

**RECIPROCATING INTERNAL COMBUSTION ENGINES
AIR GENERAL PERMIT REGISTRATION FORM**

RECEIVED

JAN 05 2010

Part II. Notification to Permitting Office **Bureau of Air Monitoring
& Mobile Sources**
(Detach and submit to appropriate permitting office; keep copy onsite)

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

0250683-004

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- Construct and operate a proposed new facility.
 Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

RE-REGISTRATION (for facilities currently using an air general permit) - Notification of intent to:

- Continue operating the facility after expiration of the current term of air general permit use.
 Continue operating the facility after a change of ownership.
 Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): _____
 No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

South Florida Water Management District

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

Pump Station S-331

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 19755 S.W. 168th Street (Lat: 25.36.40 / Long: 80.30.24)

City: Miami

County: Miami-Dade

Zip Code: 33187-0000

Facility Start-Up Date (Estimated start-up date of proposed new facility.)(N/A for existing facility)

Owner/Authorized Representative

Name and Position Title (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)

Print Name and Title: Fred Remen, Dept. Director, Field Operations-South, Operation & Maintenance

Owner/Authorized Representative Mailing Address

Organization/Firm: South Florida Water Management District

Street Address: 3301 Gun Club Road

City: West Palm Beach

County: Palm Beach

Zip Code: 33406-0000

Owner/Authorized Representative Telephone Numbers

Telephone: (561) 682-2124

Fax: (561) 681-6232

Cell phone (optional):

Facility Contact (If different from Owner/Authorized Representative)

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)

Print Name and Title: Jeffrey A. Smith, Lead Environmental Scientist

Facility Contact Mailing Address

Organization/Firm: South Florida Water Management District

Street Address: 3301 Gun Club Road

City: West Palm Beach

County: Palm Beach

Zip Code: 33406-0000

Facility Contact Telephone Numbers

Telephone: (561) 682-2516

Fax: (561) 681-6232


Cell phone (optional):

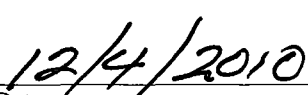
Owner/Authorized Representative Statement

This statement must be signed and dated by the person named above as owner or authorized representative

I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.

I will promptly notify the Department of any changes to the information contained in this registration form.


Signature


Date

Fuel Consumption

If this is an **initial registration** for reciprocating internal combustion engine operations, provide an estimate of the total amount of fuel expected to be consumed over a 12-month period. Note: the general permit limits fuel consumption by all reciprocating internal combustion engines at the facility to 20,000 gallons per year of gasoline, 250,000 gallons per year of diesel fuel, 1.15 million gallons per year of propane, 40 million standard cubic feet per year of natural gas, or an equivalent prorated amount if multiple fuels are used

If this is a **re-registration** for reciprocating internal combustion engine operations, provide the highest 12-month total fuel consumption amount, in appropriate units, for the last five years. Indicate the 12-month period over which this fuel consumption occurred.

58,081 gallons of No. 2 diesel fuel consumed from December 2009 thru November 2010.

Description of Facility

Below, or as an attachment to this form, provide a description of the reciprocating internal combustion engine operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

Three Caterpillar diesel engines powering three water pumps for the purpose of flood control. Pump station regulates the flow of surface water along the L-31N Canal to southern Miami-Dade County and the Everglades National Park. Existing three Detroit Diesel engines will be replaced with Caterpillar C-11 ACERT (Tier III), 325 hp diesel engines in early 2011.

Pump station maintains two 150 kW diesel powered emergency generators.

Routine maintenance performed in accordance with District SOPs and inspections by the US Army Corps of Engineers.

Existing Air General Permit: 0250683-003-AG



C11 ACERT™
Industrial Engine
Tier 3/Stage IIIA
242 bkW/325 bhp @ 2100 rpm

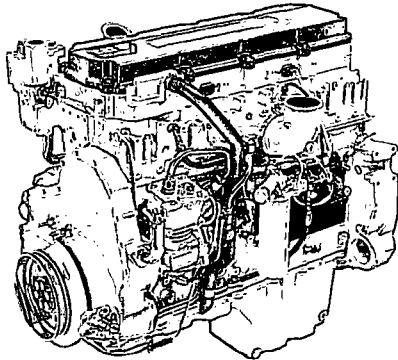


Image shown may not reflect actual engine

CATERPILLAR ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle Diesel

Bore.....	130.0 mm (5.12 in)
Stroke.....	140.0 mm (5.51 in)
Displacement.....	11.1 L (677.36 in ³)
Aspiration.....	Turbocharged Aftercooled
Compression Ratio.....	17.2:1
Rotation (from flywheel end).....	Counterclockwise
Weight, Net Dry (approximate kg, lb)....	930 kg (2050 lb)

FEATURES

Emissions

Meets U.S. EPA Tier 3, EU Stage IIIA emission requirements.

