



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

December 5, 2008

Daniel Roderick, Vice President
Nuclear Projects, Construction
Progress Energy Florida, Inc.
P.O. Box 14042, SA2C
St. Petersburg, Florida 33733

Re: Draft Air Permit No. PSD-FL-403
Project No. 0750088-001-AC
Levy Nuclear Plant
Unit 1 and 2 Cooling Tower Project, Revised Draft Permit

Dear Mr. Roderick:

On June 2, 2008, Progress Energy Florida, Inc. (Progress Energy) submitted an application for an air construction permit subject to the preconstruction review requirements for the Prevention of Significant Deterioration of Air Quality. The project is for the construction of two mechanical draft cooling towers and miscellaneous emergency generator and fire pump engines to support the proposed Levy Nuclear Power Plant, which is to be located approximately 4 miles northeast of the town of Ingilis and east of State Highway 19 in Levy County, Florida. On July 31, 2008, the Department issued a draft air construction permit. Subsequently, Progress Energy filed for extensions of time to request an administrative hearing.

On November 20, 2008, we received your technical comments stating that the fuel consumption rate for the emergency engines would actually exceed the exemption threshold of 32,000 gallons/year based on 48 hours/year/unit of non-emergency operation. As a result of your comments the Department is rescinding the original draft permit package and issuing a revised draft permit package, which includes the following revised documents: Written Notice of Intent to Issue Air Permit; Public Notice of Intent to Issue Air Permit; Technical Evaluation and Preliminary Determination; and Draft Permit and Appendices.

The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. If you have any questions, please contact the project engineer, Jeff Koerner, at 850/921-9536.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

TLV/jfk

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

*In the Matter of an
Application for Air Permit by:*

Progress Energy Florida, Inc.
P.O. Box 14042, SA2C
St. Petersburg, Florida 33733

Air Permit No. PSD-FL-403
Air Permit No. 0750088-001-AC
Levy Nuclear Plant
Unit 1 and 2 Cooling Towers
Revised Draft Permit
Levy County, Florida

Authorized Representative:

Daniel Roderick, Vice President, Nuclear Projects, Construction

Facility Location: Progress Energy Florida, Inc. proposes to construct a new nuclear power plant to be located approximately 4 miles northeast of the town of Ingilis and east of State Highway 19 in Levy County, Florida.

Project: To support new nuclear Units 1 and 2, the applicant proposes to construct and operate two mechanical draft cooling towers, four 4000 kilowatt (kW) emergency standby generators, four 35 kW ancillary emergency generators and two fire pumps. The project is subject to the preconstruction review requirements of Rule 62-212.400, Florida Administrative Code (F.A.C.) for the Prevention of Significant Deterioration (PSD) of Air Quality for particulate matter emissions. Details of the project are provided in the application and the enclosed Technical Evaluation and Preliminary Determination.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212, F.A.C. The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the revised Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above.

Notice of Intent to Issue Air Permit: On July 31, 2008, the Permitting Authority issued a draft air construction permit for the project. Subsequently, the applicant filed for extensions of time to request an administrative hearing. On November 20, 2008, the Permitting Authority received technical comments from the applicant indicating that the engines for the emergency generators and fire pumps are not eligible for a categorical exemption from air permitting. As a result of these comments, the Permitting Authority rescinds the original draft permit package and gives notice of its intent to issue a revised air permit to the applicant for the project. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at the address or phone number listed above. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit and requests for a public meeting for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. In addition, if a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within fourteen 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

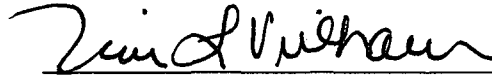
A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

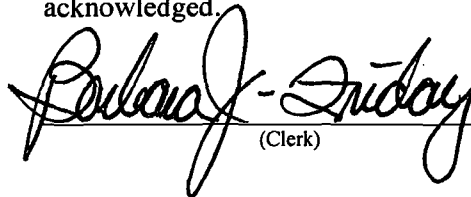
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that either this Written Notice of Intent to Issue Air Permit (including the Draft Permit, Appendices, Public Notice and Technical Evaluation and Preliminary Determination), or a link to these documents available electronically on a publicly accessible server, was sent before the close of business on 12/8/08 by electronic mail with received receipt requested to the persons listed below.

- Mr. Daniel Roderick, Progress Energy Florida, Inc. (daniel.roderick@pgnmail.com)
- Mr. Jamie Hunter, Progress Energy Florida, Inc. (john.hunter@pgnmail.com)
- Mr. Albert Ugelow, CH2M Hill (albert.ugelow@ch2m.com)
- Mr. Chris Kirts, Northeast District Office (chris.kirts@dep.state.fl.us)
- Mr. Mike Halpin, Siting Office (mike.halpin@dep.state.fl.us)
- Ms. Cindy Mulkey, Siting Office (cindy.mulkey@dep.state.fl.us)
- Ms. Ann Seiler, Siting Office (ann.seiler@dep.state.fl.us)
- Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
- Ms. Heather Abrams, EPA Region 4 (abrams.heather@epamail.epa.gov)
- Ms. Vitoria Gibson, BAR Reading File (Victoria.gibson@dep.state.fl.us)

Clerk Stamp

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



(Clerk)

12/8/08
(Date)



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

Progress Energy Florida, Inc.
P.O. Box 14042, SA2C
St. Petersburg, Florida 33733

Proposed Levy Nuclear Plant
ARMS Facility ID No. 0750088

PROJECT

Draft Permit No. PSD-FL-403
Project No. 0750088-001-AC
Unit 1 and 2 Cooling Tower Project
Revised Draft Permit

COUNTY

Levy County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
New Source Review Section
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

December 5, 2008

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, the project is subject to major source preconstruction review in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant (PSD) Deterioration of Air Quality.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial activities. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Facility Description and Location

Progress Energy Florida, Inc. submitted a site certification package to the Department's Power Plant Siting Office for a proposed 2000 megawatt (MW) nuclear power plant, which is categorized under Standard Industrial Classification Code (SIC) No. 4911. The facility is proposed to be located approximately 4 miles northeast of the town of Ingilis and east of State Highway 19 in Levy County, Florida. The UTM coordinates are Zone 17, 342.2 km East, and 3217.2 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility will not be a major source of hazardous air pollutants (HAP).
- The facility will have no units subject to the acid rain provisions of the Clean Air Act.
- The facility will be a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility will be a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C. The project is subject to PSD preconstruction review for total particulate matter emissions only.
- The facility will have units subject to applicable New Source Performance Standards (NSPS) in Part 60 of Title 40 in the Code of Federal Regulations.

Project Description

On June 2, 2008, the Department received a complete application from Progress Energy Florida, Inc. to construct two 44-cell mechanical draft cooling towers to support the proposed nuclear Units 1 and 2. Each cooling tower will be arranged in an array of 2 x 22 cells that will operate continuously. The towers will obtain make-up water from the nearby Cross Florida Barge Canal to cool the Unit 1 and Unit 2 condensers. The cooling water flow rate for all 44 cells is estimated at 531,100 gallons per minute (gpm) and the design air flow rate is estimated at 1,662,887 actual cubic feet per minute (acfm) per cell.

