M E M O R A N D U M

DATE: June 25, 2013

TO: Richard D. Garrity, Ph.D.

FROM: Stephen Hathaway, P.E. **THRU:** Diana M. Lee, P.E.

SUBJECT: FINAL Non-Title V Air Construction Permit and Concurrently Issued Air Operation Permit United States Air Force - MacDill Air Force Base Permit No.: 0570141-009-AO/010-AC

Attached is FINAL Air Construction Permit No. 0570141-010-AC and Air Operation Permit No. 0570141-009-AO to establish MacDill Air Force Base (AFB) as a Synthetic non-Title V source from its current Title V source status, based on the limited operation of their emergency generators. The air construction permit is being processed concurrently with the non-Title V operation permit, since no additional emissions testing is required due to the fact that MacDill AFB maintains manufacturer's emissions certifications for all stationary internal combustion engines, as required under 40 CFR 60, Subpart IIII (*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*). Permit No. 0570141-009-AO incorporates Permit No. 0570141-010-AC into the facility's non-Title V air operation permit.

The stationary emergency generators/engines are not subject to 40 CFR 63, Subpart ZZZZ (*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*) since they are either "new" engines subject to 40 CFR 60, Subpart IIII or are considered to be existing institutional emergency engines under 40 CFR 63.6585(f)(3).

In order to limit the PTE of the facility and classify the facility as a Synthetic non-Title V source, the applicant requested a limitation of 100 hours per year for all their stationary emergency engines. The facility-wide NOx PTE (worst case pollutant), including all the natural gas-fired external combustion heating units, is therefore being reduced from 110.5 tons/yr to 86.3 tons per year, making the facility a non-Title V source.

The DRAFT non-Title V Air Construction Permit package, including the public notice was issued

on May 22, 2013. Comments were received from the applicant's consultant, The Ash Group, Inc. on June 4, 2013 in regards to the DRAFT AC permit. The facility published the "Public Notice of Intent to Issue Permits" in The Tampa Tribune on June 6, 2013. No comments were received from the general public since the public notice was published.

Based on EPC staff review of the comments submitted on June 4th, 2013, EPC staff does not consider the changes as a result of the comments to be significant enough to warrant the issuance of a REVISED DRAFT permit and another public notice. Therefore, after review and discussion with MacDill AFB and their consultant, the non-Title V air construction and air operation permits are being issued as FINAL permits, with the associated minor changes reflected accordingly. The comments and responses are summarized in the attached Final Determination.

Based on our review, we recommend the issuance of the FINAL AC/AO permit.

SRH: 0570141-009-AO/010-AC

FINAL DETERMINATION

FOR

United States Air Force - MacDill Air Force Base

Hillsborough County

Non-Title V Construction Permit and Air Operation Permit

Application Number

0570141-010-AC and 0570141-009-AO

Environmental Protection Commission of

Hillsborough County

Tampa, FL

June 25, 2013

The Environmental Protection Commission of Hillsborough County mailed a public notice package on May 22, 2013 that included the Intent to Issue non-Title V Permit Nos. 0570141-010-AC/009-AO to United States Air Force – MacDill Air Force Base located at 8208 Hangar Loop Drive, Tampa, FL 33621. The concurrently issued AC/AO permit is to establish MacDill Air Force Base as a Synthetic non-Title V source from its current Title V major source status.

Comments were received from the applicant's consultant, The Ash Group, Inc. on June 4, 2013 in regards to the DRAFT AC permit. The comments will not be restated but are summarized below:

Comment No. 1

The VE testing required by EPCHC seems excessive and costly. Any additional requirements to run the engines above the required manufacturer and Air Force-required maintenance and readiness testing could require MacDill AFB to modify the contract to provide additional engine maintenance staff. Alternatively, if additional funding is not available for more contractor staff, the additional VE burden could jeopardize the required manufacturer and Air Force maintenance and readiness testing program.

Since these engines are utilized so infrequently and there are similarities in all the engines on base, we would like to offer the following reasonable alternative VE testing programs:

A. Annual VE testing based on representative samples from each manufacturer.
There are four manufacturers of engines on the base. We offer to test one engine from each manufacturer sample per year.

- Kohler - 8 engines on base
- Cummins/Onan - 6 engines on base
- Caterpiller - 7 engines on base
- Other - 2 Generac, 1 Katolight, 1 John Deere

B. Annual VE testing based on representative samples from engines within set kW ranges. The engines fall into four logical kW ranges. We offer to test one engine from each kW range per year.

