R	Combustion turbine test stands – Fired by Natural Gas
078	I	Vertrel Vapor Degreaser <i>[This EU is demolished and is removed per applicant's request]</i>
079	R	Two JP8 fired Turbine Engines powering air compressors used for jet engine tests (also known as RAM Test Facility)
080	I	E-8 Rocket Engine Test Stand – Methane Fuel Operations <i>[This emissions unit is sold and is removed from this permit per applicants' request]</i>
088	U	Engine Parts Coating Process
089	U	Hot Acoustic Rig (HAR) at Test Stand B-6.

SECTION II. FACILITY-WIDE GENERAL CONDITIONS

EU No.	R / U*/I**	Brief Description
		The HAR utilizes propane, air and water in evaluating design and performance of aircraft components at the B-6 test area. The EU consists of two propane burners, three propane storage tanks, with a capacity of 1000 gallons each. SCC # 1-02-010-02: 1000 gallons of propane burned
090	R	FT4000 Gas Turbine Testing at Test Stand A4
091	R	FT4000 Compressor Reciprocating Internal Combustion Engine (RICE)
092	R	2100 hp Detroit Diesel Engine (Generator 1A) , Engine Model 91637416, Serial Number 16E0009430.
093	R	2100 hp Detroit Diesel Engine (Generator 1B) Engine Model 91633416, Serial Number 16E0009909.
094	R	2100 hp Detroit Diesel Engine (Generator 2A) Engine Model 91637416, Serial Number 16E0009404.
095	R	2100 hp Detroit Diesel Engine (Generator 2B) Engine Model 91633416, Serial Number 16E0009908.
096	R	2100 hp Detroit Diesel Engine (Generator 3A) Engine Model 91637416, Serial Number 16E0009427.
097	R	2100 hp Detroit Diesel Engine (Generator 3B) Engine Model 91633416, Serial Number 16E0009907.
098	R	2100 hp Detroit Diesel Engine (Generator 4A) Engine Model 91637416, Serial Number 16E0009403.
099	R	2100 hp Detroit Diesel Engine (Generator 4B) Engine Model 91633416, Serial Number 16E0009896.
100	R	2100 hp Detroit Diesel Engine (Generator 5A) Engine Model 91637416, Serial Number 16E0009402.
101	R	2100 hp Detroit Diesel Engine (Generator 5B) Engine Model 91633416, Serial Number 16E0009897.
102	R	2100 hp Detroit Diesel Engine (Generator 6A) Engine Model 91637416, Serial Number 16E0009401.
103	R	2100 hp Detroit Diesel Engine (Generator 6B) Engine Model 91633416, Serial Number 16E0009895.
104	R	2100 hp Detroit Diesel Engine (Generator 7A) Engine Model 91637416, Serial Number 16E0009397.
105	R	2100 hp Detroit Diesel Engine (Generator 7B) Engine Model 91633416, Serial Number 16E0009894.
Following emission units are located at Sikorsky Aircraft Corporation		
081	R	SYK - Spray Booth (PS-14-SIK) for aerospace coating operations [Previously EU 006 in Sikorsky permit]
082	R	SYK - Spray Booth (PS-16-SIK) for aerospace coating operations [Previously EU 008 in Sikorsky permit]
083	R	SYK - Boiler (BO-4-SIK)] fired by natural gas– 2.93 MMBTU/Hr Heat Input [Previously EU 009 in Sikorsky permit]
084	U	Alodine tank – about 10 gallon capacity
Following emission unit is used to track VOC emissions from miscellaneous activities at P&W and Sikorsky		
085	U	Miscellaneous VOC/HAP Emissions Sources
Following emission units are located at the FIT Center		
086	R	Fire Innovation and Test Center
087	R	810 KW Diesel Generator

* (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 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 facility 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 Rules.
- 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 painting and stripping operations are subject to the requirements of **40 CFR Part 63 Subpart HHHHHH**, "National Emission Standard for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources."
 - Pratt & Whitney (P&W) was at one time subject to the 40 CFR Part 63- Subpart GG (Aerospace MACT). Emission units that were subject to Subpart GG have been removed from the facility or transferred to other operations outside the West Palm Beach facility.

PERMIT CONTENT

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

Appendices

<i>Appendix A:</i>	General Permit Conditions
<i>Appendix B:</i>	Abbreviations, Acronyms, Citations, and Identification Numbers (Version dated 02/05/97)
<i>Appendix C:</i>	Summary of Testing Requirements
<i>D</i>	AIR POLLUTANT EMISSIONS FACTORS FOR DIFFERENT MATERIALS – FIT Center
<i>E</i>	Compliance Procedures for FIT Center
<i>F</i>	EMISSIONS FACTORS FOR NOX and CO AT VARIOUS LOADS DURING TESTING OF FT4000 GAS TURBINES (EU 090)
Appendix HHHHHH	National Emission Standard for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

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 and Waste Section of the Department of Health Palm Beach County (Health Department) at P.O. Box 29 (800 Clematis 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, 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, and Permit No. 0990021-020-AC]

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 and hydrogen fuel. However, neither distillate fuel nor its components are among the regulated substances listed in Section (r)(b) of CAA (40 CFR 68.130). Hydrogen when used as a fuel is also not among regulated substances. 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

SECTION II. FACILITY-WIDE GENERAL CONDITIONS

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.]

- 2.7 **40 CFR Part 63 Subpart HHHHHH**: The operation of those emissions units that are subject to 40 CFR 63 Subpart HHHHHH "*National Emission Standard for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources*" shall comply with the conditions specified in Appendix HHHHHH. **[40 CFR 63 Subpart HHHHHH]**

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 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 5 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

SECTION II. FACILITY-WIDE GENERAL CONDITIONS

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 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 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.

The permittee shall maintain and record the following information.

- a. The individual and total HAP fraction for each solvent/coating material that contains or emits HAPs. If the HAP content is provided by the material supplier or manufacturer as a range, then the permittee must use the upper limit of the range for determining compliance.
- b. The solvent utilization on a monthly basis for all solvents that contain or emit HAPs.

SECTION II. FACILITY-WIDE GENERAL CONDITIONS

- c. **The individual and total monthly HAP emissions for each material, calculated from the monthly material utilization and the individual and total HAP fraction, calculated for the preceding month no later than 10 days after the end of that month.**
 - d. **For fuel burning units, the monthly emissions of individual HAP and total HAPs shall be estimated based on the monthly fuel usage; and the emissions factor provided by the manufacturer or AP-42 *"Compilation of Air Pollutant Emission Factors."***
 - e. **Using the monthly totals computed in subsection (d) above, rolling consecutive 12-month total emissions for individual and total HAPs for the entire facility shall be calculated for the previous twelve calendar months.**
- [Permit No. 0990021-020-AC]**

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	<p>Miscellaneous diesel storage tanks located throughout the facility, including SAC diesel storage tanks: <u>SCC #4-03-010-19</u>: diesel, breathing loss; <u>SCC #4-03-010-21</u>: diesel, working loss</p> <p><i>{Permitting Note: The total storage capacity for this group of tanks is 14,685 gallons.}</i></p> <table border="0"> <tr> <td>(DL-1AFP): 540 gallon diesel tank</td> <td>(DL-2-MMG): 1000 gallon diesel tank</td> </tr> <tr> <td>(DL-1- MFP): 250 gallon diesel tank</td> <td>(DL-23-TAB): 5000 gallon diesel tank</td> </tr> <tr> <td>(DL-1- MMG): 150 gallon diesel tank</td> <td>(DL-1-TABG): 50 gallon diesel tank</td> </tr> <tr> <td>(DL-5-SIKTFP): 250 gallon diesel tank</td> <td>(DL-1-RSG): 50 gallon diesel tank</td> </tr> <tr> <td>(DL-7-CFP): 350 gallon diesel tank</td> <td>(DL-24-RTFG): 1000 gallon diesel tank</td> </tr> <tr> <td>(DL-8-ESFP): 550 gallon diesel tank</td> <td>(DL-1-PH1SIK): 150 gallon diesel tank</td> </tr> <tr> <td>(DL-10-ENFP): 1000 gallon diesel tank</td> <td>(DL-1-PH2SIK): 150 gallon diesel tank</td> </tr> <tr> <td>(DL-16-C11FP): 250 gallon diesel tank</td> <td>(DL-2-PH2SIK): 150 gallon diesel tank</td> </tr> <tr> <td>(DL-18-C14FP): 300 gallon diesel tank</td> <td>(DL-1-PSTBSIK): 150 gallon diesel tank</td> </tr> <tr> <td>(DL-22-RTF): 350 gallon diesel tank</td> <td>(DL-2-PSTBSIK): 150 gallon diesel tank</td> </tr> <tr> <td>(DL-21-C14G): 50 gallon diesel tank</td> <td>(DL-1-B3ASIK): 295 gallon diesel tank</td> </tr> </table>	(DL-1AFP): 540 gallon diesel tank	(DL-2-MMG): 1000 gallon diesel tank	(DL-1- MFP): 250 gallon diesel tank	(DL-23-TAB): 5000 gallon diesel tank	(DL-1- MMG): 150 gallon diesel tank	(DL-1-TABG): 50 gallon diesel tank	(DL-5-SIKTFP): 250 gallon diesel tank	(DL-1-RSG): 50 gallon diesel tank	(DL-7-CFP): 350 gallon diesel tank	(DL-24-RTFG): 1000 gallon diesel tank	(DL-8-ESFP): 550 gallon diesel tank	(DL-1-PH1SIK): 150 gallon diesel tank	(DL-10-ENFP): 1000 gallon diesel tank	(DL-1-PH2SIK): 150 gallon diesel tank	(DL-16-C11FP): 250 gallon diesel tank	(DL-2-PH2SIK): 150 gallon diesel tank	(DL-18-C14FP): 300 gallon diesel tank	(DL-1-PSTBSIK): 150 gallon diesel tank	(DL-22-RTF): 350 gallon diesel tank	(DL-2-PSTBSIK): 150 gallon diesel tank	(DL-21-C14G): 50 gallon diesel tank	(DL-1-B3ASIK): 295 gallon diesel tank
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(DL-21-C14G): 50 gallon diesel tank	(DL-1-B3ASIK): 295 gallon diesel tank																							
010	U	<p>Miscellaneous jet fuel storage tanks located throughout the facility, including: <u>SCC #4-03-010-16</u>: jet fuel, standing loss; <u>SCC #4-03-010-18</u>: jet fuel, withdrawal loss</p> <p><i>{Permitting Note: The total storage capacity for this group of tanks is 2,232,825 gallons. SAC does not have any stationary jet fuel tanks.}</i></p> <table border="0"> <tr> <td>(F-1-CFF): 1,000,000 gallon jet fuel tank</td> <td>(F-39-C14): 275 gallon jet fuel tank</td> </tr> <tr> <td>(F-3-CFF): 150,000 gallon jet fuel tank</td> <td>(F-40-C12): 275 gallon jet fuel tank</td> </tr> <tr> <td>(F-5-CFF): 1,000,000 gallon jet fuel tank</td> <td>(F-41-D): 8,000 gallon jet fuel tank</td> </tr> <tr> <td>(F-7-A): 10,000 gallon salvage jet fuel tank</td> <td>(F-42-B): 10,000 gallon jet fuel tank</td> </tr> <tr> <td>(F-17-B2): 7,000 gallon jet fuel tank</td> <td>(F-43-B): 10,000 gallon jet fuel tank</td> </tr> <tr> <td>(F-45-A1): 10,000 gallon jet fuel tank</td> <td>(F-44-B): 8,000 gallon jet fuel tank</td> </tr> <tr> <td>(F-35E-BO): 8,000 gallon jet fuel tank</td> <td>(F-46-B): 1,000 gallon jet fuel tank</td> </tr> <tr> <td>(F-37-C11): 275 gallon jet fuel tank</td> <td>(F-28-R): 10,000 gallon jet fuel tank</td> </tr> </table>	(F-1-CFF): 1,000,000 gallon jet fuel tank	(F-39-C14): 275 gallon jet fuel tank	(F-3-CFF): 150,000 gallon jet fuel tank	(F-40-C12): 275 gallon jet fuel tank	(F-5-CFF): 1,000,000 gallon jet fuel tank	(F-41-D): 8,000 gallon jet fuel tank	(F-7-A): 10,000 gallon salvage jet fuel tank	(F-42-B): 10,000 gallon jet fuel tank	(F-17-B2): 7,000 gallon jet fuel tank	(F-43-B): 10,000 gallon jet fuel tank	(F-45-A1): 10,000 gallon jet fuel tank	(F-44-B): 8,000 gallon jet fuel tank	(F-35E-BO): 8,000 gallon jet fuel tank	(F-46-B): 1,000 gallon jet fuel tank	(F-37-C11): 275 gallon jet fuel tank	(F-28-R): 10,000 gallon jet fuel tank						
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012	U	<p>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)</p> <p><u>SCC #4-03-011-13</u>: jet fuel, standing loss; <u>SCC #4-03-001-19</u>: jet fuel, Working loss</p>																						

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

EU No	R / U*	BRIEF DESCRIPTION
015	Inactive	<p>Closed-loop halogenated flush cleaning process (BF-1-RL-10) using Vertrel MCA.</p> <p>Located in the RL-10 /SSME Rocket Assembly Area consisting of back flushing of rocket engines located in Manufacture Area using Vertrel MCA Solvent</p> <p><u>4-01-002-95</u>: Gallons used</p> <p><i>{Permitting Note: Although these cleaning processes use trichloroethylene, a halogenated solvent and regulated volatile organic compound, they are completely closed loop systems. Therefore, the units are not subject to the requirements of the NESHAP, Subpart T, 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".}</i></p> <p><i>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.</i></p> <p><i>[This emissions unit is sold and is removed from the permit per applicants' request]</i></p>
018	Inactive	<p>Acid gas scrubbing system (AS-2-MPL) for Nickel and Silver plating operations located in the Manufacture Area.</p> <p>With an estimated scrubbing efficiency of 98%; Ceilcote Model #VCP-78</p> <p><u>3-01-888-01</u>: tons of product used</p> <p><i>[This emissions unit is sold and is removed from the permit per applicants' request]</i></p>
031	U	<p>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.</p> <p><u>SCC #4-03-010-19</u>: diesel, breathing loss; <u>SCC #4-03-010-21</u>: diesel, working loss</p>
037	U	<p>Tank (GA-1R-TAB): 5,000 gallon gasoline; exempt from NSPS</p> <p><u>SCC #4-04-002-02</u>: gasoline (RVP-10), breathing loss; <u>SCC #4-04-002-05</u>: gasoline (RVP-10), working loss</p>
040	Inactive	<p>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.</p> <p><u>SCC #1-02-006-02</u>: natural gas combustion, 10 - 100 mmBTU per hour</p> <p><i>[This emissions unit is sold and is removed from the permit per applicants' request]</i></p>
045	U	<p>Water evaporator (EV-1-MW) with a heat input rate of 0.2 mmBTU/hour located in the Waste Management Area; SAMSCO Model # 2C820, burns natural gas only.</p> <p><u>SCC #1-02-006-03</u>: natural gas combustion, < 10 mmBTU per hour</p>