The cooling towers provide direct contact between the cooling water and air passing through the tower. Drift is created when small amounts of cooling water become entrained in the air stream and are carried out of the tower. Salt and solids in the water droplets are emitted as particulate matter (PM) that escapes as drift from the tower. Drift eliminators are proposed to minimize PM emissions caused by the cooling tower drift.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The project also includes the construction of four 4000 kilowatt (kW) emergency standby generators, four 35 kW ancillary emergency generators and two 650 horsepower (hp) fire pumps. During normal operation the facility will generate all of its own power needs or obtain it from the local power grid. In the event the facility is not operational or power is not available from the local grid, the emergency generators will be used to keep the control room and certain essential plant equipment energized and the fire pumps will be available to maintain water pressure to the fire suppression systems. Each engine powering an emergency generator or fire pump will fire diesel. The preliminary construction schedule is: commence site clearing and preparation in 2010; begin facility construction in 2011; commercial operation of Unit 1 in 2016; and commercial operation of Unit 2 in 2017.

The project will add the following new emissions units.

ID No.	Description
001	Unit 1 Cooling Tower
002	Unit 2 Cooling Tower
003	Four 4000 kW emergency standby generators and four 35 kW ancillary emergency generators
004	Two 650 hp diesel powered firewater pumps

The engines for the emergency generators and fire pumps are subject to the applicable provisions in the following New Source Performance Standards (NSPS) of 40 CFR 60: Subpart A (General Provisions) and Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines), which consist of record keeping and reporting requirements. The facility also operates other miscellaneous unregulated and insignificant emissions units and activities.

2. PSD APPLICABILITY REVIEW

General PSD Applicability

The Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program pursuant to Rule 62-212.400, F.A.C. A PSD applicability review is required in areas currently in attainment with the state and federal AAQS or areas otherwise designated as "unclassifiable". A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit: 250 tons per year or more of any regulated air pollutant; 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD major facility categories defined in Rule 62-210.200, F.A.C. for major stationary sources; or 5 tons per year of lead. Projects at existing or new major stationary sources are subject to PSD preconstruction review. In addition, proposed projects at existing minor sources are subject to PSD preconstruction review if potential emissions *from the proposed project* will exceed the PSD major stationary source thresholds.

Once a project becomes subject to PSD preconstruction review, each of the following PSD pollutants is reviewed for PSD applicability based on emissions thresholds known as the "significant emission rates" defined in Rule 62-210.200, F.A.C.: carbon monoxide (CO); nitrogen oxides (NO_x); sulfur dioxide (SO₂); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM₁₀); particulate matter with a mean particle diameter of 2.5 microns or less (PM_{2.5}); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H₂S); total reduced sulfur (TRS), including H₂S; reduced sulfur compounds, including H₂S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO₂ and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as nonmethane organic compounds (NMOC); and mercury (Hg). Emissions from the project exceeding the significant emission rate are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

pollutant and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

Rule 62-210.200, F.A.C. defines "BACT" as:

An emission limitation, including a visible emissions standard, based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account:

- 1. Energy, environmental and economic impacts, and other costs;*
- 2. All scientific, engineering, and technical material and other information available to the Department; and*
- 3. The emission limiting standards or BACT determinations of Florida and any other state;*

determines is achievable through application of production processes and available methods, systems and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of each such pollutant.

If the Department determines that technological or economic limitations on the application of measurement methodology to a particular part of an emissions unit or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice or operation.

Each BACT determination shall include applicable test methods or shall provide for determining compliance with the standard(s) by means which achieve equivalent results.

In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63.

In addition to a review and proposal of BACT, applicants must provide an Air Quality Analysis that evaluates the predicted air quality impacts resulting from the project for each PSD pollutant subject to modeling criteria.

PSD Applicability for the Project

The proposed project will be a major stationary source located in Levy County, which is in an area that is currently in attainment with the state and federal AAQS or otherwise designated as unclassifiable. Based on the air permit application, the project will result in potential emissions of: 3.5 tons per year of carbon monoxide (CO); 16.4 tons per year of nitrogen oxides (NO_x); 507 tons per year of particulate matter (PM); 6.8 tons per year of particulate matter with a mean diameter of 10 microns or less (PM₁₀); 0.07 tons per year of sulfur dioxide (SO₂); and 1.4 tons per year of volatile organic compounds (VOC). Since annual PM emissions are greater than 250 tons/year, the project is subject to the preconstruction review requirements of Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. Based on the applicant's estimates, only PM emissions are greater than the corresponding significant emissions rates. Therefore, a BACT determination is required for PM emissions only. No air quality modeling analysis is required because the modeled pollutant (PM₁₀) is not subject to PSD preconstruction review.

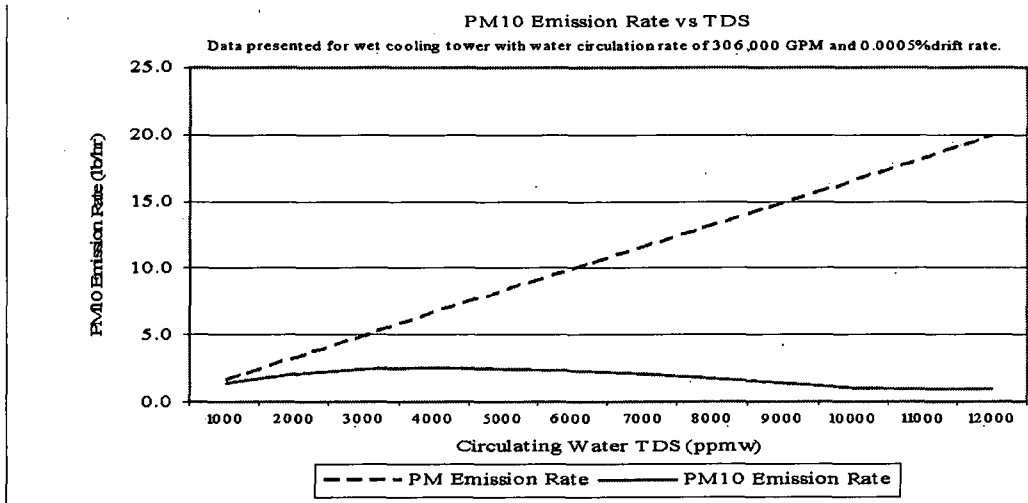
3. PROJECT REVIEW

Applicant's Proposal

The cooling towers will emit PM as a result of the carry over of solids in the water droplet drift. Total PM emissions include PM₁₀ and PM_{2.5} particles as well. Particulate matter will be controlled by properly designed drift eliminators. Based on the application, future potential PM emissions from the cooling towers alone are estimated to be 507 tons/year, which exceeds the PSD significant emission rate of 25 tons per year. However, the applicant estimates PM₁₀ emissions to be 5.6 tons per year, which is less than the corresponding PSD

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

significant emissions rate of 15 tons/year. The estimate is based upon the study, “Calculating Realistic PM₁₀ Emissions from Cooling Towers” by Joel Reisman and Gordon Frisbie. According to the study, PM and PM₁₀ emissions increase with an increase in the concentration of total dissolved solids (TDS) to about 4000 parts per million (ppm). However, at TDS levels greater than 4000 ppm, the PM₁₀ emissions rate will decrease while the PM emissions rate will continue to increase. The paper states that at higher TDS, the drift droplets contain more solids and therefore, upon evaporation, result in larger particles for any given initial droplet size. The graph below shows the correlation of PM and PM₁₀ emissions rates as a function of TDS in the circulating water.