- ≤100 KW - 5 engines within range
- 101-500 KW - 7 engines within range
- 501 -1500 KW - 6 engines within range
- ≥1501 KW - 7 engines with range

Either of these alternate approaches should provide the Commission with reasonable representative assurance that the engines are meeting the applicable visible emissions standards at least once per permit renewal cycle.

EPC Response

The permitted stationary RICE engines are subject to opacity limits under 40 CFR 60, Subpart IIII,

Rule 62-296.320(4)(b), F.A.C., and EPC's local rule (Chapter 1-3.52.1, Rules of the EPC). Chapter 1-3.52.3, Rules of the EPC, requires annual visible emissions tests in accordance with EPA Method 9 on the permitted sources subject to the general 20% opacity standard under Rule 62-296.320(4)(b), F.A.C. and Chapter 1-3.52.1, Rules of the EPC.

Table 2 of the non-Title V permit application, "Summary of Potential to Emit, Proposed Significant Units Subject to Subparts IIII & ZZZZ", listed 27 engines to be permitted under EU 016. Also, additional information was submitted by the facility on June 11, 2013 regarding an additional CI RICE engine subject to Subpart IIII that was not included in the non-Title V permit application. The engine is located at Building 89 and is a 300 kW Caterpillar Model C9 CI engine manufactured in model year 2011. This engine is subject to 40 CFR 60 Subpart IIII and has been included in the FINAL permit. Each of the proposed VE testing scenarios has a total of 25 engines. However, when including the new engine above, there will be a total of 28 Stationary RICE under EU 016, Stationary Emergency Compression Ignition Internal Combustion Engines (CI ICE) subject to 40 CFR 60, Subpart IIII.

EPC staff has reviewed each of the proposed VE testing scenarios, and believes that proposed Scenario B is the most representative alternative testing scenario, given the distribution of the engines among the power classes (kW ranges). While the engine manufacturer may have a bearing on the engines' exhaust opacity, all of these engines have been initially certified to meet EPA emissions standards. Therefore, Scenario B seems to be a reasonable approach to the testing of these emergency generators/engines. The permit has been revised to incorporate this testing scenario, as shown below:

14. The permittee shall test at least one engine from each of the following power classes for visible emissions (opacity) once per federal fiscal year (October 1 – September 30th).

    A) <100 kW - 6 engines within range
    B) 101-500 kW - 7 engines within range
    C) 501 -1500 kW - 8 engines within range
    D) >1501 kW - 7 engines with range

    However, for each power class that contains more than five engines, a rotating schedule shall be established so that at least one engine is tested per year, but all engines shall be tested at least once every five years. Submit two copies of the test data to the Air Management Division of the Environmental Protection Commission of Hillsborough County (EPCHC) within 45 days of such testing. Testing procedures shall be consistent with the requirements of Rule 62-297.310, F.A.C. Each test shall be performed using EPA Method 9 and shall be a minimum of 30 minutes in duration. The test shall be performed at the point of highest opacity. [Rules 62-297.310, and 62-4.070(3), F.A.C.; and Chapter 1-3.52(3), Rules of the EPC]

<u>Comment No. 2</u>
Our application requested the ability to add new emission sources (RICE subject to Subpart IIII)

by letter modification. This item was not addressed in the DRAFT permit. This is an excerpt from the application:

> "5. MacDill suggests that the five-year construction permit allow the addition of new emission sources via letter modification with revised emission calculations (utilizing and modifying Table 2) with attached supporting documentation such as cut sheets, emission certificates and other manufacturers information."

If this was intentionally left out of the DRAFT permit, please clarify why Hurlburt AFB (Facility ID No.: 0910064) and Eglin AFB (Facility 1D No.: 0910031) are allowed to add additional engines with prior notification and MacDill AFB is not.

<u>EPC Response</u>
During the inspection of MacDill AFB conducted on April 24, 2013, different permitting options were discussed with respect to the addition of RICE engines to the facility in the future. EPC staff explained that since the facility would be under a non-Title V (minor source) permit, the addition of any new engines may require an evaluation of the facility's potential to emit to ensure that the facility does not trigger major source status. If MacDill wants to install or replace an emergency generator/engine under the categorical exemption for stationary RICE under Rule 62-210.300(3)(a)35., F.A.C., then the facility shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes. MacDill, however, is still responsible for ensuring compliance with the Federal regulations under 40 CFR 60, Subparts IIII and JJJJ, and 40 CFR 63, Subpart ZZZZ.

On the other hand, pursuant to Rule 62-210.300(1)(a), F.A.C., if MacDill wants to install or replace an emergency generator/engine under the regulated emission unit (EU 016), an air construction permit shall be obtained prior to the installation or replacement of the emergency generator/engine.