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

EU No	R / U*	BRIEF DESCRIPTION
049	U	<p>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.</p> <p>Permit no. 0990021-028-AC was issued (8/1/2012) to relocate and expand the facility's Combustors, Augmentors, and Nozzles (CAN) Operations. Facility also intends to install a jet engine parts coating process. This project will be completed in five phases, as detailed below. After the expansion, the facility will have 12 spray booths. This permit includes EUs #049 and #088.</p> <p>Phase 1 – Relocation of the existing booths: The three existing plasma spray booths (EU # 49) are relocated from their current location at the Manufacturing Building to a different existing building (formerly known as Facilities Maintenance Building). The facility intends to complete this relocation by October, 2012.</p> <p>Phase 2 - Add two new booths: The facility will add two completely new spray booths in the Facilities Maintenance Building. The facility intends to complete the installation of these booths by Oct 2012.</p> <p>Phase 3 - Add three new booths: The facility will add three completely new spray booths (identical to the phase 2 units) in the Facilities Maintenance Building. The facility intends to complete the installation of these booths by Oct 2012.</p> <p>Phase 4 – Add two new booths: The facility will add two completely new spray booths (identical to the phase 2 units) in the Facilities Maintenance Building. The facility intends to complete the installation of these booths in 2014.</p> <p>All the above spray booths will be equipped with new Torit/Sulzer Metco (or equivalent) cartridge style high efficiency particulate filters to control particulate emissions.</p> <p>Phase 5 – Installation of an engine parts coating process in the same building: The facility will install an engine parts coating production line. This process would emit acetone and isopropyl alcohol (IPA) from the vacuum chambers. This process will also include two aqueous parts cleaning units with no air emissions. [Emissions Unit No. 088]</p> <p>SCC # 3-09-040-01: tons of sprayed metal; SCC # 3-09-060-99: tons of material processed</p>
059	U	<p>Miscellaneous fuel and air heaters located in the different Test Areas. These heaters are used to heat JP-8 fuel and/or air for testing jet engine components, and are fired with natural gas only.</p> <p><u>SCC #3-90-006-99</u>: natural gas combustion</p> <p>Air heater (HR-22-D1) with a design heat input rate of 7 mmBTU per hour, Test Area D Air heater (HR-23-D3) with a design heat input rate of 4 mmBTU per hour, Test Area D Air heater (HR-26-D4) with a design heat input rate of 4 mmBTU per hour, Test Area D Air heater (HR-27-D5) with a design heat input rate of 4 mmBTU per hour, Test Area D Air heater (HR-28-D7) with a design heat input rate of 6 mmBTU per hour, Test Area D Air heater (HR-29-A4) with a design heat input rate of 7 mmBTU per hour, Test Area A Air heater (HR-17-D2) with a design heat input rate of 15 mmBTU per hour, Test Area D Fuel heater (HR-1-A9) with a design heat input rate of 16 mmBTU per hour, Test Area A</p>
065	U	<p>Diesel engines at P&W, and SAC, powering emergency equipment including fire protection pumps, backup generators and cooling water pumps during rocket engine testing.</p> <p><u>SCC # 2-04-004-02</u>: Thousand gallons of diesel fuel</p> <p>Equipment listed below:</p>

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

EU No	R / U*	BRIEF DESCRIPTION			
		<u>Equipment</u>	<u>Location</u>	<u>Equipment No</u>	<u>Diesel Tank ID</u>
		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	K-17	CO42502	DL-2-MMG
		Generator	Maintenance	CO51880	DL-1-MMG
		Generator	C Area Training	CO46467	DL-21-C14G
		Generator	Building TAB Generator	CO40336	DL-1-TABG
		Generator	Rocket Support	CO46466	DL-1-RSG
		Generator	Remote Test Facility	CO56179	DL-24-RTFG
		Fire Pump	Pump House 1 – SAC	8VA354125	DL-1-PH1SIK
		Fire Pump	Pump House 2 – SAC	6A-432657	DL-1-PH2SIK
		Fire Pump	Pump House 2 – SAC	6A-433001	DL-2-PH2SIK
		Fire Pump	PTSB1 – SAC	03Z12944	DL-1-PSTBSIK
		Fire Pump	PTSB2 – SAC	PE6068H237993	DL-2-PSTBSIK
		Generator	Building 3A	483504	DL-1-B3ASIK

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

EU No	R / U*	BRIEF DESCRIPTION
069	U	<p>10 existing jet engine test stands, consisting of:</p> <p>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)</p> <p>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)</p> <p>The stands are estimated to operate approximately 10,000 engine hours and consume approximately 12 million gallons of jet fuel.</p> <p><u>SCC # 2-02-009-01</u>: 1000 gallons of jet fuel burned</p> <p><i>{Permitting Note: The jet engine test stands were constructed prior to the PSD baseline date. In the early 1970s, several test stands were issued air pollution "operation" permits, which described the stands and estimated emissions, but did not limit operation. In a January 16, 1980 letter, the Department of Environmental Regulation made the following determination for the existing jet engine test stands:</i></p> <p><i>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.</i></p> <p><i>However, recent guidance from the EPA (listed below) indicates that jet engine test stands are considered to be stationary sources of air pollution.</i></p> <p><u>12-31-95</u>: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells</p> <p><u>03-12-96</u>: EPA-AEB to Georgia Department of Natural Resources: Aerospace Ground Equipment, Hush Houses, and Jet Engine Test Cells</p> <p><u>09-23-96</u>: EPA-APT to Mr. John R. McDowell, PE: Title V Applicability Issues Related to the Cincinnati/Northern Kentucky International Airport</p> <p><i>Therefore, the Health Department establishes the jet engine test stands as existing, "unregulated" stationary emissions units with no limits on operation.}</i></p>
070	U	<p>Aerospace hand-wiping operations:</p> <p>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).</p> <p>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.</p> <p><u>SCC # 4-01-003-98</u>: gallons of solvent consumed</p>

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

EU No	R / U*	BRIEF DESCRIPTION
071	U	<p>Aerospace spray gun cleaning operations subject to NESHAP Subpart GG</p> <p>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).</p> <p>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.</p> <p><u>SCC # 4-02-999-98</u>: gallons of solvent consumed</p>
072	U	<p>Aerospace flush cleaning operations</p> <p>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).</p> <p>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.</p> <p><u>SCC # 4-01-003-98</u>: gallons of solvent consumed</p>
073	U	<p>Aerospace Primer and Topcoat Application</p> <p><i>The paint booth is a standard auto body-type paint booth with panel filters included as an inherent part of the booth.</i></p> <p><u>SCC # 4-02-001-10</u>: gallons used</p> <p>[The permit no. 0990021-022-AC was issued (8/20/2010) for a new paint booth operations at EU # 073]</p>
074	U	<p>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).</p> <p><u>SCC # 5-03-008-30</u>: 1000 each-year containers used</p>
084	U	<p>SIK - Alodine tank – about 10 gallon capacity</p> <p>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.</p> <p>In the previous permits – 0990021-013-AV & 0990021-020-AC, this EU was identified as an activity subject to 40 CFR Part 63 Subpart WWWW. On September 19, 2011, the EPA issued amendments to clarify that the plating and polishing area source rule does not apply to any bench-scale activities. Bench-scale is defined as any operation that is small enough to be performed on a bench or similar structure (25 gallons) so that the equipment does not directly contact the floor.</p> <p>The tank at the facility is a 10-gallon tank, is covered and is mounted on a bench, and hence it is not subject to 40 CFR 63 Subpart WWWW. The status of this EU is changed from 'regulated' to 'unregulated.'</p>
085	U	Miscellaneous VOC/HAP Emissions Sources

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

EU No	R / U*	BRIEF DESCRIPTION
088	U	<p>Jet Engine Parts Coating Process.</p> <p>This process is used to coat the jet engine parts. This process would emit acetone and Isopropyl alcohol.</p> <p><i>The facility will purchase and install a jet engine parts coating process. Currently, an engine parts coating process is conducted as a research and development activity at the facility. The facility anticipates establishing an engine parts coating production line.</i></p> <p>[The permit no. 0990021-028-AC was issued (8/1/2012) to relocate and expand the Combustors, Augmentors, and Nozzles (CAN) operations at the facility. The proposed relocation/expansion will be completed in five phases. This permit includes EUs #049 and #088]</p> <p><u>SCC # 3-09-999-97</u>: 1000 parts processed</p>
089	U	<p>Hot Acoustic Rig (HAR) at Test Stand B-6.</p> <p>The HAR utilizes propane, air and water in evaluating design and performance of aircraft components at the B-6 test area. The EU consists of two propane burners, three propane storage tanks, with a capacity of 1000 gallons each.</p> <p>[The permit no. 0990021-031-AC was issued on 1/23/2013 for the construction of this EU]</p> <p><u>SCC # 1-02-010-02</u>: 1000 gallons of propane burned</p>

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.
[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).
[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]
- A.5 Emissions Unit #49- Notification to the Department: The permittee shall notify the Health Department within 10 days of each phase of the proposed project is completed. [Permit No. 0990021-028-AC]
- A.6 Emissions Unit #73: Coatings: The permittee shall use only siloxane-based products at this emissions unit to prepare the surface of the parts.
[Permit no. 0990021-020-AC]
- A.7 Emissions Unit # 089 - Notification to the Department: The permittee shall notify the Health Department within 30 days of the startup of the emission unit. [Permit No. 0990021-031-AC]

COMPLIANCE MONITORING REQUIREMENTS

- A.8 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) Located in open hanger with no forced exhaust or filtration located in the rocket support Test Area E; used to <i>refinish</i> metal parts of support equipment <u>SCC #4-02-001-10</u> : Gallons of Coating
064	R	Paint spray booth (PSB-1-RTF) with panel filter located in the Remote Test Facility; Binks Model # CA-528-T-LH, and it is used to <i>refinish</i> metal parts of support equipment or to coat prototype, non-production parts. Stack details: Height 46', exit diameter 3', and 16,400 ACFM. <u>SCC #4-02-001-10</u> : tons of solvent

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

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., and 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).
- (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.
 - (2) *EU 064 (PSB-1-RTF)*: 2.84 tons per consecutive 12 months, rolling total.
- (c) Emissions of Hazardous Air Pollutants (HAPs) are subject to the Facility-wide condition # 2.1.
[Permit No. 0990021-020-AC, Rule 62-210.200 (PTE), F.A.C. and Applicant 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., 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
- (c) Quantity of each VOC/HAP-containing material used to nearest tenth of a gallon.

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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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:

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

Where:

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

Σ = 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., and Permit No. 0990021-020-AC]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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

EU No	R	BRIEF DESCRIPTION
068	I*	<p>8 emergency electrical generators located near Test Area B</p> <p>This emission units consists of:</p> <ul style="list-style-type: none"> • 14 identical diesel engines, Detroit Diesel Model #32V-149-TIB-3200; • Each engine consumes approximately 106.4 gallons of diesel fuel per hour; and • A pair of engines powers a single generator for emergency electrical power demands. <p>Stack Details: Height 12.9', exit diameter 0.875', Stack Exhaust Temperature 535 F, and 4,203 ACFM volumetric flow rate. (Made Inactive to create separate emission units)</p>
092	R	2100 hp Detroit Diesel Engine (Generator 1A) , Engine Model 91637416, Serial Number 16E0009430.
093	R	2100 hp Detroit Diesel Engine (Generator 1B) Engine Model 91633416, Serial Number 16E0009909.
094	R	2100 hp Detroit Diesel Engine (Generator 2A) Engine Model 91637416, Serial Number 16E0009404.
095	R	2100 hp Detroit Diesel Engine (Generator 2B) Engine Model 91633416, Serial Number 16E0009908.
096	R	2100 hp Detroit Diesel Engine (Generator 3A) Engine Model 91637416, Serial Number 16E0009427.
097	R	2100 hp Detroit Diesel Engine (Generator 3B) Engine Model 91633416, Serial Number 16E0009907.
098	R	2100 hp Detroit Diesel Engine (Generator 4A) Engine Model 91637416, Serial Number 16E0009403.
099	R	2100 hp Detroit Diesel Engine (Generator 4B) Engine Model 91633416, Serial Number 16E0009896.
100	R	2100 hp Detroit Diesel Engine (Generator 5A) Engine Model 91637416, Serial Number 16E0009402.
101	R	2100 hp Detroit Diesel Engine (Generator 5B) Engine Model 91633416, Serial Number 16E0009897.
102	R	2100 hp Detroit Diesel Engine (Generator 6A) Engine Model 91637416, Serial Number 16E0009401.
103	R	2100 hp Detroit Diesel Engine (Generator 6B) Engine Model 91633416, Serial Number 16E0009895.
104	R	2100 hp Detroit Diesel Engine (Generator 7A) Engine Model 91637416, Serial Number 16E0009397.
105	R	2100 hp Detroit Diesel Engine (Generator 7B) Engine Model 91633416, Serial Number 16E0009894.

**The emissions Unit (EU 068) is split into different emissions units – one for each engine. Originally, these emissions unit consisted of 8 generators (2 engines per each generator). But, one of the generators is shut down indefinitely. Hence, 14 new EUs are created for 14 engines (7 generators).*

These 14 engines have identical parameters such as; Stack Height 12.9', exit diameter 0.875', Stack Exhaust Temperature 535 F, and 4,203 ACFM volumetric flow rate. Engine Consumption of each engine is 106.4 gallons per hour. Each engine burns Ultra-Low Sulfur Fuel and is Subject to 40 CFR 63, Subpart ZZZZ. All engines were manufactured in March 1990.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

The following table provides the details for the 14 engines collectively.

Engine(s) Identification	Engine(s) Brake HP	Date of Manufacture	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
EU089 thru EU104	2100 (1566kw)	March 1990	1990	<10	Detroit Diesel	91633416/ 32V-149-TIB-3200

{Permitting Note: These compression ignition reciprocating internal combustion engines (CI RICE) are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. These RICE are not used for fire pumps. These RICE are used as standby generators to power the facility in the event of a full or partial power failure as backup power for jet engine testing or for electrical power on-demand usage. These RICE are not subject to the regulations under 40 CFR 60, Subpart IIII - New Source Performance for Stationary Internal Combustion Engines (ICE) because these engines were manufactured prior to the rule applicability date. These are "existing" stationary CI RICE greater than 500 HP, with a displacement of less than 10 liters per cylinder that are located at an area source of HAPS and that have not been modified or reconstructed after 6/12/2006.

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.}

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS**C.1 Hours of Operation:**

- (a) Normal 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.
- (b) Engine Startup: During periods of startup, the permittee 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 non-startup emissions limitations apply.