With an estimated TDS of 25,000 ppm for the new cooling towers and a circulating flow rate of 531,100 gallons per minute, the report suggests large PM emissions with minimal PM₁₀ emissions as indicated in the application. The estimated PM₁₀ emissions do not

exceed the significant emission rate for PM₁₀ of 15 tons/year. Therefore, a BACT determination is required for PM emissions only. No air quality modeling analysis is required because the modeled pollutant (PM₁₀) is not subject to PSD preconstruction review.

To minimize PM emissions from the cooling towers, the applicant proposes a design drift rate for the drift eliminators of 0.0005% of the circulating water flow rate. This is consistent with recent BACT determinations for mechanical draft cooling towers.

The combustion of diesel in the engines for the emergency generators and fire pumps will result in PM emissions. To minimize PM emissions, the engines for the emergency generators and fire pumps will fire ultra low sulfur diesel.

BACT Determinations

The Department conducted a review of EPA's RACT/BACT/LAER Clearinghouse for mechanical draft cooling towers permitted between 2003 and 2008. For recent projects, the lowest BACT determination for mechanical draft cooling towers is a design drift rate 0.0005% of the circulating water flow rate based upon drift eliminators. The Department determines this design specification to be BACT for PM emissions from the cooling towers. For the emergency generator and fire pump engines, the Department determines the firing of ultra low sulfur diesel with a maximum sulfur content of $\leq 0.00015\%$ by weight to be BACT for PM emissions.

Due to the extended construction schedule for the nuclear units, the applicant must submit a new BACT analysis within two years prior to beginning construction of the cooling towers. If the Department's reassessment of BACT is substantially different from the initial determination, the applicant shall submit an air construction permit revision application.

NSPS Provisions

The engines for the emergency generators and fire pumps are subject to the applicable provisions in the following New Source Performance Standards (NSPS) of 40 CFR 60: Subpart A (General Provisions) and Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines),

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

which consist of record keeping and reporting requirements. The NSPS provisions will be attached as Appendices to the draft permit.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the revised Draft Permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the Draft Permit. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit changes. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

REVISED DRAFT PSD PERMIT

PERMITTEE

Progress Energy Florida
P.O. Box 14042, SA2C
St. Petersburg, Florida 33733

Air Permit No. PSD-FL-403
Project No. 0750088-001-AC
ARMS ID No. 0750088
Levy Nuclear Plant
Unit 1 and 2 Cooling Towers
Permit Expires: 1/1/2018

Authorized Representative:
Daniel Roderick, Vice President, Nuclear Projects, Construction

PROJECT AND LOCATION

This permit authorizes construction of two mechanical draft cooling towers and diesel-powered emergency generators and fire pumps. The work will be conducted at the proposed Levy Nuclear Plant, which will be a new nuclear power plant (SIC No. 4911). The facility is proposed to be located approximately 4 miles northeast of the town of Ingilis and east of State Highway 19 in Levy County, Florida. The UTM coordinates are Zone 17, 342.2 km East, and 3217.2 km North.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 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 (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. as well as the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

Executed in Tallahassee, Florida

(DRAFT)

Joseph Kahn, Director
Division of Air Resource Management

(Date)

SECTION 1. GENERAL INFORMATION (REVISED DRAFT)

FACILITY AND PROJECT DESCRIPTION

Progress Energy Florida, Inc. has submitted a site certification package to the Department's Power Plant Siting Office for a proposed 2000 megawatt (MW) nuclear power plant. A part of this package includes an application for an air permit to construct two 44-cell mechanical draft cooling towers, arranged in an array of 2 x 22 cells that will operate continuously. The towers will obtain make-up water from the nearby Cross Florida Barge Canal to cool the Unit 1 and 2 condensers. The cooling water flow rate for all 44 cells is estimated at 531,100 gallons per minute (gpm) and the design air flow rate per cell is estimated at 1,662,887 actual cubic feet per minute (acfm). The cooling towers provide direct contact between the cooling water and air passing through the tower. Drift is created when small amounts of cooling water become entrained in the air stream and are carried out of the tower. Particulate matter (PM) is emitted as salt and solids in the water droplets escape as drift from the tower. Drift eliminators will be used to minimize PM emissions caused by the cooling tower drift.

The project also includes four 4000 kilowatt (kW) emergency standby generators, four 35 kW ancillary emergency generators and two fire pumps. During normal operation, the facility will generate all of its own power needs or obtain power from the local grid. In the event the facility is not operational and power is not available from the local power grid, the emergency generators will be used to keep the control room and certain essential plant equipment and utilities energized and the emergency fire pumps will be available to maintain water pressure to the fire suppression systems. The facility will also operate other miscellaneous unregulated and insignificant emissions units and activities.

This project adds the following new emissions units.

ID No.	Emission Unit Description
001	Unit 1 Cooling Tower
002	Unit 2 Cooling Tower
003	Four 4000 kW emergency standby generators and 35 kW ancillary emergency generators
004	Two 650 hp fire pumps

FACILITY REGULATORY CLASSIFICATION

- The facility will not be a major source of hazardous air pollutants (HAP).
- The facility will have no units subject to the acid rain provisions of the Clean Air Act.
- The facility will be a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility will be a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C. The project is subject to PSD preconstruction review for PM emissions only.
- The facility will have units subject to the New Source Performance Standards (NSPS) in Part 60, Title 40 of the Code of Federal Regulations (CFR).