With regard to the requested five-year construction permit to add additional permitted engines in the future, in accordance with Rule 62-210.300(1)(a), F.A.C., the construction permit shall be issued for a period of time sufficient to allow construction, reconstruction or modification of the facility or emissions unit or addition of the air pollution control equipment; and operation while the owner or operator of the new, reconstructed or modified facility or emissions unit or the new pollution control equipment is conducting tests or otherwise demonstrating initial compliance with the conditions of the construction permit. Typically, air construction permits are issued for a period of 1 to 2 years for projects that require actual construction of new or modified emissions sources and initial compliance testing. In accordance with Rule 62-4.160(2), F.A.C., the permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. In this case, since no specific information was included in the permit application on the future engines to be constructed and it is unknown how the addition of future engines will impact the facility's potential to emit at this time, a separate AC permit application will be required once the information on the specific engines becomes available.

Comment No. 3

We request that the Attachment B - List of Insignificant Emission Units or Activities be attached to the permit. Additionally, please make note of those items which have been decommissioned or removed from MacDill's common control. The DRAFT permit removed NOAA from common control, but not the WWTP. The WWTP operation and associated emergency generators have been privatized to U.S. Water and are no longer under the common control of MacDill AFB. In addition, we requested that the Aerospace Ground Equipment be removed from the insignificant source list because they are non-stationary non-road equipment. This item was not addressed in the DRAFT permit. This is an excerpt from Pages 5 and 6 of the Project Description in the application.

> *The Aerospace Ground Equipment (AGE) have been removed from the insignificant sources list because they are non-stationary non-road equipment. This equipment is regularly deployed wherever needed and does not remain at a particular site or location. They are often deployed off the Base. AGE Equipment has been exempt and removed from the air permits for Eglin, Patrick, and Tyndall Air Force Bases.*

EPC Response

While Title V permits have insignificant emissions units that can be added at permit renewal by review of the various letters submitted during the previous permit cycle, non-Title V permits inherently do not contain insignificant emissions units (emissions units are either permitted through an air construction permit or deemed exempt from air permitting). Insignificant emissions units, under Chapter 62-213 Operation Permits for Major Sources of Air Pollution, are those units that have been determined to be exempt from obtaining an air construction permit, in accordance with the procedures in Rule 62-4.040(1)(b), F.A.C, and are typically included in an appendix to the Title V permit.

However, Attachment B of the non-Title V permit application, dated 11/26/2012, will remain in the permit file for future review by EPC Compliance and Permitting staff. Please also note that Attachment B of the application does not include the AGE equipment, and there was no mention of this equipment in the DRAFT AC permit.

Also, with regard to the Wastewater Treatment Plant, Rule 62-210.200(139), F.A.C. defines "facility" as all of the emissions units which are located on one or more contiguous or adjacent properties, and which are under the control of the same person (or persons under common control). Since the Florida Governmental Utility Authority and the U.S. Water Resources Corporation took over the operation and maintenance of the WWTP in March 2011, the emissions units at the WWTP are no longer considered to be under MacDill's common control. A note has been added to the process description that the stationary and portable generators associated with the WWTP are no longer under MacDill's common control, therefore, they are no longer considered to be part of MacDill's facility. During the development of the DRAFT non-Title V construction permit, the four (4) stationary generators associated with the WWTP were not included in the permit, however, the seven (7) portable generators associated with the WWTP were inadvertently included in Attachment A, List of Exempt Engines of the DRAFT permit. These exempt portable generators

have been removed from Attachment A of the non-Title V permit. In addition, the facility-wide PTE has been revised accordingly, to reflect the removal of these portable engines.

Comment No. 4

The DRAFT permit references the applicability of Subpart IIII (40 CFR 89.113 by reference) opacity limits. Specifically, this regulatory citation is referenced in the technical evaluation and permit Specific Condition No. 6, as part of the regulatory authority. It is our understanding that Subpart IIII (40 CFR 89.113 by reference) specifically applies to the engine manufacturer, not the engine owner/operator. If this is the case, should this citation be stricken from the permit condition language? Please clarify.