[Permit No. 0990021-032-AC, Rule 62-210.200, (Def. of PTE), F.A.C. and 40 CFR 63 6625(h)]

EMISSION LIMITING AND PERFORMANCE STANDARDS

C.2 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]**

C.3 Nitrogen Oxides (NOx) Emissions 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. and Permit No. 0990021-023-AC]**

C.4 Carbon Monoxide (CO) Emissions Limit – Effective May 3, 2014: The permittee shall meet the following requirements, except during periods of startup:

- (a) Limit concentration of carbon Monoxide (CO) in the exhaust to 23 ppmvd at 15% Oxygen (O₂);

or

- (b) Reduce CO Emissions by 70% percent or more. **[40 CFR 63.6603, and Table 2d of 40 CFR 63 Subpart ZZZZ]**

C.5 Operating Limitations: The permittee shall meet the following operating limitation, except during periods of startup.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (a) maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
- (b) maintain the temperature of the 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.

[40 CFR 63.6603(b); Table 2b, 40 CFR 63.7(e) and 40 CFR 63 Subpart ZZZZ]

C.6. Allowable Fuel: Fuel shall be limited to diesel fuel containing no more than 0.0015% sulfur by weight. The permittee is must use diesel fuel that meets the following requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

- (a) Maximum Sulfur content of 15 ppm.
- (b) Cetane index or aromatic content, as follows:
 - (i) A minimum cetane index of 40; or
 - (ii) A maximum aromatic content of 35 volume percent.

[40 CFR 63.6604, and 40 CFR 80.510(b)]

COMPLIANCE REQUIREMENTS

C.7 Compliance Date: The permittee shall comply with the applicable regulations, emission limitations and operating limitations of 40 CFR Part 63 Subpart ZZZZ no later than May 3, 2013 (Conditions C.41 – C.43 of this Subsection). The permittee shall comply with ‘non-emergency compression ignition (CI) engine’ regulations from May 3, 2014. **[40 CFR 63.6640 (f)(4)(i), 40 CFR 63.6585(c), 40 CFR 63.6590(a)(1) & 40 CFR 63.6595(a)(1)]**

{Permitting Note: The applicant requested the Department to recategorize these engines as ‘emergency engines’ pursuant to 40 CFR 63.6640(f) until May 2, 2014. The permittee also requested the Health Department to categorize the engines as non-emergency engines effective May 3, 2014. Hence, the engines are subject to ‘emergency engine’ regulations till May 2, 2014; and from May 3, 2014, the engines will be subject to ‘non-emergency engine’ regulations}

C.8 Continuous Compliance: Each emissions unit shall be in compliance with the emissions limitations and operating limitations in this section at all times. **[40 CFR 6605(a)]**

C.9 At all times, the permittee shall operate and maintain the emissions units and the associated pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Health Department 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. **[40 CFR 63.6605(b)]**

MONITORING, INSTALLATION, COLLECTION, OPERATION AND MAINTENANCE REQUIREMENTS

C.10 Installation of Control Technology: The permittee shall install diesel oxidation catalyst (DOC) at each of the fourteen 2,100 BHP engines to reduce the CO emissions to 23 ppmvd @ 15% O₂ or by 70% or more as required by 40 CFR 63 Subpart ZZZZ. The DOC units are Quick-Lid Catalytic Converter, manufactured by DCL International, Inc. **[Permittee request to comply with 40 CFR Part 63 Subpart ZZZZ]**

C.11 Continuous Parameter Monitoring System (CPMS): The permittee shall install a continuous parameter monitoring system (CPMS) to monitor catalyst inlet temperature, as specified in **condition C.14 of this Subsection**. The permittee must install, operate, and maintain each CPMS according to the following requirements.

- (a) The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below, and in 40 CFR 63.8(d). As specified in 40 CFR 63.8(f)(4), The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR 63.6625(b)(1) through (5) in the site-specific monitoring plan.
 - i The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
 - ii Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
 - iii Equipment performance evaluations, system accuracy audits, or other audit procedures;

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- iv Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); and
 - v Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).
- (b) The permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.
- (c) The CPMS must collect data at least once every 15 minutes (see also 40 CFR 63.6635).
- (d) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- (e) The permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.
- (f) The permittee must conduct a performance evaluation of each CPMS in accordance with the site specific monitoring plan.

[40 CFR 63.6625(b)]

C.12 Crankcase ventilation system: The permittee shall comply with either of the following conditions.

- (a) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
- (b) 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.
- (c) 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 Health Department to approve different maintenance requirements that are as protective as manufacturer requirements.

[40 CFR 63.6625(g)]**TESTING AND INITIAL COMPLIANCE REQUIREMENTS**

C.13 Initial Performance Test: The permittee must conduct the initial performance test, as specified in **conditions C.14, C.15 of this subsection** within 180 days of May 3, 2014 (the compliance date), as specified in **condition C.7 of this Subsection**. **[40 CFR 63.6612(a)]**

C.14 Initial Compliance Demonstration: The permittee, complying with the requirement to reduce CO emissions and using oxidation catalyst, shall demonstrate the initial compliance as specified below:

When complying with CO reduction efficiency and using oxidation catalyst and using a CPMS.	
(a)	The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and
(b)	The permittee installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in Condition C.11 of this Subsection ; and
(c)	The permittee recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test
When complying with the requirement to limit concentration of CO, using oxidation catalyst, and using a CPMS	
(a)	The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
(b)	The permittee installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in Condition C.11 of this Subsection ; and
(c)	The permittee recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

[40 CFR 63.6630(a) and Table 5 of 40 CFR 63 Subpart ZZZZ]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- C.15** Initial Compliance Testing – Establishing Operating Limitations: During the initial performance test as specified in **Condition C.14 of this Subsection**, the permittee shall establish the following operating limitations.
- (a) Pressure drop across the catalyst; and
 - (b) maintain the temperature of the RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
- [40 CFR 63.6630(b)]**
- C.16** Initial Compliance Testing – Notification of Compliance Status: The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.6645. **[40 CFR 63.6630(c)]**
- C.17** NOx Emissions Compliance Test Method: EPA Method 7 shall be used to determine compliance with the emission-limiting standard for nitrogen oxides. **[Rule 62-296.570(4)(a)3., F.A.C.]**
- C.18** NOx Emissions 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 1- September 30). Annual compliance testing, while firing oil is unnecessary, for units that operate on oil for less than 400 hours in the current federal fiscal year. **[Rule 62-296.570(4)(a)3., F.A.C.]**
- C.19** Subsequent Performance Test: The permittee shall conduct subsequent performance tests as specified in **Condition C.4 of this Subsection** every 8,760 hours or 3 years, whichever comes first. **[40 CFR 63.6615, Table 3 of 40 CFR 63 Subpart ZZZZ]**
- C.20** Performance test for CO reduction efficiency: The permittee must conduct the performance test as specified below, to comply with the requirement to reduce CO emissions.
- (a) *Measurements to Determine O₂*. The owner or operator must measure the O₂ at the inlet and outlet of the control device using a portable CO and O₂ analyzer according to the ASTM D6522–00 (2005) (incorporated by reference, see 40 CFR 63.14) requirements. Measurements to determine O₂ must be made at the same time as the measurements for CO concentration. Methods 3, 3A, or 3B of 40 CFR 60 Appendix A, may also be used to determine O₂ concentrations.
 - (b) *Measurements to Determine CO*. The owner or operator must measure the CO at the inlet and the outlet of the control device using a portable CO and O₂ analyzer according to the ASTM D6522–00 (2005) (incorporated by reference, see 40 CFR 63.14) or Method 10 of 40 CFR 60 Appendix A requirements. The CO concentration must be at 15 percent O₂, dry basis. Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 may also be used.
- [40 CFR 63.6620 (a) and (b), Table 4 of 40 CFR 63 Subpart ZZZZ]**
- C.21** Performance test for CO emissions limit: The permit must conduct the performance test as specified below, to comply with the requirements to limit the concentration of CO in the RICE exhaust.
- (a) Select the sampling port location and the number of traverse points according to Method 1 of 1A of 40 CFR Part 60, appendix A 40 CFR 63.7(d)(1)(i). The sampling site must be located at the outlet of the oxidation catalyst.
 - (b) Determine the O₂ concentration of the RICE exhaust at the sampling port location, according to Method 3 of 3A or 3B of 40 CFR 60 Appendix A or ASTM Method D6522-00. Measurements to determine O₂ concentration must be made at the same time and location as the measurements for CO concentration.
 - (c) Measure moisture content of the stationary RICE exhaust at the sampling port location, according to 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. Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
 - (d) Measure CO at the exhaust of the RICE, according to Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005), Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03. CO 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.
- [40 CFR 63.6620 (a) and (b), Table 4 of 40 CFR 63 Subpart ZZZZ]**
- C.22** The permittee must conduct three separate test runs for each performance test required, as specified in 40 CFR 63.7(e)(3). Each test run must last at least 1 hour. **[40 CFR 63.6620(d)]**
- C.23** Performance Test Procedure: The permittee shall use the following performance test procedures. **[40 CFR 63.6620 (e)]**:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (1) The Permittee must use Equation 1 (below) to determine compliance with the percent reduction requirement [40 CFR 63.6620(e)](1) & (2)]:

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

Where:

C_i = concentration of carbon monoxide (CO) at the control device inlet,

C_o = concentration of CO at the control device outlet, and

R = percent reduction of CO emissions

- (2) The Permittee must normalize the carbon monoxide (CO) 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 (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described below [40 CFR 63.6620 (e)(2)(i) through (iii)]

- (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:

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

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ 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, dsm³ / J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³ / J (dscf/10⁶ Btu).

- (ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂–15 percent O₂, the defined O₂ correction value, percent.

- (iii) Calculate the NO_x and SO₂ gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

$\%CO_2$ = Measured CO₂ concentration measured, dry basis, percent.

[40 CFR 63.6620(e)]

- C.24** Initial performance test report: 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:

- (a) the engine model number,

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (b) the engine manufacturer,
- (c) the year of purchase,
- (d) the manufacturer's site-rated brake horsepower,
- (e) the ambient temperature, pressure, and humidity during the performance test, and
- (f) All assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained.
- (g) 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.

[40 CFR 63.6620 (i)]**CONTINUOUS COMPLIANCE REQUIREMENTS:**

C.25 Collection and Monitoring Data: The permittee must monitor and collect data according to 40 CFR 63 Subpart ZZZZ.

- (a) Except for monitor malfunctions, associated repairs, and required performance evaluations and required quality assurance or control activities,, the permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (b) The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must, however, use all the valid data collected during all other periods.

[40 CFR 63.6635(a), (b), and (c)]

C.26 Continuous Compliance Demonstration: The owner or operator must demonstrate continuous compliance with each emission limitation, operating limitation and other requirements specified in Tables 2b and Table 2d of 40 CFR 63 Subpart ZZZZ (**Conditions C.4 and C.5 of this Subsection**) by the following methods:

- (a) Conducting the performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO, percent reduction is achieved or that emissions remain at or below the CO concentration limit; and
- (b) Collecting the catalyst inlet temperature data according to 40 CFR 63.6625(b); and
- (c) Reducing these data to 4-hour rolling averages; and
- (d) Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
- (e) Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

[40 CFR 63.6640(a), and Table 6 of 40 CFR 63 Subpart ZZZZ]

C.27. The permittee must report each instance in which the permittee did not meet each emission limitation or operating limitation in **Conditions C.4 and C.5 of this Subsection**. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 CFR 63.6650.

If catalyst is changed, the permittee must reestablish the values of the operating parameters measured during the initial performance test. When reestablishing the values of the operating parameters, the permittee must also conduct a performance test to demonstrate required emission limitation applicable to the stationary RICE is met.

[40 CFR 63.6640(b)]

C.28 The permittee must also report each instance in which the applicable requirements of Table 8 of 40 CFR 63 Subpart ZZZZ are not met. **[40 CFR 63.6640(e)]**

NOTIFICATION REQUIREMENTS:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- C.29** Notification Requirements: The owner or operator 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 by the dates specified. **[40 CFR 63.6645(a)]**
- C.30** Notification of Intent to Conduct a Performance Test. The permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). **[40 CFR 63.6645(g)]**
- C.31** Notification of Compliance Status: When the initial compliance demonstration is conducted as specified in Tables 4 and 5 of 40 CFR 63 Subpart ZZZZ (**Conditions C.14, C.20 and C.21 of this Subsection**), the permittee must submit a Notification of Compliance Status according to Rule 40 CFR 63.9(h)(2)(ii).
- (a) For each compliance demonstration required in Table 5 of 40 CFR 63, Subpart ZZZZ that does not include a performance test, the owner or operator must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
 - (b) For each compliance demonstration required in Table 5 of 40 CFR 63, Subpart ZZZZ that includes a performance test conducted according to the requirements in Table 3 of 40 CFR 63, Subpart ZZZZ, the owner or operator must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to 40 CFR 63.10(d)(2).
- [40 CFR 63.6645(h)]**

REPORTING REQUIREMENTS:

- C.32** Reporting Requirements: The Permittee shall submit Annual and Semiannual Compliance Report, **as required in Table 7 of 40 CFR Part 63 Subpart ZZZZ**, containing the following information:
- (a) When there were no deviations: If there are no deviations from any emission limitations or operating limitations that apply to the emissions units, the report shall contain 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 CPMS was out-of-control, as specified in 40 CFR 63.8(c)(7), the report shall contain a statement that there were not periods during which the CPMS was out-of-control during the reporting period.
 - (b) When there were deviations: If the emissions units had a deviation from any emission limitation or operating limitation during the reporting period, the report shall contain following information:
 - (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 there was 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 § 63.6605(b), including actions taken to correct a malfunction.

[40 CFR 63.6650(a) and (c) , Table 7 of 40 CFR 63 Subpart ZZZZ]

- C.33** Semiannual Compliance Report: The permittee shall submit each report required in **Condition C.32 of this Subsection** by the dates as specified below:
- (a) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date as specified in **Condition C.7 of this Subsection** 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.
 - (b) 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 as specified in **Condition C.7 of this Subsection**.
 - (c) 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.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (d) 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.
[40 CFR 63.6650(b)(1) – (4)]

C.34 Annual Reports: The permittee shall submit each annual compliance report required in **Condition C.32 of this Subsection** by the dates as specified below:

- (a) The first annual Compliance report must cover the period beginning on the compliance date that is specified in 40 CFR 63.6595 and ending on December 31.
- (b) 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 in 40 CFR 63.6595.
- (c) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
- (d) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

[40 CFR 63.6650(b)(6)-(9)]

C.35 For each deviation from an emission or operating limitation occurring for a stationary RICE where the permittee is using a CMS to comply with the emission and operating limitations in this subpart, the permittee must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

- (a) Company name and address.
- (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (c) Date of report and beginning and ending dates of the reporting period.
- (d) If there was 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 § 63.6605(b), including actions taken to correct a malfunction
- (e) The date and time that each malfunction started and stopped.
- (f) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
- (g) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).
- (h) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
- (i) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
- (j) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- (k) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- (l) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
- (m) A brief description of the stationary RICE.
- (n) A brief description of the CMS.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (o) The date of the latest CMS certification or audit.
- (p) A description of any changes in CMS, processes, or controls since the last reporting period.