SECTION 2. ADMINISTRATIVE REQUIREMENTS (REVISED DRAFT)

1. **Permitting Authority:** The permitting authority for this project is the Bureau of Air Regulation, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The Bureau of Air Regulation's mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District Office.
2. **Compliance Authority:** All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office. The mailing address and phone number of the Northeast District Office is: 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256, 904/807-3300.
3. **Appendices:** The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions;
 - d. Appendix D. Summary of Best Available Control Technology Determinations;
 - e. Appendix E. NSPS Subpart A, General Provisions; and
 - f. Appendix F. NSPS Subpart III, Stationary Compression Ignition Internal Combustion Engines
4. **Applicable Regulations, Forms and Application Procedures:** Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. **New or Additional Conditions:** For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. **Modifications:** The permittee shall notify the Compliance Authority upon commencement of construction. *No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department.* Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. **BACT Determination Subject to Revision:** The applicant must submit a new BACT analysis within two years prior to beginning construction of the cooling towers due to the extended construction schedule of the nuclear units. If the Department's reassessment of BACT is substantially different from the initial determination, the applicant shall submit an air construction permit revision application. [Rule 62-212.400(BACT), F.A.C.]
8. **Application for Title V Permit:** This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (REVISED DRAFT)

A. UNIT 1 AND 2 COOLING TOWERS (EU-001 and EU-002)

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
001	Unit 1 Mechanical Draft Cooling Tower
002	Unit 2 Mechanical Draft Cooling Tower

{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., the above emission units are subject to Best Available Control Technology (BACT) determinations for total particulate matter (PM).}

EQUIPMENT

1. **Cooling Towers:** The permittee is authorized to construct and operate two new mechanical draft cooling towers with the following nominal design characteristics: 44 cells; a circulating water flow rate of 531,100 gpm; a design air flow of 1,662,887 acfm; and drift eliminators designed for a drift rate of no more than 0.0005% of the circulating water flow for each tower. [Application No. 0750088-001-AC and Design]
2. **Hours of Operation:** The new cooling towers may operate continuously (8760 hours per calendar year). [Application No. 0750088-001-AC]
3. **Cooling Tower Design Drift Rate:** The cooling towers shall be designed and maintained to achieve a drift rate of no more than 0.0005% of the circulating water flow. Within 60 days of commencing operation, the permittee shall notify the compliance authority that the cooling towers were constructed to achieve the specific drift rate of no more than 0.0005% of the circulating flow rate. [Application No. 0750088-001-AC; Rule 62-212.400(BACT); and Design]
4. **Circulating Water Flow Rate:** Upon request, the applicant shall provide a means for determining the circulating water flow rate through the new cooling tower. [Rule 62-4.070, F.A.C.]
5. **Emissions Report:** PM and PM₁₀ emissions from the cooling towers shall be reported as part of the annual operating report. [Rule 62-210.370(3), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (REVISED DRAFT)

B. EMERGENCY GENERATORS AND FIRE PUMPS (EU-003 and EU-004)

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
003	Four 4000 kW emergency standby generators and 35 kW ancillary emergency generators
004	Two 650 hp fire pumps

EQUIPMENT

1. **New Equipment:** The permittee is authorized to construct and operate four 4000 kW emergency standby generators, four 35 kW ancillary emergency generators and two 650 hp fire pumps. [Application No. 0750088-001-AC]
2. **Hours of Operation:** Each unit may operate as necessary to support emergency operations including a loss of power at the facility. Each emergency generator and fire pump may operate for up to 48 hours per year of non-emergency operation to ensure that the units remain in working order. [Application No. 0750088-001-AC]
3. **Authorized Fuel:** Each emergency generator and fire pump shall fire only ultra low sulfur diesel with a maximum sulfur content of 0.00015% by weight. [Application No. 0750088-001-AC]
4. **Applicable NSPS Provisions:** The engines for the emergency generators and fire pumps are subject to the applicable provisions in the following New Source Performance Standards (NSPS) of 40 CFR 60: Subpart A (General Provisions) and Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines), which consist of record keeping and reporting requirements. The NSPS provisions are attached as Appendix E and Appendix F of this permit. [Subparts A and IIII in 40 CFR 60 and Rule 62-204.800, F.A.C.]

CONTENTS

Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Common Conditions

Appendix D. BACT Determination

Appendix E. NSPS Subpart A, General Provisions

Appendix F. NSPS Subpart IIII, Stationary Compression Ignition Internal Combustion Engines

SECTION 4. APPENDIX A (REVISED DRAFT)
CITATION FORMATS

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number for that county
“001” identifies the specific permit project number
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor source federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX B (REVISED DRAFT)

GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 624.160, F.A.C.

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, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., 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.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed 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.
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.

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 maybe subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S.. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

SECTION 4. APPENDIX B (REVISED DRAFT)

GENERAL CONDITIONS

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 624.120 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.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (applicable);
 - b. Determination of Prevention of Significant Deterioration (applicable); and
 - c. Compliance with New Source Performance Standards (applicable).
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.
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.

SECTION 4. APPENDIX C (REVISED DRAFT)
COMMON CONDITIONS

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 624.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall 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), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

{Permitting Note: Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any NSPS or NESHAP provision.}

RECORDS AND REPORTS

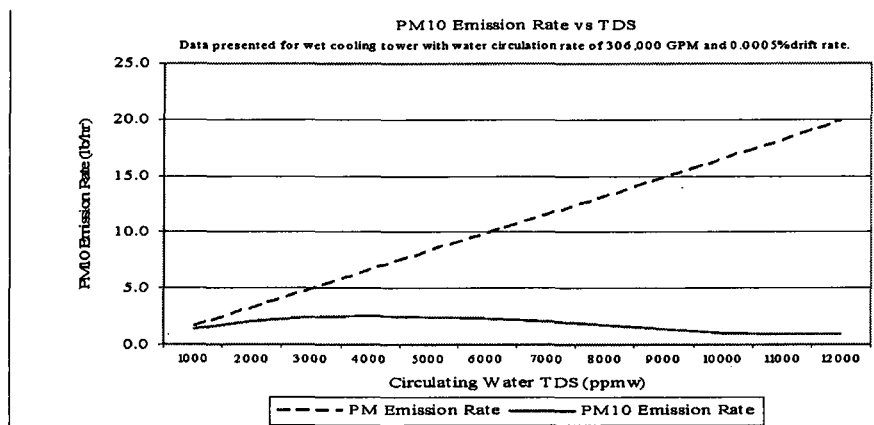
10. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]
11. **Annual Operating Report:** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(3), F.A.C.]

SECTION 4. APPENDIX D (REVISED DRAFT)
BACT DETERMINATIONS

PSD Applicability for the Project

The Levy Nuclear Plant is a proposed PSD major stationary source located in Levy County, which is in an area that is currently in attainment with the state and federal AAQS or otherwise designated as unclassifiable. The applicant proposes to construct and operate two mechanical draft cooling towers to support nuclear Units 1 and 2. The cooling towers will emit particulate matter (PM) as a result of the carry over of solids (primarily salt) in the water droplet drift. The PM emissions include particles with a mean diameter of 10 microns or less (PM₁₀). Particulate matter will be controlled by the drift rate design specifications, which serve as a surrogate to control PM/PM₁₀.

Based on the application, future PM emissions are estimated to be 514 tons/year based on 8760 hours per year of operation, which makes the project new major stationary source subject to the preconstruction review requirements of Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. PM emissions will exceed the significant emission rate of 25 tons per year, but PM₁₀ emissions are estimated at 5.6 tons/year, which is less than the significant emissions rate of 15 tons/year. The PM/PM₁₀ estimates are based upon the study, "Calculating Realistic PM₁₀ Emissions from Cooling Towers" by Joel Reisman and Gordon Frisbie. According to the study, PM₁₀ emissions increase with PM as the concentration of total dissolved solids (TDS) increases to about 4000 ppm. At TDS levels greater than 4000 ppm, the amount of PM₁₀ sized particles will decrease while PM continues to increase. The paper states that at higher TDS, the drift droplets contain more solids and therefore, upon evaporation, result in larger particles for any given initial droplet size. Table 1 provides a graph of the correlation of PM and PM₁₀ as a function of TDS in the circulating water.