EPC Response

40 CFR 60.4201 and 60.4202 incorporate 40 CFR 89.113 by reference as a requirement for engine manufacturers, to ensure that the engines are designed and constructed to meet the opacity standards set forth in 40 CFR 89.113. However, pursuant to 40 CFR 60.4211(g), if the owner or operator does not install, configure, operate, and maintain its engine and control device (if applicable) according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the owner or operator must you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

In addition, pursuant to the same rule, the owner or operator must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the owner or operator changes emission-related settings in a way that is not permitted by the manufacturer. Furthermore, under 60.4211, the owner or operator must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Therefore, while it does not appear initially that the opacity limits apply to the engine owner or operator as written in the text of the rule, the owner or operator must still comply with the emissions standards that the engines were designed to meet by the manufacturer on a continuous basis. Therefore, the rule citation will remain in the technical evaluation and permit.

Comment No. 5

The NEDS code stated in Section C. Project and Location states:

> *The project has been assigned NEDS Source Classification Code No. 2-02-001-02, Internal Combustion Engines, Electric Generation, Distillate Oil (Diesel).*

We believe that this is the wrong classification and request the NEDS code to be changed to institutional.

EPC Response

The change is being made as requested in the FINAL permit and will be reflected in the State's database as well. The new NEDS Source Classification Code is *2-03-001-01, Internal Combustion Engines, Commercial/Institutional, Distillate Oil (Diesel), Reciprocating.*

The "Public Notice of Intent to Issue Permits" was published on June 6, 2013 in The Tampa Tribune.

No comments were received from the general public since the Public Notice of Intent was published.

Based on EPC staff review of the comments submitted on June 4th, 2013, EPC staff does not consider the changes to the permit as a result of the comments to be significant enough to warrant the issuance of a REVISED DRAFT permit and another public notice. Therefore, after review and discussion with MacDill AFB and their consultant, the non-Title V air construction and air operation permits are being issued as FINAL permits, with the associated minor changes reflected accordingly.

The final action of the Environmental Protection Commission of Hillsborough County is to issue the FINAL AC/AO permits.

ENVIRONMENTAL PROTECTION COMMISSION OF
HILLSBOROUGH COUNTY, as Delegated by

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF PERMIT

Scott V. DeThomas, Colonel, USAF
Commander, 6th Air Mobility Wing
MacDill AFB
8208 Hangar Loop Drive, Suite 1
Tampa, FL 33621 /

Dear Colonel DeThomas: Re: Hillsborough County - AP

Enclosed is Permit Number No. 0570141-010-AC for the change in status of your facility from a Title V source to a non-Title V source of air pollution, by limiting the potential emissions of the emergency generators and other emergency engines, issued pursuant to Section 403.087, Florida Statutes. This permit is being co-issued with Air Operation Permit No. 0570141-009-AO.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the EPC in the Legal Department at 3629 Queen Palm Drive, Tampa, FL 33619; 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 from the date this Notice is filed with the clerk of the EPC.

Executed in Tampa, Florida.

Sincerely,

Richard D. Garrity, Ph.D.
Executive Director

cc: FDEP, Southwest District (via e-mail)
Janice Sands Ash, P.E. - The Ash Group, Inc.

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on _____ to the listed persons.

Clerk Stamp
FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated clerk, receipt of which is hereby acknowledged.

_____ _____
Clerk Date

PERMITTEE:	PERMIT/CERTIFICATION
Scott V. DeThomas, Colonel, USAF	Permit No.: 0570141-010-AC
Commander, 6th Air Mobility Wing	County: Hillsborough
MacDill Air Force Base	Expiration Date: June 25, 2014
8208 Hangar Loop Drive, Suite 1	Project: Initial Non-Title V Air
Tampa, FL 33621	Construction Permit

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 62-204, 62-210, 62-212, 62-296, 62-297, and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the EPC and made a part hereof and specifically described as follows:

This air construction permit establishes MacDill Air Force Base (AFB) as a Synthetic non-Title V source from its current Title V source status, based on the limited operation of the emergency generators at the facility. This permit is being issued concurrently with the non-Title V operation permit, since no additional emissions testing is required due to the fact that MacDill AFB maintains manufacturer's emissions certifications for all stationary internal combustion engines, as required under 40 CFR 60, Subpart IIII (*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*).

The facility is a military base and includes an airfield, associated aircraft maintenance and support activities, and a wide variety of military and non-military support operations. The base is comprised of multiple tenant units (United States Special Operations Command (USSOCOM), Joint Intelligence Center Central Command (JICCENT), Joint Communications Support Element (JCSE), etc.). Based on a determination from EPC dated December 22, 2008, MacDill AFB and its base tenant units, except for NOAA, should be grouped under the Standard Industrial Classification (SIC) for "National Security" and therefore are considered to be under common control for air permitting purposes.