[40 CFR 63.6650(e), and 40 CFR 63.6650(c)(1) – (4)]

C.36 Title V Semi-Annual Report: The permittee must report all deviations as defined in this permit 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 the permittee submits a Compliance report pursuant to Table 7 40 CFR 63 Subpart ZZZZ 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.

[40 CFR 63.6656(f)]**RECORDKEEPING REQUIREMENTS**

C.37 The permittee must keep the records as specified below.

- (a) A copy of each notification and report that the permittee submitted to comply with this permit, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
- (b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
- (c) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- (d) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (e) 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.

For each CPMS, the permittee must maintain the following records.

- (a) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
- (b) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
- (c) Requests for alternatives to the relative accuracy test for CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.

[40 CFR 63.6655(a) and (b)]

C.38 The permittee must keep the records required in Table 6 of 40 CFR 63 Subpart ZZZZ (**CONDITION C.26 of this Subsection**) to show continuous compliance with each emission or operating limitation that applies to the emissions units.

C.39 The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable 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 engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

[40 CFR 63.6655(f)]

C.40 Duration and Form of the Records: The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).

As specified in § 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

The permittee 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 § 63.10(b)(1).

[40 CFR 63.6660]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**OPERATION OF THE EMISSIONS UNITS AS EMERGENCY ENGINES TILL MAY 2, 2014**

C.41 Operation of the Emissions Units as Emergency Engines: Pursuant to Rule 40.63.6640(f)(4), the permittee elected to operate these engines as 'emergency engines' till May 2, 2014' The permittee shall operate these units according to applicable provisions of 40 CFR Part 63 Subpart ZZZZ.

Permittee shall comply with following operating limitations for the emergency engines.

- (a) Change oil and filter every 2,160 hours of operation or annually, whichever comes first;
- (b) Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
- (c) Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.

Permittee shall comply with the following work management practices for the emergency engines.

- (a) Operate and maintain the engines according to the manufacturer's emission related operation and maintenance instructions; or
- (b) Develop and follow the 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.

[40 CFR 62.6640(f)(4)]

C.42 The permittee shall operate the engines according to the requirements of 40 CFR 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (4) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 63.6640 (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- (a) There is no time limit on the use of emergency stationary RICE in emergency situations. The permittee shall also comply with the hours of operation, as specified in **Condition C.1 of this Subsection**.
- (b) The permittee may operate the emissions units for any combination of the purposes specified in 40 CFR 63.6640 (f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640 (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by rule 40 CFR 63.6640 (f)(2).
- (c) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Department 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 calendar year.
- (d) The emissions units may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
- (e) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 CFR 63.6640(f)(1) – (2)]

C.43 The emissions unit shall comply with provisions of 40 CFR 63.6640(i) as specified below.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

The emissions units may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 63.6640 (f)(2). Except as provided in 40 CFR 63.6640 (f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

- (a) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.
- (b) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
 - ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - iv. The power is provided only to the facility itself or to support the local transmission and distribution system.
 - v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. **[40 CFR 63.6640(f)(4)]**

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Subsection D: *This subsection addresses the following emissions units:*

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

EMISSION LIMITING AND PERFORMANCE STANDARDS

D.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]

D.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]**

D.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 D.4** of this subsection 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

D.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

D.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]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

{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.}

- D.6 Quality Assurance Plan (QAP): The permittee shall prepare a written QAP for the Emissions Inventory requirement of **Condition.E.5** of this subsection. 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 D.4** of this subsection. 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]

- D.7 Continuous Emissions Monitoring System (CEMS): The permittee may in-lieu of the emissions inventory and QAP requirements of **Conditions.D.5** and **D.6 of this subsection**, 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

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

- (a) Test Number (Assigned by P&W).
- (b) Test Date (MM/DD/YY).
- (c) Test Mode (R&D or QA/QC).
- (d) Test Method (Wet, Dry, or Low-NOx).
- (e) Ambient Conditions (Temperature, Pressure, and Relative Humidity) during each test.
- (f) Test data examples include Load (%), Duration at each Load Point (min.), Water to Fuel ratio, and test duration.
- (g) Emissions estimates for the Oxides of Nitrogen (NOx) and Carbon Monoxide (CO) in pounds per test based on the Emissions Inventory Data of **Condition.D.5 of this subsection**
- (h) Annual Emissions for NOx and CO based on a 12-month rolling total calculated by the 20th 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 E: This subsection of the permit addresses the following group of emissions units:

EU ID No	EMISSIONS UNIT DESCRIPTION
079	<p>Two GG4-9A JP-8 Fired Combustion Turbines</p> <p>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.</p>

{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

E.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]

E.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}

E.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

E.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

E.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

- E.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 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]**

- E.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]**

- E.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

- E.9 Monthly Emission Records: The permittee shall maintain monthly emission records as described in **Specific Condition E.5** of this subsection, 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]**
- E.10 Excess Emissions Reporting: If excess emissions occur, the permittee shall notify the 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 F. This subsection of the permit addresses the following group of emissions units:

EU ID No	STATUS	EMISSIONS UNIT DESCRIPTION
081	Regulated	<p><u>Spray Booth (PS-14-SIK): Binks Model PFA-8-7-T-LH spray booth</u></p> <p>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.</p> <p><i>This emission unit was previously permitted as EU # 006 in Sikorsky's air permit – 0990185-004-AF.</i></p> <p><u>SCC# 4-02-001-10:</u> gallons of coating</p>
082	Regulated	<p><u>Spray Booth (PS-16-SIK): Binks auto spray booth</u></p> <p>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.</p> <p><i>This emission unit was previously permitted as EU # 008 in Sikorsky's air permit – 0990185-004-AF.</i></p> <p><u>SCC# 4-02-001-10:</u> gallons of coating</p>

{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 are 2.1 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)*
- *Coating operations (primer, top coat, clear coat, and , and specialty coatings)*

{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

- F.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]**
- F.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., and Permit No. 0990021-020-AC]**
- F.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]**
- F.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]**

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

{Permitting Note: The painting operations are not subject to VOC RACT limits in Rule 62-296.513, F.A.C. because either a: exterior aircraft are coated, which are exempt under Rule 62-296.513(b)(7), F.A.C., or b: coating of parts results in emissions less than 3 lb VOC/hour and 15 lb VOC/day, which is exempt under Rule 62-296.500(3), F.A.C.}

- F.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, and Permit No. 0990021-020-AC]**
- F.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, and Permit No. 0990021-020-AC]**
- F.7 **40 CFR 63 Subpart HHHHHH**: These spray booths are subject to the regulations of 40 CFR Part 63 Subpart HHHHHH "National Emission Standard for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources," which are included in Appendix HHHHHH. **[Permit No. 0990021-020-AC]**

COMPLIANCE MONITORING REQUIREMENTS

- F.8 **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]**
- F.9 **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]**
- F.10 **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. EMISSIONS UNIT SPECIFIC CONDITIONS

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

EU ID No	STATUS	EMISSIONS UNIT DESCRIPTION
083	Regulated	<p>Small Boiler (BO-4-SIK): Steam boiler model CBH-70 is manufactured by Cleaver Brooks and identified by the facility as BO-4-SIK. <i>This emission unit was previously permitted as EU # 009 in Sikorsky's permit – 0990185-004-AF.</i></p> <p><u>SCC# 1-02-006-03:</u> MMCF Gas burned <i>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.</i></p>

{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

- G.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. and Permit No. 0990021-020-AC]
- G.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, and Permit No. 0990021-020-AC]
- G.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]
- G.4 Unrestricted Hours of Operation: The hours of operation for this emissions unit are not limited. [Permit No. 0990021-02-AC]

COMPLIANCE MONITORING REQUIREMENTS

- G.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]
- G.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 NO.62-210.900(5), F.A.C. [Rule 62-210.370, F.A.C. and Permit No. 0990021-020-AC]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**SUBSECTION H. This subsection of the permit addresses the following emissions unit:**

EU No.	BRIEF DESCRIPTION
086	<p>Fire Innovation and Test (FIT) Center.</p> <p>The air emissions from indoor testing at the FIT center will be controlled by two parallel ultra-high-efficiency filters (UHF) manufactured by APC Technologies, Inc. Each train includes two UHF units in series. The primary-stage UHF removes the coarser particulate and the second-stage unit removes very fine particulate and condensed organics. The estimated flow rate at each train is 50,000 cfm. The facility also added a water spray system which will cool gas before entering the UHF unit. The UHF filter achieves 90% control efficiency for particulate matter.</p> <p><u>Stack parameters:</u> Emissions from both the trains are vented to a single stack with height ~ 72 ft, exit diameter 6.5 ft, exit temperature 400°F, actual volumetric flow rate 100,000 acfm.</p> <p><u>SCC # 10300908:</u> Tons burned (engineered wood, waste wood, untreated wood products)</p> <p><u>SCC # 21004004:</u> 1000 gallons burned (No 2 fuel oil, vegetable oil)</p> <p><u>SCC # 50200203:</u> tons burned (plastic)</p>

AIR POLLUTION CONTROL EQUIPMENT AND METHODS

H.1 Ultra High-Efficiency Filters (UHF) Units: Air pollutant emissions from the test hall shall be controlled by two trains of UHF filters with 50,000 acfm flow rate at each train. Each train shall consist of two UHF units in series as specified in the permit application.

The UHF units shall be maintained and operated according the manufacturer's specifications. The operators shall be trained in the operation and maintenance procedures.

[Permit No. 0990021-030-AC]

EMISSION LIMITING AND PERFORMANCE STANDARDS

H.2 Operating hours: The hours of operation for these emissions units are not limited (8760 hours per year).

[Rule 62-210.200 (PTE), F.A.C. and Permit No. 0990021-030-AC]

H.3 Indoor Burning: Test fuel packages shall contain only the following materials. The permitted shall receive approval from the Health Department to include other materials in the test fuel packages.

- Wood (engineered wood, waste wood and untreated wood)
- Plastics
- Heptane
- No 2 Fuel Oil
- Vegetable Oil
- Isopropyl Alcohol
- Acetone
- Propane
- Methane
- Other light hydrocarbons

[Permit Nos. 0990021-023-AC & 0990021-030-AC]

H.4 Outdoor Burning: No person shall ignite, cause to be ignited, or permit to be ignited, any material which will result in any prohibited open burning as regulated by Chapter 62-256, F.A.C.; nor shall any person suffer, allow, conduct, or maintain any prohibited open burning.

[Rule 62-250.300(1), F.A.C. and Permit No. 0990021-030-AC]

Open burning of test package material is allowed only as provided in Chapter 62-256, F.A.C. Open burning shall not involve any material prohibited from being burned at Rule 62-256.300, F.A.C. Open burning of biological waste, hazardous waste, asbestos-containing materials, mercury-containing devices, pharmaceuticals, tires, rubber material, residual oil, used oil, asphalt, roofing material, tar, treated wood, plastics, garbage, or trash is prohibited.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

[Rules 62-296.320(3)(a) and 62-256.300(2)(a), F.A.C.]

The permittee shall use only virgin diesel fuel oil, untreated wood, heptane, propane, methane, other light hydrocarbons, and isopropyl alcohol in test packages that are used in outdoor burning.

[Permit Nos. 0990021-023-AC & 0990021-030-AC, Rule 62-296.320(3), F.A.C.]

H.5 Air Pollutant Emissions Limits: The permittee shall not allow the emissions of air pollutants from this emission unit to exceed the limits specified below:

Pollutant	Permissible Limits (tons per any consecutive 12-month period)
PM	3.45
PM ₁₀	3.13
NO _x	15
CO	14.8
VOC	39.26
Lead	0.00009
SO ₂	2.5

[Permit Nos. 0990021-023-AC & 0990021-030-AC]

H.6 HAP Emissions: Emissions of Hazardous Air Pollutants (HAPs) are subject to the Section II, Facility-wide condition no. 2.1. [Applicant's Request, Rule 62-210.200(PTE), F.A.C. and Permit No. 0990021-030-AC]

H.7 Fire Suppressants: The fire suppressants shall not contain any CFCs. [Permit No. 0990021-023-AC and Permit No. 0990021-030-AC]

COMPLIANCE MONITORING REQUIREMENTS

H.8 Daily Log: For each day of operation either indoor testing or outdoor testing, 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:

- (d) Date of operation and type of testing (indoor or outdoor)
- (e) Identification of each material in each test fuel package.
- (f) Identification of fire suppressant
- (g) Quantity of each material used in each test fuel package in pounds. The permittee may use 100% of the material used in estimating the emissions, or may follow the procedure specified in **Appendix E** to estimate the amount of each material burned.
- (h) Quantity of fire suppressant used
- (i) If the UHF unit was operational and the details any maintenance performed at the UHF unit.

[Permit Nos. 0990021-023-AC & 0990021-030-AC]

H.9 Monthly Operations Log: The permittee shall demonstrate compliance with the emission limits specified in **conditions J.5 and J.6** of this subsection 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. On or before the 20th calendar day of each month, the permittee shall calculate and record the following information for the previous month of indoor & outdoor testing operations:

- (d) Month of operation.
- (e) Type and quantity of each material used in test fuel packages during the previous month.
- (f) Calculate air emissions from each material for the previous month and for the previous consecutive 12 months, rolling total. Permittee shall use the emission factors shown in **Appendix D** in estimating the air emissions. Individual HAP

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

emissions shall be estimated using AP-42 or the industry specific publications. The Health Department may revise the emission factors when the Environmental Protection Agency revises the emission factors in AP-42 publication.

- (g) Calculations shall assume that 100% of heptane and alcohols used will evaporate into the atmosphere.

[Permit Nos. 0990021-023-AC & 0990021-030-AC]

H.10 Monthly Emissions Calculations: The emissions calculation shall be consistent with the following generic equation:

$$E_M = \sum (U_M \times EF_M)$$

Where:

- E_M = Calculated air emissions for a given month reported to the nearest hundredth of a ton for a give pollutant M
 \sum = Sum of the emissions from different materials (wood, plastics, Heptane, no 2 fuel oil, vegetable oil, and alcohol.)
 U_M = Usage of each material for a given month reported from the daily log
 EF_M = Emission factor for pollutant M from each material

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. 0990021-023-AC and Permit No. 0990021-030-AC]

REPORTING REQUIREMENTS

H.11 The permittee shall submit semi-annual reports that summarize the details of materials usage (both indoor and outdoor operations) and the air emissions calculations for indoor & outdoor operations. Each report covers a period of six months (January – June & July-December) and these reports shall be submitted to the Health Department by July 31st and January 31st respectively.