With the estimated TDS of 25,000 ppm for the new cooling towers and a circulating flow rate of 531,100 gallons per minute, the report suggests large PM emissions with minimal PM₁₀ emissions as indicated in the application. Since PM₁₀ emissions will not exceed the significant emissions rate, a BACT determination is required for PM, but not PM₁₀. In addition, no air quality analysis is required because the modeled pollutant is PM₁₀, which is not subject to PSD preconstruction review for this project.

The project will also include construction of diesel-powered emergency generators, ancillary emergency generators and fire pumps. The emergency generators and fire pumps will operate for no more than 48 hours/year of non-emergency operation to ensure that each unit is functioning properly and available for emergency operation. Based on the applicant's original estimates, annual emissions from all of these units combined will be: of 16.4 tons/year of NO_x, 0.07 tons/year of SO₂, 3.5 tons/year of CO, 1.4 tons/year of VOC and 1.2 tons/year of PM/PM₁₀.

BACT Determination

The Department conducted a review of EPA's RACT/BACT/LAER Clearinghouse for mechanical draft cooling towers between 2003 and 2008. Based upon the review, the Department concludes that BACT for mechanical draft cooling towers is based upon drift eliminators. BACT has been established as low as 0.0005% drift rate. The Department agrees and BACT is determined to be a design drift rate of 0.0005% for the new cooling towers. For the diesel-powered emergency generators, ancillary emergency generators and fire pumps, the applicant proposes the use of ultra low sulfur diesel to minimize PM emissions. The Department agrees and BACT for these units is determined to be the firing of diesel with a maximum sulfur content of 0.00015% by weight.

Due to the extended construction schedule of the nuclear units, the applicant is required to submit a new BACT analysis and determination within two years prior to beginning construction of the cooling towers. If the Department's reassessment of BACT is substantially different from the initial determination, the applicant shall submit an application for a revised air construction permit, which will require a new Public Notice.

SECTION 4. APPENDIX E (REVISED DRAFT)
NSPS SUBPART A, GENERAL PROVISIONS

Emissions units subject to a New Source Performance Standard of 40 CFR 60 are also subject to the applicable requirements of Subpart A, the General Provisions, including:

- § 60.1 Applicability.
- § 60.2 Definitions.
- § 60.3 Units and abbreviations.
- § 60.4 Address.
- § 60.5 Determination of construction or modification.
- § 60.6 Review of plans.
- § 60.7 Notification and Record Keeping.
- § 60.8 Performance Tests.
- § 60.9 Availability of information.
- § 60.10 State Authority.
- § 60.11 Compliance with Standards and Maintenance Requirements.
- § 60.12 Circumvention.
- § 60.13 Monitoring Requirements.
- § 60.14 Modification.
- § 60.15 Reconstruction.
- § 60.16 Priority List.
- § 60.17 Incorporations by Reference.
- § 60.18 General Control Device Requirements.
- § 60.19 General Notification and Reporting Requirements.

Individual subparts may exempt specific equipment or processes from some or all of these requirements. The general provisions may be provided in full upon request.

Updated 7/19/06- EFFECTIVE 9/11/06

Source Federal Register Dated 7/11/06

Subpart IIII--Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What This Subpart Covers

60.4200 Am I subject to this subpart?

Emission Standards for Manufacturers

60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Emission Standards for Owners and Operators

60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Fuel Requirements for Owners and Operators

60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

Other Requirements for Owners and Operators

60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year?

60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

Compliance Requirements

60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

Testing Requirements for Owners and Operators

60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Notification, Reports, and Records for Owners and Operators

60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

Special Requirements

60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

60.4216 What requirements must I meet for engines used in Alaska?

60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

General Provisions

60.4218 What parts of the General Provisions apply to me?

Definitions

60.4219 What definitions apply to this subpart?

Tables to Subpart III of Part 60

Table 1 to Subpart III of Part 60--Emission Standards for Stationary Pre-2007 Model Year Engines with a displacement of < 10 liters per cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and with a displacement of < 10 liters per cylinder

Table 2 to Subpart III of Part 60--Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE < 37 KW (50 HP) and with a Displacement of < 10 liters per cylinder

Table 3 to Subpart III of Part 60--Certification Requirements for Stationary Fire Pump Engines

Table 4 to Subpart III of Part 60--Emission Standards for Stationary Fire Pump Engines

Table 5 to Subpart III of Part 60--Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

Table 6 to Subpart III of Part 60--Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

Table 7 to Subpart III of Part 60--Requirements for Performance Tests for Stationary CI ICE with a displacement of >=30 liters per cylinder

Table 8 to Subpart III of Part 60--Applicability of General Provisions to Subpart III

Sec. 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after

July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

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

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

Sec. 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later nonemergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year nonemergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later nonemergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later nonemergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

Sec. 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

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

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

Sec. 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in Sec. Sec. 60.4201 and 60.4202 during the useful life of the engines.

Sec. 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in Sec. 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NOX) emissions by 90 percent or more, or limit the emissions of NOX in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

Sec. 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(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 must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(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 must comply with the emission standards for new nonrad CI engines in Sec. 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.

(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 this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NOX emissions by 90 percent or more, or limit the emissions of NOX in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

Sec. 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in Sec. Sec. 60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Sec. 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

- (a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
- (c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.
- (d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.
- (e) Stationary CI ICE that have a national security exemption under Sec. 60.4200(d) are also exempt from the fuel requirements in this section.

Sec. 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.
- (d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.
- (e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in Sec. Sec. 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

(h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

Sec. 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in Sec. 60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in Sec. 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Sec. 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in Sec. 60.4201(a) through (c) and Sec. 60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in Sec. 60.4201(d) and Sec. 60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in Sec. 60.4202 but does not meet all the emission standards for non-emergency engines in Sec. 60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of Sec. 60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

Sec. 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in Sec. 60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in Sec. 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in Sec. 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in Sec. 60.4204(b) or Sec. 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in Sec. 60.4205(c), you must comply by purchasing an engine certified to the emission standards in Sec. 60.4204(b), or Sec. 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in Sec. 60.4204(c) or Sec. 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in Sec. 60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

(ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in Sec. 60.4213.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under Sec. 60.4205 but not Sec. 60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Sec. 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

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

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in Sec. 60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre2007 model year engines in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c), determined from the equation in paragraph (c) of this section.

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

Where:

STD = The standard specified for that pollutant in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre2007 model year engines in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c) may follow the testing procedures specified in Sec. 60.4213, as appropriate.

Sec. 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

(a) Each performance test must be conducted according to the requirements in Sec. 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

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

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

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C_i = concentration of NOX or PM at the control device inlet,

C_o = concentration of NOX or PM at the control device outlet, and

R = percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O₂) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO₂) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% O_2} \quad (\text{Eq. 3})$$

Where:

C_{adj} = Calculated NOX or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NOX or PM, uncorrected.