The operations at NOAA (one paint booth, metalworking operation, and parts washer) were determined to be classified under a different SIC for "Weather Forecasters," and therefore were considered to be independent operations from MacDill AFB. As a result, the operations at NOAA were exempted from air permitting on June 2, 2010, due to the low level of emissions from its operations. In addition, the operation of the 1.2 MGD Wastewater Treatment Plant (WWTP) and the associated eleven (11) stationary and portable engines was privatized (acquired by the Florida Governmental Utility Authority and U.S. Water Resources Corporation) in March 2011, removing

the WWTP from MacDill's common control for air permitting purposes.

The emissions sources at MacDill AFB are predominantly emergency internal combustion engines and generators, with a total of 71 units, as well as multiple exempt sources such as natural gas-fired external combustion heating units, fuel storage tanks, parts washers, woodworking activities, painting and enclosed blasting operations, etc. Multiple changes have occurred at MacDill AFB since the issuance of the last Title V permit; several existing engines were decommissioned, several new engines were installed, and new buildings have been constructed along with the addition of the new engines. MacDill AFB has provided numerous notifications of the addition of generators, tanks, heaters etc., and the removal of other sources during this time period.

This construction permit also changes the grouping of the diesel-fired stationary compression ignition internal combustion engines that power the emergency generators or fire pumps at the facility. Previously, the engines at JICCENT, USSOCOM, and the Medical Clinic were identified as EU Nos. 013, 014, and 015, respectively, and the rest of the engines were considered insignificant emissions units under Rule 62-213.430(6)(a), F.A.C. In order to provide consistency, all 28 of the engines subject to 40 CFR 60, Subpart IIII are now being grouped under a single emission unit, EU 016, with multiple emission points under the emission unit. All of the other engines at the facility are being considered as existing institutional emergency engines, and have no regulatory requirements under 40 CFR Part 60 or 63. Therefore, all of the existing stationary institutional emergency engines are now being considered exempt from air permitting under the categorical exemption for stationary internal combustion engines (Rule 62-210.300(3)(a)35, F.A.C.) at the request of the applicant. That rule establishes a maximum collective annual fuel limit of 64,000 gallons of diesel fuel and 5,400 gallons of gasoline for all the engines claiming the exemption at the facility. In addition, the five (5) portable generators are considered to be exempt from air permitting pursuant to Rule 62-4.040(1)(b), F.A.C.

The NSPS for stationary internal combustion engines, 40 CFR 60, Subpart IIII, requires pollutant emission limits, opacity limits, a maximum diesel fuel sulfur content of 15 ppm (ULSD), and installation of a non-resettable hour meter on each engine, as well as maintenance, recordkeeping, and reporting requirements. The emission limits are met through engine certification provided by the respective engine manufacturers, so no further pollutant testing is required, unless the engine certification is otherwise suspended, revoked, or voided. The engines are also subject to opacity limits from Subpart IIII (40 CFR 89.113 by reference), Rule 62-296.320(4)(b), F.A.C., and EPC's local rule (Chapter 1-3.52.1, Rules of the EPC). Chapter 1-3.52.3, Rules of the EPC, requires annual visible emissions tests in accordance with EPA Method 9 on the permitted sources subject to the general 20% opacity standard under Rule 62-296.320(4)(b), F.A.C. and Chapter 1-3.52.1, Rules of the EPC. Therefore, annual visible emissions tests are being required for the permitted CI engines subject to 40 CFR 60, Subpart IIII in the non-Title V permit.

The stationary emergency generators/engines are not subject to 40 CFR 63, Subpart ZZZZ (*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*) since they are either "new" engines subject to 40 CFR 60, Subpart IIII or are considered to be existing institutional emergency engines under 40 CFR 63.6585(f)(3).

In order to limit the PTE of the facility and classify the facility as a non-Title V source, the applicant requested a limitation of 100 hours per year for all stationary emergency engines. The NOx PTE for the Subpart IIII engines is 41.8 tons per year. The facility-wide NO_X PTE, including the exempt external combustion heating units, is 86.3 tons per year.