Worldwide Supplier Capability

Caterpillar

- Casts engine blocks, heads, and cylinder liners
- Machines critical components
- Assembles complete engine
- Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities
- Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

Testing

Prototype testing on every model:

- proves computer design
- verifies system torsional stability
- functionality tests every model

Every Caterpillar engine is dynamometer tested under full load to ensure proper engine performance.

Full Range of Attachments

Wide range of bolt-on system expansion attachments, factory designed and tested.

Unmatched Product Support Offered Through Worldwide Caterpillar Dealer Network

More than 1,500 dealer outlets

Caterpillar factory-trained dealer technicians service every aspect of your industrial engine

99.7% of parts orders filled within 24 hours worldwide

Caterpillar parts and labor warranty

Preventive maintenance agreements available for repair before failure options

Scheduled Oil Sampling program matches your oil sample against Caterpillar set standards to determine:

- internal engine component condition
- presence of unwanted fluids
- presence of combustion by-products

Web Site

For all your industrial power requirements, visit www.cat-industrial.com.



C11 ACERT™
Industrial Engine
Tier 3/Stage IIIA
242 bkW/325 bhp @ 2100 rpm

STANDARD ENGINE EQUIPMENT

Air Inlet System

Air to air aftercooled (ATAAC)
Turbocharged

Control System

Electronic governing, PTO speed control
Programmable ratings
Cold mode start strategy
Automatic altitude compensation
Power compensation for fuel temperature
Programmable low and high idle and total engine limit
Electronic diagnostics and fault logging
Engine monitoring system
J1939 Broadcast (diagnostic and engine status)
ADEM™ A4

Cooling System

Thermostats and housing, vertical outlet
Jacket water pump, centrifugal
Water pump, inlet

Exhaust System

Exhaust manifold, dry
Optional exhaust outlet

Flywheels and Flywheel Housing

SAE No. 1 Flywheel housing

Fuel System

MEUI injection
Fuel filter, secondary (2 micron high performance)
Fuel transfer pump
Fuel priming pump
ACERT™ Technology

Lube System

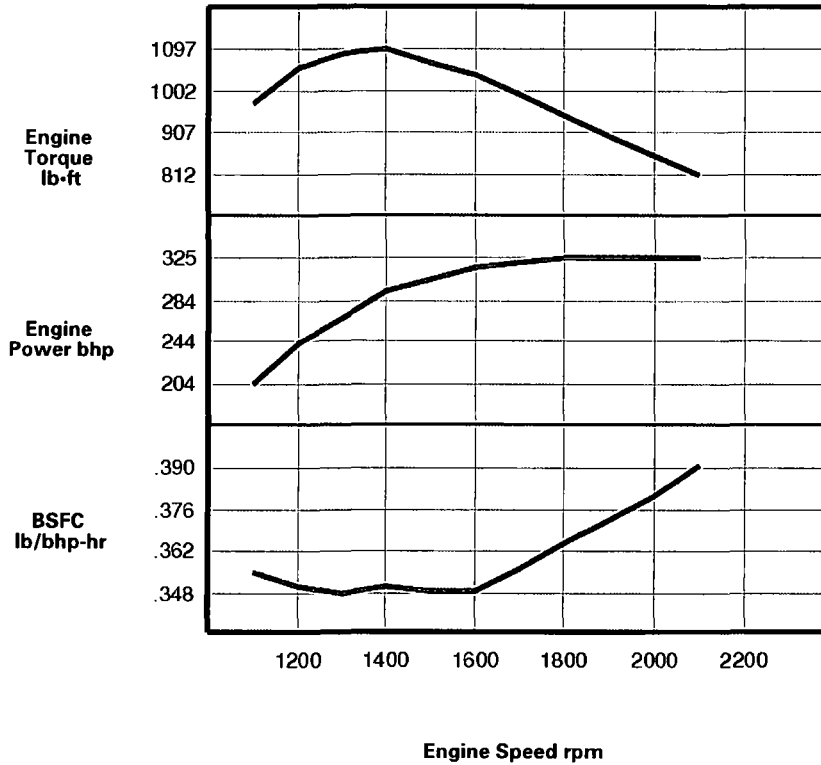
Crankcase breather
Oil cooler
Oil filler
Oil filter
Oil pan front sump
Oil dipstick
Oil pump (gear driven)