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

%O₂ = Measured O₂ concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O₂ and CO₂ concentration is measured in lieu of O₂ concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

F_o = Fuel factor based on the ratio of O₂ volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O₂, 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 O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X_{CO₂} = CO₂ correction factor, percent.

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

(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NOX or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NOX or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NOX concentration in ppm.

1.912x10⁻³ = Conversion constant for ppm NOX to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

Sec. 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in Sec. 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

Sec. 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in Sec. 60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in Sec. 60.4204(c).

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in Sec. 60.4207.

Sec. 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart III, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart III. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

Sec. 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under Sec. 60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of Sec. 60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in Sec. 60.4202 or Sec. 60.4203 using such fuels.

(b) [Reserved]

Sec. 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in Sec. Sec. 60.1 through 60.19 apply to you.

Sec. 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

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

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

- (1) The calendar year in which the engine was originally produced, or
- (2) The annual new model production period of the engine manufacturer if it is different than the

calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

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

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart III.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Tables to Subpart III of Part 60

TABLE 1 TO SUBPART III OF PART 60.—EMISSION STANDARDS FOR STATIONARY PRE-2007 MODEL YEAR ENGINES WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER AND 2007–2010 MODEL YEAR ENGINES >2,237 KW (3,000 HP) AND WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER [As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NOX	HC	NOX	CO	PM
KW<8	10.5 (7.8)	N/A	N/A	8.0 (6.0)	1.0 (0.75)

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

(HP<11)					
8≤KW<19 (11≤HP<25)	9.5 (7.1)	N/A	N/A	6.6 (4.9)	0.80(.060)
19≤KW<37 (25≤HP<50)	9.5 (7.1)	N/A	N/A	5.5 (4.1)	0.80(.060)
37≤KW<56 (50≤HP<75)	N/A	N/A	9.2 (6.9)	N/A	N/A
56≤KW<75 (75≤HP<100)	N/A	N/A	9.2 (6.9)	N/A	N/A
75≤KW<130 (100≤HP<175)	N/A	N/A	9.2 (6.9)	N/A	N/A
130≤KW<225 (175≤HP<300)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW<560 (600≤HP<750)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

TABLE 2 TO SUBPART III OF PART 60.—EMISSION STANDARDS FOR 2008 MODEL YEAR AND LATER EMERGENCY STATIONARY CI ICE <37 KW (50 HP) WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER [As stated in § 60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NOX + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

TABLE 3 TO SUBPART III OF PART 60.—CERTIFICATION REQUIREMENTS FOR STATIONARY FIRE PUMP ENGINES

[As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW<560 (175≤HP<750)	2009
KW>560 (HP>750)	2008

TABLE 4 TO SUBPART III OF PART 60.—EMISSION STANDARDS FOR STATIONARY FIRE PUMP ENGINES

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum Engine Power	Model Years	NMHC + NOx	CO	PM

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (.75)
	2011+	7.5 (5.6)	n/a	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)	n/a	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)	n/a	0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+1	4.7 (3.5)	n/a	0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+1	4.7 (3.5)	n/a	0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+2	6.4 (4.8)	n/a	0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+3	6.4 (4.8)	n/a	0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+3	6.4 (4.8)	n/a	0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	6.4 (4.8)	n/a	0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)	n/a	0.20 (0.15)

1 For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

2 For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

3 In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

TABLE 5 TO SUBPART III OF PART 60.—LABELING AND RECORDKEEPING REQUIREMENTS FOR NEW STATIONARY EMERGENCY ENGINES

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine Power	Starting Model Year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

TABLE 6 TO SUBPART III OF PART 60.—OPTIONAL 3-MODE TEST CYCLE FOR STATIONARY FIRE PUMP ENGINES

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine Speed ¹	Torque (percent) ²	Weighting Factors
1	Rated	100	.030
2	Rated	75	0.50
3	Rated	50	0.20

¹ Engine speed: ±2 percent of point.

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART IIII, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

2 Torque: NFPA certified nameplate HP for 100 percent point. All points should be ± 2 percent of engine percent load value.

TABLE 7 TO SUBPART IIII OF PART 60.—REQUIREMENTS FOR PERFORMANCE TESTS FOR STATIONARY CI ICE WITH ADISPLACEMENT OF ≥ 30 LITERS PER CYLINDER

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥ 30 liters per cylinder:]

For Each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder.	a. Reduce NOX emissions by 90 percent or more.	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) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O2 concentration must be made at the same time as the measurements for NOX concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; 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 measurements for NOX concentration.
		iv. Measure NOX at the inlet and outlet of the control device.	(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) NOX 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.
	b. Limit the concentration of NOX 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	(2) Method 3, 3A,	(b) Measurements

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

		O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	or 3B of 40 CFR part 60, appendix A.	to determine O2 concentration must be made at the same time as the measurement for NOX 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 NOX concentration.
		iv. Measure NOX 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) NOX 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.
	c. Reduce PM emissions by 60 percent or more.	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) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O2 concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet	(4) Method 5 of 40 CFR part 60,	(d) PM concentration must

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

		of the control device.	appendix A.	be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. 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 ₂ concentration 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.

TABLE 8 TO SUBPART III OF PART 60.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART III
 [As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	yes	
§ 60.2	Definitions	yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	yes	
§ 60.4	Address	yes	

SECTION 4. APPENDIX F (REVISED DRAFT)

NSPS SUBPART III, STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

§ 60.5	Determination of construction or modification	yes	
§ 60.6	Review of plans	yes	
§ 60.7	Notification and Recordkeeping	yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	yes	
§ 60.10	State Authority	yes	
§ 60.11	Compliance with standards and maintenance requirements.	no	Requirements are specified in subpart III.
§ 60.12	Circumvention	yes	
§ 60.13	Monitoring requirements	yes	Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§ 60.14	Modification	yes	
§ 60.15	Reconstruction	yes	
§ 60.16	Priority list	yes	
§ 60.17	Incorporations by reference	yes	
§ 60.18	General control device requirements	no	
§ 60.19	General notification and reporting requirements	yes	

Friday, Barbara

From: Friday, Barbara
Sent: Monday, December 08, 2008 1:10 PM
To: 'daniel.roderick@pgnmail.com'
Cc: 'john.hunter@pgnmail.com'; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; 'Forney.Kathleen@epamail.epa.gov'; 'albert.ugelow@ch2m.com'; Seiler, Ann; 'abrams.heather@epamail.epa.gov'; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Attachments: 0750088-001-ACRevisedWrittenNotice.pdf

Dear Sir/ Madam:

Attached is the official **Written Notice of Intent to Issue Air Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". **We must receive verification that you are able to access the documents.** Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0750088.001.AC.D_pdf.zip

Attention: Jeff Koerner

Owner/Company Name: PROGRESS ENERGY FLORIDA, INC.
Facility Name: LEVY NUCLEAR PLANT
Project Number: PSD-FL-403/0750088-001-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: LEVY