Location: 8208 Hangar Loop Drive, Tampa

UTM: 17-353.50 E 3081.5 N NEDS NO: 0141

EU ID No. 016	Stationary Emergency Compression Ignition Internal Combustion Engines (CI ICE) subject to 40 CFR 60, Subpart IIII					
Building No.	**Facility Description**	**Model Year**	**Manufacturer**	**Model Number**	**Fuel**	**Rating (kW)**
STATIONARY EMERGENCY GENERATORS						
3	Base Ops	2009	Cummins/Onan	DSGAB-7568737	Diesel	125
11	CE Control	2007	Kohler	20REOZJB	Diesel	20
26	Fire Dept.	2008	Onan	DKAE-6042902	Diesel	20
89	JCSE	2011	Caterpillar	C9	Diesel	300
90	Temp CP & PX Term	2008	Onan	DSHAF-5985907	Diesel	100
156	USSOCOM	2009	Kohler	1500REOZDC	Diesel	1500
156	USSOCOM	2009	Kohler	1500REOZDC	Diesel	1500
156	USSOCOM	2009	Kohler	1500REOZDC	Diesel	1500
203	SEC FORCES FAC	2008	Cummins/Onan	D080172838	Diesel	500
261	Consolidated Comm. Fac.	2012	Kohler	1750REOZDD	Diesel	1750
497	USSOCOM	2008	Caterpillar	3512B	Diesel	1250
501	USSOCOM	2007	Kohler	1250REOZM	Diesel	1250
535	MARCENT	2008	Katolight	CD300PX6T3	Diesel	300
567	JICCENT CUP	2007	Caterpillar	3516C	Diesel	2000
567	JICCENT CUP	2007	Caterpillar	3516C	Diesel	2000
567	JICCENT CUP	2011	Caterpillar	3516C	Diesel	2000
567	JICCENT CUP	2011	Caterpillar	3516C	Diesel	2000
567	JICCENT CUP	2007	Caterpillar	3516C	Diesel	2000
567	JICCENT CUP	2007	Caterpillar	3516C	Diesel	2000
805	DISA	2010	Kohler	60REOZJC	Diesel	60
825	MSA	2008	Katolight	SD20F-J4T2	Diesel	20
861	JCSE	2006	Generac	SD130	Diesel	130
913	JCSE Squadron Fac	2011	Cummins/Onan	DQDAA-4835095	Diesel	250
913	JCSE	2011	Cummins/Onan	QSLR-G3 NR3	Diesel	250
1039	SOCCENT Cultural Engagement Group	2011	Kohler/Detroit Diesel	S60, 6063HV35	Diesel	550
1043	SOCCENT HQ	2010	Generac	SD600	Diesel	600
1041	Clinic CEP	2008	Caterpillar	3512C	Diesel	1500
EMERGENCY FIRE PUMP						
1115B	90 Day Accumulation Point Fire Pump	2006	John Deere	JU4H-UF10	Diesel	38

Replaces Permit Nos.: 0570141-008-AC/007-AV

SPECIFIC CONDITIONS:

1. A part of this permit is the attached General Conditions. [Rule 62-4.160, F.A.C.]

2. All applicable rules of the Environmental Protection Commission of Hillsborough County including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction. [Rule 62-4.070(7), F.A.C.]

3. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C., or any other requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]

4. 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.]

5. In order to limit the potential to emit for the stationary emergency CI engines, and establish the facility as a non-Title V source, the following restrictions shall apply: [Rules 62-4.070(3), 62-210.200(Potential-to-Emit), and 62-212.300(1)(d), F.A.C.; 40 CFR 60.4207 and 60.4211(f); and Construction Permit Application Received April 2, 2013]

A) The stationary emergency engines shall be fired on ultra-low sulfur diesel (ULSD) fuel only.
B) Each emergency engine shall not operate for more than a total of 100 hours per consecutive 12-month period, for the purposes of maintenance, testing, and emergency demand response. There is no time limit on the use of emergency stationary ICE in emergency situations.
C) The maximum capacity for each emergency generator or engine shall not exceed the ratings in the table on Page 3 of this permit.
D) The total fuel usage for all of the categorically exempt internal combustion engines at the facility shall not be more than 64,000 gallons per year of diesel fuel or 5,400 gallons per year of gasoline.

6. Visible emissions from the exhaust of each stationary emergency engine shall not exceed 20% opacity. [Rule 62-210.296.320(4)(b)1, F.A.C.; 40 CFR 60.4205(b) and 40 CFR 89.113(a); and Chapter 1-3.52.1., Rules of the EPC]

<u>40 CFR Part 60 Requirements</u>

7. Notwithstanding the specific requirements from NSPS detailed in this permit, these emissions units shall comply with all applicable requirements of 40 CFR 60 Subpart IIII, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800, F.A.C.]

SPECIFIC CONDITIONS:

8. Notwithstanding the specific requirements from NSPS detailed in this permit, these emissions units shall comply with all applicable requirements of 40 CFR 60 Subpart A, incorporated by reference. [Rules 62-4.030, 62-4.070(3) and 62-204.800, F.A.C.]