These reports shall contain a statement regarding CFC content in the fire suppressants used during the reporting period.

[Permit No. 0990021-023-AC and Permit No. 0990021-030-AC]

H.12 The permittee shall provide a written notification (by email, fax, or letter) to the permitting authority at least 48 hours prior to burning any additional light hydrocarbons. The notification shall include name of the hydrocarbon, whether burning is indoor or outdoor, if it is classified as a HAP, and emission factors for estimating the air emissions.

[Permit No 0990021-030-AC]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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

087	Exempt	<p>One 810 KW emergency electrical generator</p> <p>Kohler, 810 KW, Model Number 800REOZMB, Serial number 2342382, consumes ~58 – 67 gallons of distillate fuel per hour at 100% load.</p> <p><u>SCC #2-03-001-01</u>: Internal combustion, diesel fuel</p>
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[This emergency generator is used for emergency power in support of life safety and safe shutdown of testing operations in the event of a power loss event. The permittee stated that this generator is categorically exempt pursuant to Rule 62-210.300(3)(a)35, F.A.C.]

EMISSION LIMITING AND PERFORMANCE STANDARDS

- I.1** 40 CFR 63 Subpart ZZZZ & 40 CFR 60 Subpart IIII: This emission unit is subject to the regulations of 40 CFR Part 63 Subpart ZZZZ “National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)”; and the regulations of 40 CFR 60 Subpart IIII “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE).”
[40 CFR 63 Subpart ZZZZ & 40 CFR 60 Subpart IIII, and Permit No. 0990021-030-AC]
- I.2** Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
[40 CFR 60. 4205(b), and Permit No. 0990021-030-AC]
- I.3** Allowable Fuel: Fuel shall be limited to No. 2 diesel fuel oil. The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C. and Permit No. 0990021-030-AC]
- I.4** Hours of Operation: Operating hours of this emission unit for emergency operations are not restricted
[Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C. and Permit No. 0990021-030-AC]

RECORDS

- I.5** Fuel Records: The permittee shall record the actual amount of fuel throughput for this emission unit. All records shall be maintained on site at the facility. **The permittee shall maintain records of combined fuel consumption for ALL emergency generators at the facility that are exempt under Rule 62-210.300(3)(a), F.A.C.**
[Permit No. 0990021-030-AC]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Subsection J: This subsection addresses the following emissions unit:

EU No.	Status	Brief Description
090	R	<p>FT4000 Gas Turbine Testing at Test Stand A-4</p> <p>Maximum Heat Input is 653.3 MMbtu/hr and average heat input of 367.7 MMbtu/hr</p> <p>2-04-003-01 -- Internal combustion engine, Engine Testing, Natural Gas, Turbine (Million Cubic Feet of Natural Gas Burned)</p>

The FT4000 gas Turbine testing is conducted at the Test Stand A-4. This test stand is currently included in the Title V air operation permit as an unregulated emission unit and is grouped with other test stands under Emissions Unit number 069 of the Title V permit. Currently, military and commercial aircraft engines are tested at these test stands (EU 069).

This permit is issued to authorize the testing of FT4000 gas turbines at test stand A-4. This project also includes a reciprocating internal combustion engine (RICE) that is permitted under a different emissions unit number. The facility will keep track of air emissions from this project (both testing gas turbines and the RICE).

AIR POLLUTION CONTROL EQUIPMENT

J.1. Permitted Capacity: The permittee shall not allow, cause, suffer or permit the operation of the test stand, when testing the FT4000 gas turbines, in excess of the following capacities without prior authorization from the Permitting Authority:

- The maximum heat input is 653.3 MMbtu/hr. The testing of the gas turbines shall utilize only natural gas or JP-8 fuel.

[Permit No. 0990021-032-AC]

J.2. Air Emissions Controls: The permittee shall install, operate, and maintain the proposed 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 unit.

[Permit No. 0990021-032-AC]

J.3. Notification to the Department: The permittee shall notify the Health Department within 30 days of commencing the testing of the FT4000 gas turbine. **[Permit No. 0990021-032-AC]**

PERFORMANCE STANDARDS

J.4. Hours of Operation: The hours of operation of the test stand, while testing the FT4000 gas turbines on natural gas, are limited to 904 hours per year. **[Applicant request to escape PSD Regulations, and Permit No. 0990021-032-AC]**

J.5. Natural Gas Consumption: The fuel consumption from the test stand, while testing FT4000 gas turbines, shall not exceed 327.5 million cubic feet of natural gas in any 12 consecutive months, rolling total. **[Applicant request to escape PSD Regulations, and Permit No. 0990021-032-AC]**

[Permitting Note: Based on operating hours limit and the fuel consumption limit, the emissions of NOx and CO are restricted to 37 tons per year and 27.6 tons per year – less than the threshold for significant emission rate pursuant to PSD regulations.]

COMPLIANCE MONITORING REQUIREMENTS

J.6. Emissions Inventory: The permittee shall maintain a current emissions inventory for each testing cycle of the gas turbine. As a minimum, the emissions inventory shall be reviewed and revised monthly, as needed. The emissions inventory shall include the following information:

- The gas turbine type
- The operating load (psia) and duration of each operating load
- The average heat input rate (MMbtu/hr) during each operating load
- Monthly Hours of Operation
- Monthly Fuel consumption [mmcf of natural gas]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (f) Emissions estimation for NOx and CO based on each operating load during each test
- (g) Monthly estimation of NOx and CO emissions

[Permit No. 0990021-032-AC]

- J.7. Monitoring of operating load:** The permittee shall monitor hourly average operating load (psia) and hourly heat input rate (MMbtu/hr). The emission factors, provided in permit application and presented in **Appendix F**, 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. 0990021-032-AC]**
- J.8. Testing of CO and NOx:** In order to verify the emissions factors for CO and NOx, used in the permit application (shown in **appendix F**), the permittee shall measure the emissions of CO and NOx at various loads during the testing of FT4000 gas turbines. At a minimum, three emissions tests (runs) shall be conducted at each load. The permittee shall evaluate the measured data with the emissions data presented in **appendix F**. If the measured concentrations (emissions) are higher than the emissions rates presented in the application, then the permittee shall use the higher emissions rate in estimating the actual emissions of NOx and CO. **[Permit No. 0990021-032-AC]**
- J.9. 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. **[Permit No. 0990021-032-AC]**

REPORTING AND RECORDKEEPING REQUIREMENTS

- J.10. Monthly Emission Records:** The permittee shall maintain monthly emission records as described in Specific **Condition J.6** of this subsection, on or before the 15th 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 the Health Department representatives upon request. **[Rule 62-297.310(7) (b), F.A.C. and Permit No. 0990021-032-AC]**

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Subsection K: This subsection addresses the following emissions unit:

EU No.	Status	Brief Description
091	R	<p>FT4000 Compressor Reciprocating Internal Combustion Engine (RICE) Engine</p> <p>The proposed RICE will be a Caterpillar Model No. G3412C. The RICE being considered is manufactured in 2004, and has the rating of 676 hp.</p> <p><u>SCC 2-03-002-01</u> Internal Combustion Engine, Industrial, Natural Gas, Reciprocating (MMCF Burned)</p>

Permitting Note: Since the RICE is manufactured in 2004, it is not subject to the regulations of 40 CFR 60 Subpart JJJJ "New Source Performance Standards for Spark Ignition (SI) Engines." This RICE is subject to the regulations of 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for RICE." According to Subpart ZZZZ, this engine is classified as "spark ignition non-emergency four stroke lean burn (4SLB) engine."

AIR POLLUTION CONTROL EQUIPMENT

K.1. Air Emissions 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 unit.

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K.2. Notification to the Department: The permittee shall notify the Health Department within 10 days after the RICE is installed. The permittee shall include the manufacturing date of the RICE in the notification. **[Permit No. 0990021-032-AC]**

PERFORMANCE STANDARDS

K.3. Hours of Operation: The hours of operation of the RICE are limited to 1130 hours in any 12 consecutive months, rolling total. **[Applicant's request to escape the PSD Regulations, and Permit No. 0990021-032-AC]**

K.4. Natural Gas Consumption: The fuel consumption from the RICE shall not exceed 6.33 million cubic feet of natural gas in any 12 consecutive months, rolling total. **[Applicant's request to escape the PSD Regulations, and Permit No. 0990021-032-AC]**

COMPLIANCE MONITORING REQUIREMENTS

K.5. Applicability of 40 CFR 63 Subpart ZZZZ: This reciprocating engine is subject to the regulations of 40 CR part 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines." **[Rule 62-204.800(11), F.A.C. and Permit No. 0990021-032-AC]**

K.6. The emissions unit must comply with the applicable emission limitations, operating limitations, and other requirements no later than **October 19, 2013**. **[40 CFR 63.6595(a)]**

K.7. Compliance with the numerical emission limitations established for this emissions unit 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 of 40 CFR Part 63 Subpart ZZZZ.

The permittee must install an oxidation catalyst to reduce HAP emissions from the emissions unit. **[40 CFR 63.6603(a), Table 2d of 40 CFR 63 Subpart ZZZZ]**

General Compliance Requirements

K.8. Continuous Compliance: Each emissions unit shall be in compliance with the emissions limitations and operating limitations in this section at all times. **[40 CFR 6605(a)]**

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

K.9 At all times, the permittee shall operate and maintain the emissions units and the associated pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Health Department 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. **[40 CFR 63.6605(b)]**

Testing and Initial Compliance Requirements

K.10 Initial Performance Test: The permittee must conduct the initial performance test, as specified in K.11, K.12 and K.13 of this subsection within 180 days of October 19, 2013 (the compliance date), as specified in 40 CFR 63.6595(a). **[40 CFR 63.6612(a)]**

K.11 Initial Compliance Demonstration: The permittee, complying with the requirement to reduce HAP emissions and using oxidation catalyst, shall demonstrate the initial compliance as specified below:

- (a) You have conducted an initial compliance demonstration as specified in 40 CFR 63.6630(e) to show that the **average reduction of emissions of CO is 93 percent or more**, or the average CO concentration is **less than or equal to 47 ppmvd at 15 percent O₂**.
- (b) The permittee installed a CPMS to continuously monitor the catalyst inlet temperature according to the requirements in 40 CFR 63.6625(b), **OR** the permittee installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350° F.

[40 CFR 63.6612(a) and Table 5 of 40 CFR 63 Subpart ZZZZ]

K.12 Performance test for CO reduction efficiency: The permittee must conduct the performance test as specified below, to comply with the requirement to reduce CO emissions.

- (a) *Measurements to Determine O₂*. The owner or operator must measure the O₂ at the inlet and outlet of the control device using a portable CO and O₂ analyzer according to the ASTM D6522-00 (2005) (incorporated by reference, see 40 CFR 63.14) requirements. Measurements to determine O₂ must be made at the same time as the measurements for CO concentration. Methods 3, 3A, or 3B of 40 CFR 60 Appendix A, may also be used to determine O₂ concentrations.
- (b) *Measurements to Determine CO*. The owner or operator must measure the CO at the inlet and the outlet of the control device using a portable CO and O₂ analyzer according to the ASTM D6522-00 (2005) (incorporated by reference, see 40 CFR 63.14) or Method 10 of 40 CFR 60 Appendix A requirements. The CO concentration must be at 15 percent O₂, dry basis. Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 may also be used.

[40 CFR 63.6603, 40 CFR 63.6620 (a) and (b), Table 4 of 40 CFR 63 Subpart ZZZZ]

K.13 Performance test for CO emissions limit: The permit must conduct the performance test as specified below, to comply with the requirements to limit the concentration of CO in the RICE exhaust.

- (a) Select the sampling port location and the number of traverse points according to Method 1 of 1A of 40 CFR Part 60, appendix A 40 CFR 63.7(d)(1)(i). The sampling site must be located at the outlet of the oxidation catalyst.
- (b) Determine the O₂ concentration of the RICE exhaust at the sampling port location, according to Method 3 of 3A or 3B of 40 CFR 60 Appendix A or ASTM Method D6522-00. Measurements to determine O₂ concentration must be made at the same time and location as the measurements for CO concentration.
- (c) Measure moisture content of the stationary RICE exhaust at the sampling port location, according to 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. Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
- (d) Measure CO at the exhaust of the RICE, according to Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005), Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03. CO 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.

[40 CFR 63.6603, 40 CFR 63.6620 (a) and (b), Table 4 of 40 CFR 63 Subpart ZZZZ]

K.14 The permittee must conduct three separate test runs for each performance test required, as specified in 40 CFR 63.7(e)(3). Each test run must last at least 1 hour. **[40 CFR 63.6620(d)]**

K.15 Performance Test Procedure: The permittee shall use the following performance test procedures. **[40 CFR 63.6620 (e)]**:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (1) The Permittee must use Equation 1 (below) to determine compliance with the percent reduction requirement [40 CFR 63.6620(e)](1) & (2)]:

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

Where:

C_i = concentration of carbon monoxide (CO) at the control device inlet,

C_o = concentration of CO at the control device outlet, and

R = percent reduction of CO emissions

- (2) The Permittee must normalize the carbon monoxide (CO) 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 (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described below [40 CFR 63.6620 (e)](2)(i) through (iii)]

- (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:

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

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ 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, dsm³ / J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³ / J (dscf/10⁶ Btu).

- (ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂–15 percent O₂, the defined O₂ correction value, percent.

- (iii) Calculate the NO_x and SO₂ gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

$\%CO_2$ = Measured CO₂ concentration measured, dry basis, percent.

[40 CFR 63.6620(e)]

- K.16 Initial performance test report: 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:

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (a) the engine model number,
- (b) the engine manufacturer,
- (c) the year of purchase,
- (d) the manufacturer's site-rated brake horsepower,
- (e) the ambient temperature, pressure, and humidity during the performance test, and
- (f) All assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained.
- (g) 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.

[40 CFR 63.6620 (i)]

K.17 If Continuous Parameter Monitoring System (CPMS) is chosen for inlet temperature: The permittee shall install a continuous parameter monitoring system (CPMS) to monitor catalyst inlet temperature, as specified in **Table 5 of 40 CFR 63 Subpart ZZZZ (Condition K.11 of this subsection)**. The permittee must install, operate, and maintain each CPMS according to the following requirements.

(1) The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below, and in 40 CFR 63.8(d). As specified in 40 CFR 63.8(f)(4), The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR 63.6625(b)(1) through (5) in the site-specific monitoring plan.

- i The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
- ii Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;
- iii Equipment performance evaluations, system accuracy audits, or other audit procedures;
- iv Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1) (ii) and (c)(3); and
- v Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).

(2) The permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR 63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) The permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.

(6) The permittee must conduct a performance evaluation of each CPMS in accordance with the site specific monitoring plan.