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at <http://www.dep.state.fl.us/air/eproducts/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

Barbara Friday

Bureau of Air Regulation

Division of Air Resource Management (DARM)

(850)921-9524

Recipient	Delivery	Read
'daniel.roderick@pgnmail.com'		
'john.hunter@pgnmail.com'		
Kirts, Christopher	Delivered: 12/8/2008 1:10 PM	
Halpin, Mike	Delivered: 12/8/2008 1:10 PM	Read: 12/8/2008 1:10 PM
Mulkey, Cindy	Delivered: 12/8/2008 1:10 PM	
'Forney.Kathleen@epamail.epa.gov'		
'albert.ugelow@ch2m.com'		
Seiler, Ann	Delivered: 12/8/2008 1:10 PM	Read: 12/8/2008 1:10 PM
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Gibson, Victoria	Delivered: 12/8/2008 1:10 PM	
Koerner, Jeff	Delivered: 12/8/2008 1:10 PM	
Livingston, Sylvia	Delivered: 12/8/2008 1:10 PM	

Friday, Barbara

From: Roderick, Daniel L. [Daniel.Roderick@pgnmail.com]
To: Friday, Barbara
Sent: Monday, December 08, 2008 1:11 PM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: Daniel.Roderick@pgnmail.com
Subject:

was read on 12/8/2008 1:11 PM.

Friday, Barbara

From: Hunter, John J (Jamie) [John.Hunter@pgnmail.com]
Sent: Monday, December 08, 2008 1:44 PM
To: Friday, Barbara
Subject: RE: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Recieved...

Thanks.

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]
Sent: Mon 12/8/2008 1:09 PM
To: Roderick, Daniel L.
Cc: Hunter, John J (Jamie); Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Dear Sir/ Madam:

Attached is the official Written Notice of Intent to Issue Air Permit for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0750088.001.AC.D_pdf.zip

Attention: Jeff Koerner

Owner/Company Name: PROGRESS ENERGY FLORIDA, INC.
Facility Name: LEVY NUCLEAR PLANT
Project Number: PSD-FL-403/0750088-001-AC Permit Status: DRAFT Permit Activity: CONSTRUCTION
Facility County: LEVY

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/eproducts/apds/default.asp>

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like

further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

Barbara Friday

Bureau of Air Regulation

Division of Air Resource Management (DARM)

(850)921-9524

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey

<<http://survey.dep.state.fl.us/?refemail=Barbara.Friday@dep.state.fl.us>> . Thank you in advance for completing the survey.

Friday, Barbara

From: System Administrator
To: Seiler, Ann
Sent: Monday, December 08, 2008 1:10 PM
Subject: Delivered:PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was delivered to the following recipient(s):

Seiler, Ann on 12/8/2008 1:10 PM

Friday, Barbara

From: Seiler, Ann
To: Friday, Barbara
Sent: Monday, December 08, 2008 1:10 PM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was read on 12/8/2008 1:10 PM.

Friday, Barbara

From: Seiler, Ann
Sent: Monday, December 08, 2008 1:18 PM
To: Friday, Barbara
Subject: RE: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Thank you Barbara.

Ann Seiler
Siting Coordination Office
3900 Commonwealth Blvd.
Tallahassee, FL 32399
(850) 245-2143
ann.seiler@dep.state.fl.us

From: Friday, Barbara
Sent: Monday, December 08, 2008 1:10 PM
To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Dear Sir/ Madam:

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Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0750088.001.AC.D_pdf.zip

Attention: Jeff Koerner

Owner/Company Name: PROGRESS ENERGY FLORIDA, INC.
Facility Name: LEVY NUCLEAR PLANT
Project Number: PSD-FL-403/0750088-001-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: LEVY

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Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

Barbara Friday

Bureau of Air Regulation

Division of Air Resource Management (DARM)

(850)921-9524

Friday, Barbara

From: System Administrator
To: Kirts, Christopher; Gibson, Victoria; Koerner, Jeff
Sent: Monday, December 08, 2008 1:10 PM
Subject: Delivered:PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was delivered to the following recipient(s):

Kirts, Christopher on 12/8/2008 1:10 PM
Gibson, Victoria on 12/8/2008 1:10 PM
Koerner, Jeff on 12/8/2008 1:10 PM

Friday, Barbara

From: Kirts, Christopher
To: Friday, Barbara
Sent: Tuesday, December 09, 2008 8:31 AM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was read on 12/9/2008 8:31 AM.

Friday, Barbara

From: Gibson, Victoria
To: Friday, Barbara
Sent: Monday, December 08, 2008 1:39 PM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was read on 12/8/2008 1:39 PM.

Friday, Barbara

From: Koerner, Jeff
To: Friday, Barbara
Sent: Monday, December 08, 2008 10:23 PM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was read on 12/8/2008 10:23 PM.

Friday, Barbara

From: System Administrator
To: Mulkey, Cindy; Livingston, Sylvia; Halpin, Mike
Sent: Monday, December 08, 2008 1:10 PM
Subject: Delivered:PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was delivered to the following recipient(s):

Mulkey, Cindy on 12/8/2008 1:10 PM
Livingston, Sylvia on 12/8/2008 1:10 PM
Halpin, Mike on 12/8/2008 1:10 PM

Friday, Barbara

From: Halpin, Mike
To: Friday, Barbara
Sent: Monday, December 08, 2008 1:10 PM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was read on 12/8/2008 1:10 PM.

Friday, Barbara

From: Mulkey, Cindy
Sent: Monday, December 08, 2008 1:10 PM
To: Friday, Barbara
Subject: Out of Office AutoReply: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT;
PSD-FL-403/0750088-001-AC

I will be out of the office December 4th and 5th.

I will be checking my email messages only periodically and will get back to you as soon as I can, however if you need immediate assistance, please call the main Siting Office switchboard at (850)-245-2002.

Friday, Barbara

From: Mulkey, Cindy
To: Friday, Barbara
Sent: Monday, December 08, 2008 1:15 PM
Subject: Read: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC

Your message

To: daniel.roderick@pgnmail.com
Cc: john.hunter@pgnmail.com; Kirts, Christopher; Halpin, Mike; Mulkey, Cindy; Forney.Kathleen@epamail.epa.gov; albert.ugelow@ch2m.com; Seiler, Ann; abrams.heather@epamail.epa.gov; Gibson, Victoria; Koerner, Jeff; Livingston, Sylvia
Subject: PROGRESS ENERGY FLORIDA, INC. - LEVY NUCLEAR PLANT; PSD-FL-403/0750088-001-AC
Sent: 12/8/2008 1:10 PM

was read on 12/8/2008 1:15 PM.

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@mseive01.rtp.epa.gov]
Sent: Monday, December 08, 2008 1:11 PM
To: Friday, Barbara
Subject: Successful Mail Delivery Report
Attachments: Delivery report; Message Headers

This is the mail system at host mseive01.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.