9. The Stationary Emergency Compression Ignition Internal Combustion Engines (CI ICE) subject to 40 CFR 60, Subpart IIII (EU 016) shall meet the following emissions standards:

A) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines shall comply with the emission standards in Table 1 to Subpart IIII, as summarized below:

Maximum Engine Power	**Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder – grams per kW-hr (g/BHP-hr)**			
	HC	**NO_X**	**CO**	**PM**
37≤kW<56		9.2 (6.9)		
130≤kW<225	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

B) 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 shall 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, as summarized below:

(1) For engines with a maximum engine power less than 37 kW (50 HP)

(i) Model year 2007;

Emission Standards – grams per kW-hr (g/BHP-hr)					
Rated Power (kW)	**Tier**	**Model Year[1]**	**NMHC + NOx**	**CO**	**PM**
19≤kW<37	Tier 2	2004	7.5 (5.6)	5.5 (4.1)	0.60 (0.44)

[1]The model years listed indicate the model years for which the specified tier of standards take effect.

(ii) Model year 2008 and later;

Model years	**NO_X+ NMHC**	**CO**	**PM**
2008-2012	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

SPECIFIC CONDITIONS:

(2) For engines with a maximum engine power greater than or equal to 37 kW (50 HP)

(i) Model year 2007 and later;

Emission Standards – grams per kW-hr (g/BHP-hr)					
Rated Power (kW)	**Tier**	**Model Year[1]**	**NMHC + NOx**	**CO**	**PM**
19≤kW<37	Tier 2	2004	7.5 (5.6)	5.5 (4.1)	0.60 (0.44)
37≤kW<75	Tier 2	2004	7.5 (5.6)	5.0 (3.7)	0.40 (0.30)
	Tier 3	2008	4.7 (3.5)	5.0 (3.7)	
75≤kW<130	Tier 3	2007	4.0 (3.0)	5.0 (3.7)	0.30 (0.22)
130≤kW≤560	Tier 3	2006	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)
kW>560	Tier 2	2006	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)

[1]The model years listed indicate the model years for which the specified tier of standards take effect.

C) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to Subpart IIII, for all pollutants, as summarized below:

Maximum Engine Power	Model year(s)	NMHC + NOx	CO	PM
37≤kW<56	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)

D) [RESERVED]

E) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in 60.4212 as specified below:

(1) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder

(2) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in (1)(i) and (2)(i) above must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where STD = The standard specified for that pollutant in 40 CFR 89.112

SPECIFIC CONDITIONS:

(3) Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines (1)(i) and (2)(i) above may follow the testing procedures specified in 60.4213 of Subpart IIII, as specified below:

(i) Each performance test must be conducted according to the requirements in 40 CFR 60.8 and under the requirements in Table 7 to Subpart IIII. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

Table 7 to Subpart IIII (Summarized)

Complying with the requirement to	You must	Using	According to the following requirements
Limit the concentration of NO_X in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
	ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2concentration must be made at the same time as the measurement for NO_X concentration.
	iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_X concentration.
	iv. Measure NO_X at the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO_X concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
	ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for PM concentration.
	iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
	iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

(ii) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c).

(iii) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

F) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year,

SPECIFIC CONDITIONS:

maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs A) through E) of this condition.

[40 CFR 60.4202, 60.4205, 60.4212, 60.4213, and 60.8]

10. The diesel fuel fired in the stationary emergency engines is subject to the following per-gallon standards: [40 CFR 60.4207(b) and 40 CFR 80.510(b)]

A) Sulfur content. 15 parts per million (ppm) maximum.
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.

11. The permittee shall install and maintain a non-resettable hour meter on each stationary emergency generator prior to startup of any new emergency generators or within 30 days of permit issuance for existing emergency generators not already equipped with such meters.
[Rule 62-4.070(3), F.A.C.; and 40 CFR 60.4209(a)]

12. The permittee shall operate the emergency stationary ICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, 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 paragraphs (1) through (3) of this condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under this Subpart IIII and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this condition for a maximum of 100 hours per year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).

(i) Emergency stationary ICE 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 Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state,

SPECIFIC CONDITIONS:

or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE 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 § 60.17), 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.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE 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 paragraph (2) of this condition. Except as provided in paragraph (3)(i) of this condition, the 50 hours per calendar 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.

(i) 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:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) 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.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

SPECIFIC CONDITIONS:

(E) 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.

(ii) [RESERVED]

[Rule 62-4.070(3), F.A.C.; 40 CFR 60.4211(f)]

13. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

Testing and Recordkeeping Requirements

14. The permittee shall test at least one engine from each of the following power classes for visible emissions (opacity) once per federal fiscal year (October 1 – September 30th).