[40 CFR 63.6625(b)]

K.18 Engine Startup: During periods of startup, the permittee 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 non-startup emissions limitations apply. **[40 CFR 63.6625(h)]**

K.19 The permittee must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies according to Table 5 of 40 CFR 63 subpart ZZZZ. **[40 CFR 63.6630(a)]**

K.20 Initial Compliance Testing – Establishing Operating Limitations: During the initial performance test as specified in **Table 2d of 40 CFR 63 Subpart ZZZZ**, the permittee shall establish the following operating limitations.

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- (a) Pressure drop across the catalyst; and
- (b) maintain the temperature of the RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.

[40 CFR 63.6630(b)]

- K.21 Initial Compliance Testing – Notification of Compliance Status: The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.6645. **[40 CFR 63.6630(c)]**
- K.22 The initial compliance demonstration must be conducted according to the following requirements:
- (a) The compliance demonstration must consist of at least three test runs.
 - (b) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A of 40 CFR 63 must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
 - (c) When demonstrating compliance with the CO concentration or CO percent reduction requirement, the permittee must measure CO emissions using one of the CO measurement methods specified in **Table 4 of 40 CFR 63 subpart ZZZZ (condition K.12 of this subsection)**, or using appendix A to this subpart.
 - (d) The permittee must measure O2 using one of the O2 measurement methods specified in **Table 4 of 40 CFR 63 subpart ZZZZ (condition K.12 of this subsection)**. Measurements to determine O2 concentration must be made at the same time as the measurements for CO concentration.
 - (e) When demonstrating compliance with the CO percent reduction requirement, the permittee must measure CO emissions and O2 emissions simultaneously at the inlet and outlet of the control device.

[40 CFR 63.6630(e)]**Continuous Compliance Requirements**

- K.23 Collection and Monitoring Data: The permittee must monitor and collect data according to 40 CFR 63 Subpart ZZZZ.
- Except for monitor malfunctions, associated repairs, and required performance evaluations and required quality assurance or control activities,, the permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must, however, use all the valid data collected during all other periods.

[40 CFR 63.6635(a), (b), and (c)]

- K.24 Continuous Compliance Demonstration: The owner or operator must demonstrate continuous compliance with each emission limitation, operating limitation and other requirements as specified below.
- (a) Install an oxidation catalyst
 - (b) Conducting annual compliance demonstrations as specified in show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O₂; and either.
 - (c) Collecting the catalyst inlet temperature data according to 40 CFR 63.6625(b); and reducing these data to 4-hour rolling averages; and
Maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature, or
 - (d) Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.

[40 CFR 63.6640(a), and Table 2d and 6 of 40 CFR 63 Subpart ZZZZ]

- K.25 The permittee must report each instance in which the permittee did not meet each emission limitation or operating limitation in **condition M.25 of this subsection**. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 CFR 63.6650. If catalyst is changed, the permittee

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must reestablish the values of the operating parameters measured during the initial performance test. When reestablishing the values of the operating parameters, the permittee must also conduct a performance test to demonstrate required emission limitation applicable to the stationary RICE is met.

[40 CFR 63.6640(b)]

- K.26 Annual Compliance Demonstration: The annual compliance demonstration must be conducted according to the following requirements:
- The compliance demonstration must consist of at least one test run.
 - Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
 - When the permittee is demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in **Table 4 of 40 CFR 63 subpart ZZZZ (condition K.12 of this subsection), or using appendix A to this subpart.**
 - The permittee must measure O₂ using one of the O₂ measurement methods specified in **Table 4 of 40 CFR 63 subpart ZZZZ (condition K.12 of this subsection)**. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO concentration.
 - When permittee is demonstrating compliance with the CO percent reduction requirement, you must measure CO emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.
 - If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of 40 CFR 63 subpart ZZZZ, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in **Table 6 of 40 CFR 63 subpart ZZZZ (condition K.24 of this subsection)**. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in **Table 6 of this subpart.**
- [40 CFR 63.6640(c)]**
- K.27 The permittee must also report each instance in which the applicable requirements of Table 8 of 40 CFR 63 Subpart ZZZZ are not met. **[40 CFR 63.6640(e)]**

Notifications, Reports, and Records

- K.28 Notification Requirements: The owner or operator 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 by the dates specified. **[40 CFR 63.6645(a)]**
- K.29 Notification of Intent to Conduct a Performance Test. The permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). **[40 CFR 63.6645(g)]**
- K.30 Notification of Compliance Status: When the initial compliance demonstration is conducted as specified in Tables 4 and 5 of 40 CFR 63 Subpart ZZZZ (**Conditions K.11 and K.12 of this subsection**), the permittee must submit a Notification of Compliance Status according to Rule 40 CFR 63.9(h)(2)(ii).
- For each compliance demonstration required in Table 5 of 40 CFR 63 Subpart ZZZZ (**condition K.11 of this subsection**) that does not include a performance test, the owner or operator must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
- [40 CFR 63.6645(h)]**
- K.31 Reporting Requirements: The Permittee shall submit Semiannual Compliance Report as specified in **condition K.32** of this subsection. The report must contain the following information:
- The results of the annual compliance demonstration, if conducted during the reporting period.
- [40 CFR 63.6650(a) and (c), Table 7 of 40 CFR 63 Subpart ZZZZ]**

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K.32 Semiannual Compliance Report: The permittee shall submit each report required in **Condition K.31 of this subsection** by the dates as specified below:

- (a) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date as specified in **Condition K.7 of this subsection** 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.
- (b) 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 as specified in **Condition K.7 of this subsection**.
- (c) 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.
- (d) 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.

[40 CFR 63.6650(b)(1) – (4)]

K.33 Compliance Report: When there were deviations: If the emissions units had a deviation from any emission limitation or operating limitation during the reporting period, the report shall contain following information:

- (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 there was 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 § 63.6605(b), including actions taken to correct a malfunction.
- (5) When there were no deviations: If there are no deviations from any emission limitations or operating limitations that apply to the emissions units, the report shall contain 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 CPMS was out-of-control, as specified in 40 CFR 63.8(c)(7), the report shall contain a statement that there were not periods during which the CPMS was out-of-control during the reporting period

[40 CFR 63.6650(c)]

K.34 For each deviation from an emission or operating limitation occurring for a stationary RICE where the permittee is using a CMS to comply with the emission and operating limitations in this subpart, the permittee must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

- (a) Company name and address.
- (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (c) Date of report and beginning and ending dates of the reporting period.
- (d) If there was 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 § 63.6605(b), including actions taken to correct a malfunction
- (e) The date and time that each malfunction started and stopped.
- (f) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
- (g) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).

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- (h) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
- (i) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
- (j) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- (k) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- (l) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
- (m) A brief description of the stationary RICE.
- (n) A brief description of the CMS.
- (o) The date of the latest CMS certification or audit.
- (p) A description of any changes in CMS, processes, or controls since the last reporting period.

[40 CFR 63.6650(e), and 40 CFR 63.6650(c)(1) – (4)]

K.35 Title V Semi-Annual Report: The permittee must report all deviations as defined in this permit 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 the permittee submits a Compliance report pursuant to Table 7 40 CFR 63 Subpart ZZZZ 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.

[40 CFR 63.6656(f)]**RECORDKEEPING REQUIREMENTS**

K.36 Fuel consumption and Hours of Operation monitoring: Within the first 15 days of each month, the permittee shall record in a written log the following information:

- Million cubic feet of natural gas consumed for the previous month of operation;
- Million cubic feet of natural gas consumed for the previous consecutive 12 months of operation
- Hours of operation for the previous month of operation, and
- Hours of operation for the previous consecutive 12 months of operation.

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K.37 The permittee must keep the records as specified below.

- (1) A copy of each notification and report that the permittee submitted to comply with this permit, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in 40 CFR 63.10(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 CFR 63.10(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.

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For each CPMS, the permittee must maintain the following records.

- (1) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
 - (2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
 - (3) Requests for alternatives to the relative accuracy test for CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.
- [40 CFR 63.6655(a) and (b)]**

K.38 The permittee must keep the records required in Table 6 of 40 CFR 63 Subpart ZZZZ (**CONDITION K.24 of this subsection**) to show continuous compliance with each emission or operating limitation that applies to the emissions units.

K.39 Duration and Form of the Records: The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).

As specified in § 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

The permittee 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 § 63.10(b)(1).

[40 CFR 63.6660]

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 HHHHHH	National Emission Standard for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
D	Air Pollutant Emission Factors – FIT Center
E	Compliance Procedures – FIT Center
F	Emissions Factors For NO _x And CO at Various Loads During Testing Of FT 4000 Gas Turbines (EU 090)

APPENDIX A
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- 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.

APPENDIX A
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- 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.]**

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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 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 1. One Point: Semiannually 2. Check after each test series	Spirometer or calibrated wet test or dry gas test meter Comparison check	2% 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

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

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.
 - I. The ports shall be capable of being sealed when not in use.
 - II. 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.
 - III. 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.
 - I. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
 - II. On circular stacks with two sampling ports, the platform shall extend at least 110 degrees around the stack.
 - III. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
 - IV. 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.
 - I. 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.
 - II. Walkways over free-fall areas shall be equipped with safety rails and toeboards.
 - (f) Electrical Power.

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- I. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
 - II. 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.
- I. 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.
 - II. A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
 - III. 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:

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- 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.]**
- 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.]**

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- 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.]**

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- 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 HHHHHH**National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources****What This Subpart Covers****§ 63.11169 What is the purpose of this subpart?**

Except as provided in paragraph (d) of this section, this subpart establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in any of the activities in paragraphs (a) through (c) of this section. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards contained herein.

(a) Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes;

(b) Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations;

(c) Spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.

(d) This subpart does not apply to any of the activities described in paragraph (d)(1) through (6) of this section.

(1) Surface coating or paint stripping performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(2) Surface coating or paint stripping of military munitions, as defined in §63.11180, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or equipment directly and exclusively used for the purposes of transporting military munitions.

(3) Surface coating or paint stripping performed by individuals on their personal vehicles, possessions, or property, either as a hobby or for maintenance of their personal vehicles, possessions, or property. This subpart also does not apply when these operations are performed by individuals for others without compensation. An individual who spray applies surface coating to more than two motor vehicles or pieces of mobile equipment per year is subject to the requirements in this subpart that pertain to motor vehicle and mobile equipment surface coating regardless of whether compensation is received.

(4) Surface coating or paint stripping that meets the definition of “research and laboratory activities” in §63.11180.

(5) Surface coating or paint stripping that meets the definition of “quality control activities” in §63.11180.

(6) Surface coating or paint stripping activities that are covered under another area source NESHAP.

§ 63.11170 Am I subject to this subpart?

(a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of this section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:

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(1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.

(2) Perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in §63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.

(3) Perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180.

(b) An area source of HAP is a source of HAP that is not a major source of HAP, is not located at a major source, and is not part of a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year, or emit any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

§ 63.11171 How do I know if my source is considered a new source or an existing source?

(a) This subpart applies to each new and existing affected area source engaged in the activities listed in §63.11170, with the exception of those activities listed in §63.11169(d) of this subpart.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (6) of this section. Not all affected sources will have all of the items listed in paragraphs (b)(1) through (6) of this section.

(1) Mixing rooms and equipment;

(2) Spray booths, ventilated prep stations, curing ovens, and associated equipment;

(3) Spray guns and associated equipment;

(4) Spray gun cleaning equipment;

(5) Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint; and

(6) Equipment used for paint stripping at paint stripping facilities using paint strippers containing MeCl.

(c) An affected source is a new source if it meets the criteria in paragraphs (c)(1) and (c)(2) of this section.

(1) You commenced the construction of the source after September 17, 2007 by installing new paint stripping or surface coating equipment. If you purchase and install spray booths, enclosed spray gun cleaners, paint stripping

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equipment to reduce MeCl emissions, or purchase new spray guns to comply with this subpart at an existing source, these actions would not make your existing source a new source.

(2) The new paint stripping or surface coating equipment is used at a source that was not actively engaged in paint stripping and/or miscellaneous surface coating prior to September 17, 2007.

(d) An affected source is reconstructed if it meets the definition of reconstruction in §63.2.

(e) An affected source is an existing source if it is not a new source or a reconstructed source.

General Compliance Requirements**§ 63.11172 When do I have to comply with this subpart?**

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) and (b) of this section.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is after September 17, 2007, the compliance date is January 9, 2008.

(2) If the initial startup of your new or reconstructed affected source occurs after January 9, 2008, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is January 10, 2011.

§ 63.11173 What are my general requirements for complying with this subpart?

(a) Each paint stripping operation that is an affected area source must implement management practices to minimize the evaporative emissions of MeCl. The management practices must address, at a minimum, the practices in paragraphs (a)(1) through (5) of this section, as applicable, for your operations.

(1) Evaluate each application to ensure there is a need for paint stripping (e.g., evaluate whether it is possible to re-coat the piece without removing the existing coating).

(2) Evaluate each application where a paint stripper containing MeCl is used to ensure that there is no alternative paint stripping technology that can be used.

(3) Reduce exposure of all paint strippers containing MeCl to the air.

(4) Optimize application conditions when using paint strippers containing MeCl to reduce MeCl evaporation (e.g., if the stripper must be heated, make sure that the temperature is kept as low as possible to reduce evaporation).

(5) Practice proper storage and disposal of paint strippers containing MeCl (e.g., store stripper in closed, air-tight containers).

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(b) Each paint stripping operation that has annual usage of more than one ton of MeCl must develop and implement a written MeCl minimization plan to minimize the use and emissions of MeCl. The MeCl minimization plan must address, at a minimum, the management practices specified in paragraphs (a)(1) through (5) of this section, as applicable, for your operations. Each operation must post a placard or sign outlining the MeCl minimization plan in each area where paint stripping operations subject to this subpart occur. Paint stripping operations with annual usage of less than one ton of MeCl, must comply with the requirements in paragraphs (a)(1) through (5) of this section, as applicable, but are not required to develop and implement a written MeCl minimization plan.

(c) Each paint stripping operation must maintain copies of annual usage of paint strippers containing MeCl on site at all times.

(d) Each paint stripping operation with annual usage of more than one ton of MeCl must maintain a copy of their current MeCl minimization plan on site at all times.

(e) Each motor vehicle and mobile equipment surface coating operation and each miscellaneous surface coating operation must meet the requirements in paragraphs (e)(1) through (e)(5) of this section.

(1) All painters must be certified that they have completed training in the proper spray application of surface coatings and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph (f) of this section. The spray application of surface coatings is prohibited by persons who are not certified as having completed the training described in paragraph (f) of this section. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph.

(2) All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure that meets the requirements of paragraph (e)(2)(i) of this section and either paragraph (e)(2)(ii), (e)(2)(iii), or (e)(2)(iv) of this section.