General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes

PERFORMANCE CURVES

IND - A (Continuous) - DM7690-05



Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	325	812	.390	18.1
2000	325	853	.380	17.6
1900	325	897	.372	17.3
1800	325	947	.364	16.9
1700	322	994	.356	16.4
1600	316	1036	.348	15.7
1500	304	1066	.349	15.2
1400	292	1097	.350	14.6
1300	268	1083	.348	13.3
1200	241	1056	.351	12.1
1100	204	974	.355	10.4



C11 ACERT™ Industrial Engine

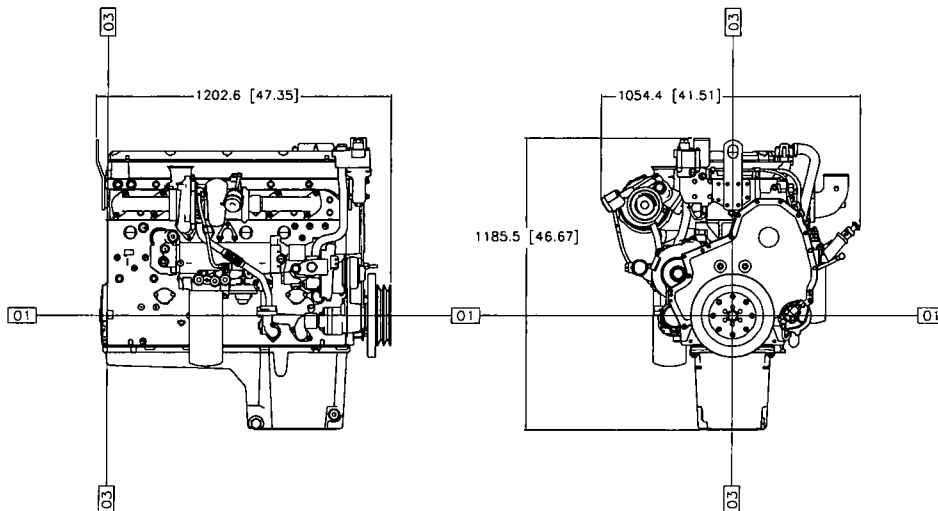
Tier 3/Stage IIIA

242 bkW/325 bhp @ 2100 rpm

RATINGS AND CONDITIONS

IND - A (Continuous) Continuous heavy duty service where the engine is operated at maximum power and speed up to 100% of the time without interruption or load cycling.

Engine Performance Diesel Engines — 7 liter and higher All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in. Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29° C (84.2° F) with a density of 838.9 g/L.



Engine Dimensions	
(1) Length	47.35 in
(2) Width	41.51 in
(3) Height	46.67 in

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 2588858).

Performance Number: DM7690-05

Feature Code: C11DI00 Arr. Number: 2364572

Materials and specifications are subject to change without notice.

16287067

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The International System of Units (SI) is used in this publication.

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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ADM 38-40

December 30, 2010

Florida Dept. of Environmental Protection - Receipts
P.O. Box 3070
Tallahassee, FL 32315-3070

**Subject: Air General Permit Registration Form
South Florida Water Management District
ARMS: 0250683-003-AG**

Enclosed please find Air General Permit Registration Form (DEP Form No. 62-210.920(1)(b)) for the South Florida Water Management District's Pump Station S-331.

The existing Detroit Diesel engines will be replaced with Caterpillar C-11 ACERT engines. The first replacement engine is scheduled to be installed in February 2011. Enclosed are specification sheets for the new Caterpillar C-11 ACERT engines.

Please contact me at 561/682-2516 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey A. Smith".

Jeffrey A. Smith
Lead Environmental Scientist
Infrastructure Systems
Operations & Maintenance Resource Area

c: District O/M file (w/ enclosure)
Rick Garcia, Miami-Dade County DERM (w/ enclosure)



**South Florida
Water Management District**

**P.O. Box 24682
3301 Gun Club Road
West Palm Beach, FL 33416-4682**

**FLORIDA DEPT OF ENVIRON PROTECTION
2600 BLAIR STONE RD**


TALLAHASSEE FL 32399



**SOUTH FLORIDA
WATER MANAGEMENT DISTRICT**

3301 Gun Club Road
P.O. Box 24680
West Palm Beach, Florida 33416-4680



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