A) ≤100 kW - 6 engines within range
B) 101-500 kW - 7 engines within range
C) 501 -1500 kW - 8 engines within range
D) ≥1501 kW - 7 engines with range

However, for each power class that contains more than five engines, a rotating schedule shall be established so that at least one engine is tested per year, but all engines shall be tested at least once every five years. Submit two copies of the test data to the Air Management Division of the Environmental Protection Commission of Hillsborough County (EPCHC) within 45 days of such testing. Testing procedures shall be consistent with the requirements of Rule 62-297.310, F.A.C. Each test shall be performed using EPA Method 9 and shall be a minimum of 30 minutes in duration. The test shall be performed at the point of highest opacity. [Rules 62-297.310, and 62-4.070(3), F.A.C.; and Chapter 1-3.52(3), Rules of the EPC]

15. Compliance with the testing requirements in Specific Condition No. 14 shall be determined using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A. [Rules 62-

SPECIFIC CONDITIONS:

4.070(3) and 62-297, F.A.C.]

16. Testing of emissions shall be conducted while the engines/generators are operating at capacity. Capacity is defined as 90-100% of rated capacity of each unit as specified on Page 3 of this permit. If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the EPC. Failure to clearly identify the specific unit being tested, including the building number, model and serial number, or failure to submit the fuel input rates and actual operating conditions, may invalidate the test. [Rules 62-4.070(3) and 62-297.310, F.A.C.]

17. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County 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 contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9, F.A.C]

18. The permittee shall maintain monthly records of the engines' operation in order to demonstrate compliance with Specific Condition No. 5. The records shall be maintained onsite for at least three years and shall be made available to any local, state, or federal air pollution agency. The records shall include as a minimum: [40 CFR 60.4214(b) and 60.4210(f); and Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C.]

A) Month, Year
B) Diesel fuel records demonstrating compliance with Specific Condition No.10
C) Hours of operation of each engine or generator (hours)
D) Monthly and rolling consecutive 12-month totals of hours of operation of each engine or generator (hours)
E) A copy of the manufacturer's engine certification, certificate of conformity, or in-use compliance tests results for engines that were not certified by the manufacturer for each engine subject to 40 CFR 60, Subpart IIII.
F) Manufacturers' engine labels which contain the information required by 40 CFR 60.4210(f) and 40 CFR 1039.135(b) starting with the engine model years as specified below:

Maximum Engine Power	Starting Model Year
56≤kW<130	2012
kW≥130	2011

SPECIFIC CONDITIONS:

G) 12-month rolling total of fuel usage for the internal combustion engines listed under Attachment A of this permit.

General Requirements

19. When the Environmental Protection Commission of Hillsborough County (EPC) after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable requirement or permit condition is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the EPC. For the purpose of confirming compliance with the emission limitations in this permit, the EPC may require the use of EPA Method 9 or other approved methods, as deemed necessary. [Rules 62-297.310(7)(b) and 62-4.070(3), F.A.C.]

20. The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200, F.A.C., Modification. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-210.300 and 62-4.070(3), F.A.C.]

A) Alteration or replacement of any equipment* or major component of such equipment.
B) Installation or addition of any equipment* which is a source of air pollution.

*Not applicable to routine maintenance, repair, or replacement of component parts of an air emissions unit.

21. If the permittee wishes to transfer this permit to another owner, an "Application for Transfer of Permit" (DEP Form 62-210.900(7)) shall be submitted, in duplicate, to the Environmental Protection Commission of Hillsborough County within 30 days after the sale or legal transfer of the permitted facility. [Rule 62-4.120, F.A.C.]

22. The use of property, facilities, equipment, processes, products, or compounds, or the commission of paint overspraying or any other act, that causes or materially contributes to a public nuisance is prohibited. [Hillsborough County Environmental Protection Act, Section 16, Chapter 84-446, Laws of Florida, as Amended.]

23. The permittee must submit to the Environmental Protection Commission of Hillsborough County each calendar year, a completed DEP Form 62-210.900(5), "Annual Operating Report (AOR) for Air Pollutant Emitting Facility", for the preceding calendar year. The AOR shall be submitted by April 1 of the following year. [Rule 62-210.370(3), F.A.C.]

PERMITTEE:
United States Air Force - MacDill AFB

PERMIT CERTIFICATION NO. 0570141-010-AC
PROJECT: Stationary Emergency Generators

SPECIFIC CONDITIONS:

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

_____
Richard D. Garrity, Ph.D.
Executive Director

-Placeholder for Air Operation Permit No. 0570141-009-AO-