(i) All spray booths, preparation stations, and mobile enclosures must be fitted with a type of filter technology that is demonstrated to achieve at least 98-percent capture of paint overspray. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992" (incorporated by reference, see §63.14 of subpart A of this part). The test coating for measuring filter efficiency shall be a high solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air-atomized spray gun operating at 40 pounds per square inch (psi) air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement. The requirements of this paragraph do not apply to waterwash spray booths that are operated and maintained according to the manufacturer's specifications.

(ii) Spray booths and preparation stations used to refinish complete motor vehicles or mobile equipment must be fully enclosed with a full roof, and four complete walls or complete side curtains, and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains. However, if a spray booth is fully enclosed and has seals on all doors and other openings and has an automatic

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pressure balancing system, it may be operated at up to, but not more than, 0.05 inches water gauge positive pressure.

(iii) Spray booths and preparation stations that are used to coat miscellaneous parts and products or vehicle subassemblies must have a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the booth. The walls and roof of a booth may have openings, if needed, to allow for conveyors and parts to pass through the booth during the coating process.

(iv) Mobile ventilated enclosures that are used to perform spot repairs must enclose and, if necessary, seal against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray.

(3) All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated by the spray gun manufacturer to achieve transfer efficiency comparable to one of the spray gun technologies listed above for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (incorporated by reference, see §63.14 of subpart A of this part). The requirements of this paragraph do not apply to painting performed by students and instructors at paint training centers. The requirements of this paragraph do not apply to the surface coating of aerospace vehicles that involves the coating of components that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; to the application of coatings on aerospace vehicles that contain fillers that adversely affect atomization with HVLP spray guns; or to the application of coatings on aerospace vehicles that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).

(4) All paint spray gun cleaning must be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent. Spray gun cleaning may be done with, for example, hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of non-atomizing methods may also be used.

(5) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the emission standards in this section after you have requested approval to do so according to §63.6(g)(2).

(f) Each owner or operator of an affected miscellaneous surface coating source must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in §63.11180, are trained in the proper application of surface coatings as required by paragraph (e)(1) of this section. The training program must include, at a minimum, the items listed in paragraphs (f)(1) through (f)(3) of this section.

(1) A list of all current personnel by name and job description who are required to be trained;

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(2) Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in paragraphs (f)(2)(i) through (2)(iv) of this section.

(i) Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

(ii) Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.

(iii) Routine spray booth and filter maintenance, including filter selection and installation.

(iv) Environmental compliance with the requirements of this subpart.

(3) A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Owners and operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in paragraph (f)(2) of this section are not required to provide the initial training required by that paragraph to these painters.

(g) As required by paragraph (e)(1) of this section, all new and existing personnel at an affected motor vehicle and mobile equipment or miscellaneous surface coating source, including contract personnel, who spray apply surface coatings, as defined in §63.11180, must be trained by the dates specified in paragraphs (g)(1) and (2) of this section. Employees who transfer within a company to a position as a painter are subject to the same requirements as a new hire.

(1) If your source is a new source, all personnel must be trained and certified no later than 180 days after hiring or no later than July 7, 2008, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.

(2) If your source is an existing source, all personnel must be trained and certified no later than 180 days after hiring or no later than January 10, 2011, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.

(3) Training and certification will be valid for a period not to exceed five years after the date the training is completed, and all personnel must receive refresher training that meets the requirements of this section and be re-certified every five years.

[73 FR 1760, Jan. 9, 2008; 73 FR 8408, Feb. 13, 2008]

§ 63.11174 What parts of the General Provisions apply to me?

(a) Table 1 of this subpart shows which parts of the General Provisions in subpart A apply to you.

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(b) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 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.

Notifications, Reports, and Records**§ 63.11175 What notifications must I submit?**

(a) Initial Notification. If you are the owner or operator of a paint stripping operation using paint strippers containing MeCl and/or a surface coating operation subject to this subpart, you must submit the initial notification required by §63.9(b). For a new affected source, you must submit the Initial Notification no later than 180 days after initial startup or July 7, 2008, whichever is later. For an existing affected source, you must submit the initial notification no later than January 11, 2010. The initial notification must provide the information specified in paragraphs (a)(1) through (8) of this section.

(1) The company name, if applicable.

(2) The name, title, street address, telephone number, e-mail address (if available), and signature of the owner and operator, or other certifying company official;

(3) The street address (physical location) of the affected source and the street address where compliance records are maintained, if different. If the source is a motor vehicle or mobile equipment surface coating operation that repairs vehicles at the customer's location, rather than at a fixed location, such as a collision repair shop, the notification should state this and indicate the physical location where records are kept to demonstrate compliance;

(4) An identification of the relevant standard (i.e., this subpart, 40 CFR part 63, subpart HHHHHH);

(5) A brief description of the type of operation as specified in paragraph (a)(5)(i) or (ii) of this section.

(i) For all surface coating operations, indicate whether the source is a motor vehicle and mobile equipment surface coating operation or a miscellaneous surface coating operation, and include the number of spray booths and preparation stations, and the number of painters usually employed at the operation.

(ii) For paint stripping operations, identify the method(s) of paint stripping employed (e.g., chemical, mechanical) and the substrates stripped (e.g., wood, plastic, metal).

(6) Each paint stripping operation must indicate whether they plan to annually use more than one ton of MeCl after the compliance date.

(7) A statement of whether the source is already in compliance with each of the relevant requirements of this subpart, or whether the source will be brought into compliance by the compliance date. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in §63.11173(a) through (d) of this subpart. For surface coating operations, the relevant requirements are specified in §63.11173(e) through (g) of this subpart.

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(8) If your source is a new source, you must certify in the initial notification whether the source is in compliance with each of the requirements of this subpart. If your source is an existing source, you may certify in the initial notification that the source is already in compliance. If you are certifying in the initial notification that the source is in compliance with the relevant requirements of this subpart, then include also a statement by a responsible official with that official's name, title, phone number, e-mail address (if available) and signature, certifying the truth, accuracy, and completeness of the notification, a statement that the source has complied with all the relevant standards of this subpart, and that this initial notification also serves as the notification of compliance status.

(b) Notification of Compliance Status. If you are the owner or operator of a new source, you are not required to submit a separate notification of compliance status in addition to the initial notification specified in paragraph (a) of this subpart provided you were able to certify compliance on the date of the initial notification, as part of the initial notification, and your compliance status has not since changed. If you are the owner or operator of any existing source and did not certify in the initial notification that your source is already in compliance as specified in paragraph (a) of this section, then you must submit a notification of compliance status. You must submit a Notification of Compliance Status on or before March 11, 2011. You are required to submit the information specified in paragraphs (b)(1) through (4) of this section with your Notification of Compliance Status:

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in §63.11173(a) through (d). For surface coating operations, the relevant requirements are specified in §63.11173(e) through (g).

(3) The date of the Notification of Compliance Status.

(4) If you are the owner or operator of an existing affected paint stripping source that annually uses more than one ton of MeCl, you must submit a statement certifying that you have developed and are implementing a written MeCl minimization plan in accordance with §63.11173(b).

§ 63.11176 What reports must I submit?

(a) Annual Notification of Changes Report. If you are the owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, you are required to submit a report in each calendar year in which information previously submitted in either the initial notification required by §63.11175(a), Notification of Compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in §63.11173(a) through (d) or §63.11173(e) through (g) on the date of the report will be deemed to be a change. This includes notification when paint stripping affected sources that have not developed and implemented a written MeCl minimization plan in accordance with §63.11173(b) used more than one ton of MeCl in the previous calendar year. The annual notification of changes

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report must be submitted prior to March 1 of each calendar year when reportable changes have occurred and must include the information specified in paragraphs (a)(1) through (2) of this section.

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance.

(b) If you are the owner or operator of a paint stripping affected source that has not developed and implemented a written MeCl minimization plan in accordance with §63.11173(b) of this subpart, you must submit a report for any calendar year in which you use more than one ton of MeCl. This report must be submitted no later than March 1 of the following calendar year. You must also develop and implement a written MeCl minimization plan in accordance with §63.11173(b) no later than December 31. You must then submit a Notification of Compliance Status report containing the information specified in §63.11175(b) by March 1 of the following year and comply with the requirements for paint stripping operations that annually use more than one ton of MeCl in §§63.11173(d) and 63.11177(f).

§ 63.11177 What records must I keep?

If you are the owner or operator of a surface coating operation, you must keep the records specified in paragraphs (a) through (d) and (g) of this section. If you are the owner or operator of a paint stripping operation, you must keep the records specified in paragraphs (e) through (g) of this section, as applicable.

(a) Certification that each painter has completed the training specified in §63.11173(f) with the date the initial training and the most recent refresher training was completed.

(b) Documentation of the filter efficiency of any spray booth exhaust filter material, according to the procedure in §63.11173(e)(3)(i).

(c) Documentation from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces (89 cc) that does not meet the definition of an HVLP spray gun, electrostatic application, airless spray gun, or air assisted airless spray gun, has been determined by the Administrator to achieve a transfer efficiency equivalent to that of an HVLP spray gun, according to the procedure in §63.11173(e)(4).

(d) Copies of any notification submitted as required by §63.11175 and copies of any report submitted as required by §63.11176.

(e) Records of paint strippers containing MeCl used for paint stripping operations, including the MeCl content of the paint stripper used. Documentation needs to be sufficient to verify annual usage of paint strippers containing MeCl (e.g., material safety data sheets or other documentation provided by the manufacturer or supplier of the paint stripper, purchase receipts, records of paint stripper usage, engineering calculations).

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(f) If you are a paint stripping source that annually uses more than one ton of MeCl you are required to maintain a record of your current MeCl minimization plan on site for the duration of your paint stripping operations. You must also keep records of your annual review of, and updates to, your MeCl minimization plan.

(g) Records of any deviation from the requirements in §§63.11173, 63.11174, 63.11175, or 63.11176. These records must include the date and time period of the deviation, and a description of the nature of the deviation and the actions taken to correct the deviation.

(h) Records of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report.

§ 63.11178 In what form and for how long must I keep my records?

(a) If you are the owner or operator of an affected source, you must maintain copies of the records specified in §63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date, and may be kept off-site after that two year period.

Other Requirements and Information**§ 63.11179 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the 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 subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authority in §63.11173(e)(5) will not be delegated to State, local, or tribal agencies.

§ 63.11180 What definitions do I need to know?

Terms used in this subpart are defined in the Clean Air Act, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

Administrator means, for the purposes of this rulemaking, the Administrator of the U.S. Environmental Protection Agency or the State or local agency that is granted delegation for implementation of this subpart.

Aerospace vehicle or component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

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Airless and air-assisted airless spray mean any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does not apply any atomizing compressed air to the paint before it leaves the paint nozzle. Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.

Appurtenance means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lamp posts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

Architectural coating means a coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, or oil, from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means, for the purposes of this subpart, a material spray-applied to a substrate for decorative, protective, or functional purposes. For the purposes of this subpart, coating does not include the following materials:

- (1) Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances.
- (2) Paper film or plastic film that may be pre-coated with an adhesive by the film manufacturer.
- (3) Adhesives, sealants, maskants, or caulking materials.
- (4) Temporary protective coatings, lubricants, or surface preparation materials.
- (5) In-mold coatings that are spray-applied in the manufacture of reinforced plastic composite parts.

Compliance date means the date by which you must comply with this subpart.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart.

Dry media blasting means abrasive blasting using dry media. Dry media blasting relies on impact and abrasion to remove paint from a substrate. Typically, a compressed air stream is used to propel the media against the coated surface.

Electrostatic application means any method of coating application where an electrostatic attraction is created between the part to be coated and the atomized paint particles.

Equipment cleaning means the use of an organic solvent to remove coating residue from the surfaces of paint spray guns and other painting related equipment, including, but not limited to stir sticks, paint cups, brushes, and spray booths.

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Facility maintenance means, for the purposes of this subpart, surface coating performed as part of the routine repair or renovation of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity. *Facility maintenance* also includes surface coating associated with the installation of new equipment or structures, and the application of any surface coating as part of janitorial activities. *Facility maintenance* includes the application of coatings to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. *Facility maintenance* also includes the refinishing of mobile equipment in the field or at the site where they are used in service and at which they are intended to remain indefinitely after refinishing. Such mobile equipment includes, but is not limited to, farm equipment and mining equipment for which it is not practical or feasible to move to a dedicated mobile equipment refinishing facility. Such mobile equipment also includes items, such as fork trucks, that are used in a manufacturing facility and which are refinished in that same facility. *Facility maintenance* does not include surface coating of motor vehicles, mobile equipment, or items that routinely leave and return to the facility, such as delivery trucks, rental equipment, or containers used to transport, deliver, distribute, or dispense commercial products to customers, such as compressed gas canisters.

High-volume, low-pressure (HVLP) spray equipment means spray equipment that is permanently labeled as such and used to apply any coating by means of a spray gun which is designed and operated between 0.1 and 10 pounds per square inch gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

Initial startup means the first time equipment is brought online in a paint stripping or surface coating operation, and paint stripping or surface coating is first performed.

Materials that contain HAP or HAP-containing materials mean, for the purposes of this subpart, materials that contain 0.1 percent or more by mass of any individual HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4), or 1.0 percent or more by mass for any other individual HAP.

Military munitions means all ammunition products and components produced or used by or for the U.S. Department of Defense (DoD) or for the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the National Nuclear Security Administration (NNSA), U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, biological weapons, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, nonnuclear components of nuclear weapons, wholly inert ammunition products, and all devices and components of any items listed in this definition.

Miscellaneous parts and/or products means any part or product made of metal or plastic, or combinations of metal and plastic. Miscellaneous parts and/or products include, but are not limited to, metal and plastic components of the following types of products as well as the products themselves: motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; automobiles and light duty trucks at automobile and light duty truck assembly plants; boats; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products.

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Miscellaneous surface coating operation means the collection of equipment used to apply surface coating to miscellaneous parts and/or products made of metal or plastic, including applying cleaning solvents to prepare the surface before coating application, mixing coatings before application, applying coating to a surface, drying or curing the coating after application, and cleaning coating application equipment, but not plating. A single surface coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating material is applied to a given part. A surface coating operation includes all other steps (such as surface preparation with solvent and equipment cleaning) in the affected source where HAP are emitted from the coating of a part. The use of solvent to clean parts (for example, to remove grease during a mechanical repair) does not constitute a miscellaneous surface coating operation if no coatings are applied. A single affected source may have multiple surface coating operations. Surface coatings applied to wood, leather, rubber, ceramics, stone, masonry, or substrates other than metal and plastic are not considered miscellaneous surface coating operations for the purposes of this subpart.

Mobile equipment means any device that may be drawn and/or driven on a roadway including, but not limited to, heavy-duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaners, agriculture equipment, motor homes, and other recreational vehicles (including camping trailers and fifth wheels).

Motor vehicle means any self-propelled vehicle, including, but not limited to, automobiles, light duty trucks, golf carts, vans, and motorcycles.