The mail system

<Forney.Kathleen@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250
OK, sent 493D6342_4644_29237_2 9111344397

<abrams.heather@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250
OK, sent 493D6342_4644_29237_2 9111344397

Florida Department of
Environmental Protection

Memorandum

To: Trina Vielhauer, Bureau of Air Regulation
From: Jeff Koerner, New Source Review Section 
Date: December 5, 2008
Subject: Revised Draft Air Permit No. PSD-FL-403
Project No. 0750088-001-AC
Progress Energy Florida, Inc., Proposed Levy Nuclear Plant
Revised Cooling Tower Project for Units 1 and 2

Progress Energy Florida, Inc. has submitted a site certification package to the Department's Power Plant Siting Office for the proposed 2000 MW nuclear power plant to be located in Levy County, Florida. A part of this package includes an application for an air permit to construct two mechanical draft cooling towers, four 4000 kW emergency standby generators, four 35 kW ancillary emergency generators and two 650 hp fire pumps. The project is subject to PSD preconstruction review for PM emissions. On July 31, 2008, the Permitting Authority issued a draft air construction permit for the project. Subsequently, the applicant filed for extensions of time to request an administrative hearing. On November 20, 2008, the Permitting Authority received technical comments from the applicant indicating that the engines for the emergency generators and fire pumps are not eligible for a categorical exemption from air permitting. As a result of these comments, I recommend rescinding the original draft permit package and issuing the attached revised draft air construction permit package for the project.

Attachments

TLV/jfk

P.E. CERTIFICATION STATEMENT

PERMITTEE

Progress Energy Florida, Inc.
P.O. Box 14042, SA2C
St. Petersburg, Florida 33733

Revised Draft Air Permit No. PSD-FL-403
Project No. 0750088-001-AC
Levy Nuclear Plant
Unit 1 and 2 Cooling Tower Project
Levy County, Florida

PROJECT DESCRIPTION

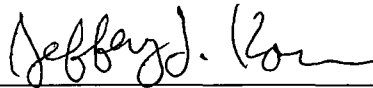
The Levy Nuclear Plant is a proposed major stationary source located in Levy County subject to the preconstruction review requirements of Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The applicant proposes to construct and operate two mechanical draft cooling towers as well as several diesel-powered emergency generators and fire pumps to support nuclear Units 1 and 2. As a result of the carry over of solids (primarily salt) in the water droplet drift, the cooling towers will emit particulate matter (PM) including particles with a mean diameter of 10 microns or less (PM₁₀). The emergency generators and fire pumps will operate for no more than 48 hours per year of non-emergency operation to ensure that each unit is functioning properly and available for emergency operation.

The applicant estimates potential PM emissions from the project to be 514 tons/year based on 8760 hours per year of operation, which exceeds the significant emissions rate of 25 tons/year. The fraction of PM emissions that are PM₁₀ are estimated to be 5.6 tons/year, which is less than the significant emissions rate of 15 tons/year. Studies show PM and PM₁₀ emissions rates from cooling towers increase as a function of the concentration of total dissolved solids (TDS) to about 4000 ppm. At TDS levels greater than 4000 ppm, PM₁₀ emissions rates decrease while total PM continues to increase. Therefore, the project is subject to PSD preconstruction review for PM emissions, but not for PM₁₀ emissions. No modeling is required since the modeled pollutant (PM₁₀) is not subject to PSD preconstruction review. Consistent with previous determinations for similar equipment, the Department concludes that the Best Available Control technology (BACT) for mechanical draft cooling towers is a design drift rate of 0.0005%.

Fuel combustion in the diesel-powered emergency generators, ancillary emergency generators and fire pumps will result in the following estimated combined annual emissions: 16.4 tons/year of NO_x, 0.07 tons/year of SO₂, 3.5 tons/year of CO, 1.4 tons/year of VOC and 1.2 tons/year of PM/PM₁₀. To minimize PM₁₀ emissions from these units, the Department determines BACT to be the firing of ultra low sulfur diesel with a maximum sulfur content of 0.00015% by weight.

Due to the extended construction schedule of the nuclear units, the applicant is required to submit a new BACT analysis and determination within two years prior to beginning construction of the cooling towers. If the Department's reassessment of BACT is substantially different from the initial determination, the applicant shall submit an application for a revised air construction permit, which will require a new Public Notice. The Department's full review of the project, BACT determinations and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).



Jeffery F. Koerner, P.E.
Registration Number 49441

12-5-08

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation
Draft Air Permit No. PSD-FL-403 / Project No. 0750088-001-AC
Progress Energy Florida, Inc., Levy Nuclear Plant Cooling Tower Project
Levy County, Florida

Applicant: The applicant for this project is Progress Energy Florida, Inc. The applicant's authorized representative and mailing address is: Daniel Roderick, Vice President, Nuclear Projects, Construction, Progress Energy Florida, Inc., P.O. Box 14042, SA2C, St. Petersburg, Florida, 33733.

Facility Location: Progress Energy Florida, Inc. proposes to construct a new nuclear power plant to be located approximately 4 miles northeast of the town of Ingilis and east of State Highway 19 in Levy County, Florida.

Project: To support new nuclear Units 1 and 2, the applicant proposes to construct and operate two mechanical draft cooling towers, four 4000 kilowatt (kW) emergency standby generators, four 35 kW ancillary emergency generators and two fire pumps. Based on the air permit application, the project will result in potential emissions of: 3.5 tons per year of carbon monoxide (CO); 16.4 tons per year of nitrogen oxides (NO_x); 507 tons per year of particulate matter (PM); 6.8 tons per year of particulate matter with a mean diameter of 10 microns or less (PM₁₀); 0.07 tons per year of sulfur dioxide (SO₂); and 1.4 tons per year of volatile organic compounds (VOC). Since annual PM emissions are greater than 250 tons/year, the project is subject to the preconstruction review requirements of Rule 62-212.400, Florida Administrative Code (F.A.C.) for the Prevention of Significant Deterioration (PSD) of Air Quality.

For each PSD-significant pollutant, the Department is required to determine the Best Available Control Technology (BACT). For the project, only PM emissions exceed the significant emissions rate. The Department's preliminary BACT determination for PM is: a design drift rate of 0.0005% for the new cooling towers; and the use of ultra low sulfur diesel ($\leq 0.00015\%$ by weight) in the generators and fire pump engines. No air quality modeling was required since the project is not subject to PSD preconstruction review for PM₁₀ emissions.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212, F.A.C. The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Permitting Authority responsible for making a permit determination for this project is the Bureau of Air Regulation in the Department of Environmental Protection's Division of Air Resource Management. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the physical address indicated above for the Permitting Authority. The complete project file includes the revised Draft Permit, the Technical Evaluation and Preliminary Determination, the application and information submitted by the applicant (exclusive of confidential records under Section 403.111, F.S.). Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site: <http://www.dep.state.fl.us/air/eproducts/apds/default.asp>.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit and

(Public Notice to be Published in the Newspaper)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

requests for a public meeting for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. In addition, if a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

Mediation: Mediation is not available in this proceeding.