Motor vehicle and mobile equipment surface coating means the spray application of coatings to assembled motor vehicles or mobile equipment. For the purposes of this subpart, it does not include the surface coating of motor vehicle or mobile equipment parts or subassemblies at a vehicle assembly plant or parts manufacturing plant.

Non-HAP solvent means, for the purposes of this subpart, a solvent (including thinners and cleaning solvents) that contains less than 0.1 percent by mass of any individual HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and less than 1.0 percent by mass for any other individual HAP.

Paint stripping and/or miscellaneous surface coating source or facility means any shop, business, location, or parcel of land where paint stripping or miscellaneous surface coating operations are conducted.

Paint stripping means the removal of dried coatings from wood, metal, plastic, and other substrates. A single affected source may have multiple paint stripping operations.

Painter means any person who spray applies coating.

Plastic refers to substrates containing one or more resins and may be solid, porous, flexible, or rigid. Plastics include fiber reinforced plastic composites.

Protective oil means organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Quality control activities means surface coating or paint stripping activities that meet all of the following criteria:

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(1) The activities associated with a surface coating or paint stripping operation are intended to detect and correct defects in the final product by selecting a limited number of samples from the operation, and comparing the samples against specific performance criteria.

(2) The activities do not include the production of an intermediate or final product for sale or exchange for commercial profit; for example, parts that are surface coated or stripped are not sold and do not leave the facility.

(3) The activities are not a normal part of the surface coating or paint stripping operation; for example, they do not include color matching activities performed during a motor vehicle collision repair.

(4) The activities do not involve surface coating or stripping of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity; that is, the activities are not facility maintenance.

Research and laboratory activities means surface coating or paint stripping activities that meet one of the following criteria:

(1) Conducted at a laboratory to analyze air, soil, water, waste, or product samples for contaminants, or environmental impact.

(2) Activities conducted to test more efficient production processes, including alternative paint stripping or surface coating materials or application methods, or methods for preventing or reducing adverse environmental impacts, provided that the activities do not include the production of an intermediate or final product for sale or exchange for commercial profit.

(3) Activities conducted at a research or laboratory facility that is operated under the close supervision of technically trained personnel, the primary purpose of which is to conduct research and development into new processes and products and that is not engaged in the manufacture of products for sale or exchange for commercial profit.

Solvent means a fluid containing organic compounds used to perform paint stripping, surface prep, or cleaning of surface coating equipment.

Space Vehicle means vehicles designed to travel beyond the limit of the earth's atmosphere, including but not limited to satellites, space stations, and the Space Shuttle System (including orbiter, external tanks, and solid rocket boosters).

Spray-applied coating operations means coatings that are applied using a hand-held device that creates an atomized mist of coating and deposits the coating on a substrate. For the purposes of this subpart, spray-applied coatings do not include the following materials or activities:

(1) Coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters).

(2) Surface coating application using powder coating, hand-held, non-refillable aerosol containers, or non-atomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.

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(3) Thermal spray operations (also known as metallizing, flame spray, plasma arc spray, and electric arc spray, among other names) in which solid metallic or non-metallic material is heated to a molten or semi-molten state and propelled to the work piece or substrate by compressed air or other gas, where a bond is produced upon impact.

Surface preparation or *Surface prep* means use of a cleaning material on a portion of or all of a substrate prior to the application of a coating.

Target HAP are compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).

Target HAP containing coating means a spray-applied coating that contains any individual target HAP that is an Occupational Safety and Health Administration (OSHA)–defined carcinogen as specified in 29 CFR 1910.1200(d)(4) at a concentration greater than 0.1 percent by mass, or greater than 1.0 percent by mass for any other individual target HAP compound. For the purpose of determining whether materials you use contain the target HAP compounds, you may rely on formulation data provided by the manufacturer or supplier, such as the material safety data sheet (MSDS), as long as it represents each target HAP compound in the material that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other target HAP compounds.

Transfer efficiency means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage. Coating solids means the nonvolatile portion of the coating that makes up the dry film.

Truck bed liner coating means any coating, excluding color coats, labeled and formulated for application to a truck bed to protect it from surface abrasion.

Table 1 to Subpart HHHHHH of Part 63—Applicability of General Provisions to Subpart HHHHHH of Part 63

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§63.1(a)(1)–(12)	General Applicability	Yes	
§63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability of subpart HHHHHH is also specified in §63.11170.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Applicability of Permit Program for Area Sources	Yes	(63.11174(b) of Subpart HHHHHH exempts area sources from the obligation to obtain Title V operating permits.
§63.1(c)(5)	Notifications	Yes	
§63.1(e)	Applicability of Permit Program to Major Sources Before Relevant Standard is Set	No	(63.11174(b) of Subpart HHHHHH exempts area sources from the obligation to obtain Title V operating permits.
§63.2	Definitions	Yes	Additional definitions are specified in §63.11180.
§63.3(a)–(c)	Units and Abbreviations	Yes	
§63.4(a)(1)–(5)	Prohibited Activities	Yes	
§63.4(b)–(c)	Circumvention/Fragmentation	Yes	
§63.5	Construction/Reconstructi	No	Subpart HHHHHH applies only to area sources.

APPENDIX HHHHHH

National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

Citation	Subject	Applicable to subpart HHHHHH	Explanation
	on of major sources		
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources	Yes	§63.11172 specifies the compliance dates.
§63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	§63.11172 specifies the compliance dates.
§63.6(e)(1)–(2)	Operation and Maintenance	Yes	
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No	No startup, shutdown, and malfunction plan is required by subpart HHHHHH.
§63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	
§63.6(f)(2)–(3)	Methods for Determining Compliance	Yes	
§63.6(g)(1)–(3)	Use of an Alternative Standard	Yes	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart HHHHHH does not establish opacity or visible emission standards.
§63.6(i)(1)–(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7	Performance Testing Requirements	No	No performance testing is required by subpart HHHHHH.
§63.8	Monitoring Requirements	No	Subpart HHHHHH does not require the use of continuous monitoring systems.
§63.9(a)–(d)	Notification Requirements	Yes	§63.11175 specifies notification requirements.
§63.9(e)	Notification of Performance Test	No	Subpart HHHHHH does not require performance tests.
§63.9(f)	Notification of Visible Emissions/Opaicity Test	No	Subpart HHHHHH does not have opacity or visible emission standards.
§63.9(g)	Additional Notifications When Using CMS	No	Subpart HHHHHH does not require the use of continuous monitoring systems.
§63.9(h)	Notification of Compliance Status	No	§63.11175 specifies the dates and required content for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	§63.11176(a) specifies the dates for submitting the notification of changes report.
§63.10(a)	Recordkeeping/Reporting	Yes	

APPENDIX HHHHHH

National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

Citation	Subject	Applicable to subpart HHHHHH	Explanation
	—Applicability and General Information		
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §63.11177.
§63.10(b)(2)(i)–(xi)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	No	Subpart HHHHHH does not require startup, shutdown, and malfunction plans, or CMS.
§63.10(b)(2)(xii)	Waiver of recordkeeping requirements	Yes	
§63.10(b)(2)(xiii)	Alternatives to the relative accuracy test	No	Subpart HHHHHH does not require the use of CEMS.
§63.10(b)(2)(xiv)	Records supporting notifications	Yes	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§63.10(c)	Additional Recordkeeping Requirements for Sources with CMS	No	Subpart HHHHHH does not require the use of CMS.
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.11176.
§63.10(d)(2)–(3)	Report of Performance Test Results, and Opacity or Visible Emissions Observations	No	Subpart HHHHHH does not require performance tests, or opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes	
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	Subpart HHHHHH does not require startup, shutdown, and malfunction reports.
§63.10(e)	Additional Reporting requirements for Sources with CMS	No	Subpart HHHHHH does not require the use of CMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart HHHHHH does not require the use of flares.
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses of State Air Pollution Control Agencies and EPA Regional Offices	Yes	
§63.14	Incorporation by Reference	Yes	Test methods for measuring paint booth filter efficiency and spray gun transfer efficiency in §63.11173(e)(2) and (3)

APPENDIX HHHHHH**National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources**

Citation	Subject	Applicable to subpart HHHHHH	Explanation
			are incorporated and included in §63.14.
§63.15	Availability of Information/Confidentiality	Yes	
§63.16(a)	Performance Track Provisions—reduced reporting	Yes	
§63.16(b)–(c)	Performance Track Provisions—reduced reporting	No	Subpart HHHHHH does not establish numerical emission limits.

APPENDIX D

AIR POLLUTANT EMISSIONS FACTORS FOR DIFFERENT MATERIALS – FIT Center

Pollutant	Engineered Wood Products		Wood Waste Products		Untreated Wood Products		Fuel Oil		Methane	
	Emission Factor	Unit	Emission Factor	Unit	Emission Factor	Unit	Emission Factor	Unit	Emission Factor	Unit
PM ^[1]	0.41	lb/MM Btu	0.42	lb/MM Btu	0.42	lb/MM Btu	1.70	lb/1000 gals	7.60	lb/MMCF
PM-10 ¹	0.35	lb/MM Btu	0.38	lb/MM Btu	0.38	lb/MM Btu	1.70	lb/1000 gals	7.60	lb/MMCF
NOX	1.29	lb/MM Btu	0.49	lb/MM Btu	0.49	lb/MM Btu	18.00	lb/1000 gals	100.00	lb/MMCF
VOC	0.03	lb/MM Btu	0.02	lb/MM Btu	0.02	lb/MM Btu	2.49	lb/1000 gals	5.50	lb/MMCF
CO	0.61	lb/MM Btu	0.60	lb/MM Btu	0.60	lb/MM Btu	5.00	lb/1000 gals	84.00	lb/MMCF
SO2	0.00	lb/MM Btu	0.03	lb/MM Btu	0.03	lb/MM Btu	100.00	lb/1000 gals	0.60	lb/MMCF
Lead			0.00	lb/MM Btu	0.00	lb/MM Btu				
Total HAPs	0.05	lb/MM Btu	0.04	lb/MM Btu	0.04	lb/MM Btu	0.04	lb/1000 gals	0.00	
Pollutant	Vegetable Oil		Heptane		Plastic		Isopropyl Alcohol		Propane	
	Emission Factor	Unit	Emission Factor	Unit	Emission Factor	Unit	Emission Factor	Unit	Emission Factor	Unit
PM	1.70	lb/1000 gals	0.70	lb/1000 gals	100.00	lb/ton	0.70	lb/1000 gals	0.70	lb/1000 gals
PM-10	1.70	lb/1000 gals	0.70	lb/1000 gals	100.00	lb/ton	0.70	lb/1000 gals	0.70	lb/1000 gals
NOX	18.00	lb/1000 gals	13	lb/1000 gals	4.00	lb/ton	13	lb/1000 gals	13	lb/1000 gals
VOC	2.49	lb/1000 gals	1.0	lb/1000 gals	32.00	lb/ton	1.0	lb/1000 gals	1.0	lb/1000 gals
CO	5.00	lb/1000 gals	8	lb/1000 gals	125.00	lb/ton	8	lb/1000 gals	8	lb/1000 gals
SO2	100.00	lb/1000 gals	0.016	lb/1000 gals	0.00	lb/ton	0.016	lb/1000 gals	0.016	lb/1000 gals
Lead	0.00	lb/1000 gals			0.00	lb/ton				
Total HAPs	4.09E-02	lb/1000 gals			0.04	lb/ton				

Note: Heat input of wood products is 16 MMBtu/ton; heat input of No.2 fuel oil is 138.5 MMBtu/1000 gallons; heat input of vegetable oil is 136 MMBtu/1000 gallons.

^[1] Scrubber's control efficiency is assumed at 90%. For other pollutants, the control efficiency is assumed zero.

APPENDIX E

Compliance Procedures for FIT Center

APPENDIX E

FIT Center -- Compliance Procedures [1]

Compliance will be demonstrated by using the amount of each fuel burned multiplied by the appropriate emission factors included in Appendix B. The amount of each fuel burned will be determined by using both mass balance and engineering judgment.

For heptane, alcohols and fuel oil

The emissions will be calculated by using mass balance. The amount of each fuel added to a test will be weighed and the amount of each fuel sent out as liquid waste will be subtracted off from the amount used and it will be assumed that the difference was emitted

- a. Fuel burned = (weight of initial fuel used)- (weight of fuel sent out as waste)

For test involving just one type of solid fuel

The emissions will be calculated by using mass balance. The amount of each fuel added to a test will be weighed. The facility will then either

- 2 Assume that all of the material was burned
 - a. Fuel burned = weight of initial fuel used
- 3 Use engineering judgment to estimate the amount of the product was burned and then subtract that from the initial material in the test;
 - a. Fuel burned = (weight of fuel used) – (estimate of fuel burned based on engineering judgment); or
- 4 Weigh the material after the test, assume all of the suppressant that was used remains on the material burned and subtract the final weight from the initial weight. This will require measuring the amount of suppressant that was used.
 - a. Fuel burned = (weight of fuel used) – (weight of material after burn complete) – (weight of suppressant used)

For tests involving multiple fuels

Some of the test will require evaluating how a suppressant works in an office or home setting. These types of tests may include office chairs, tables, rugs, drapes, mattresses or other material that contains multiple fuel types and non flammable items such as metals. It will be necessary to determine how much of each type of fuel is included in each test, and then use the methodologies above to determine how

[1]As the facility gains experience with operations and fuel mixes, these procedures may be revised with Palm Beach County Health Department approval.

much of each fuel was actually consumed. The facility believes there are two ways to determine the amount of each fuel in the test.

1. The first way would be to estimate the amount of each fuel using engineering judgment.
2. The second way would be to take apart items such as a mattress or a chair being used and weigh the amount of each fuel and non combustible included in the product.
3. The facility plans to evaluate both methods initially and develop a library of fuel mixes based on the product and compare the actual weights to the estimated weights of each product. Over time, the facility hopes to use the library along with engineering judgment to calculate the weight percentage of each fuel in the test.

APPENDIX F
EMISSIONS FACTORS FOR NO_x and CO AT VARIOUS LOADS
DURING TESTING OF FT4000 GAS TURBINES (EU 090)

FT4000 Testing and Emissions Factors for NO_x and CO at various loads

FT4000 Test Condition	Load	Heat Input (MMBtu/hr)	Carbon Monoxide Emissions (lb/hr)	Nitrogen Oxides Emissions (lb/hr)
Base load, wet injection	100	638.9	98	51
75 percent power, wet injection	75	450.5	135	36
50 percent power, wet injection	50	297.9	136	24
25 percent power, wet injection	25	161.2	89	13
Base load, dry	100	559.9	12	316
75 percent power, dry	75	401.6	10	160
50 percent power, dry	50	326.8	11	85
25 percent power, dry	25	147.2	12	40
Idle, dry	0	53.8	9	7