

# Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

May 2, 2001

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED** 

Mr. N. Bert Gianazza, P.E. Environmental Permitting & Compliance JEA 21 West Church Street Jacksonville, Florida 32202-3139

Re: DEP File No. 0310045-007-AC; PSD-FL-265A

Northside Generating Station

Dear Mr. Gianazza:

Enclosed is one copy of the Draft PSD Permit Modification for the Northside Generating Station located at 4377 Heckscher Drive, Jacksonville, Duval County. The Department's Intent to Issue PSD Permit Modification and the "PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION" must be published in a newspaper of general circulation in Duval County. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven (7) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please call Mr. Syed Arif at 850/921-9528.

Sincerely,

C. H. Fancy, P.E., Chief Bureau of Air Regulation

CHF/sa

**Enclosures** 

In the Matter of an Application for Permit Modification by:

Mr. N. Bert Gianazza, P.E. Environmental Permitting & Compliance JEA 21 West Church Street Jacksonville, Florida 32202-3139

DEP File No. 0310045-007-AC; PSD-FL-265A Northside Generating Station Duval County

#### INTENT TO ISSUE PSD PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit modification (copy of DRAFT Permit Modification attached) for the proposed action, as detailed in the application specified above, for the reasons stated below.

The applicant, JEA, applied on March 22, 2001 to the Department for a permit modification to the design of the fly and bed ash handling systems at the Northside Generating Station located at 4377 Heckscher Drive, Jacksonville, Duval County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to install the thirty internal combustion engines at the existing facility.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Northside Generating Station 0310045-007-AC; PSD-FL-265A Page 2

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

A petition that disputes the material facts on which the Department'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's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, 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; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department'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.

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

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is

Northside Generating Station 0310045-007-AC; PSD-FL-265A Page 3

permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

C. H. Fancy, P.E., Chief Bureau of Air Regulation

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 5/3/0/ to the person(s) listed:

Mr. N. Bert Gianazza, P.E., JEA\*

Mr. C. Kirts, DEP-NED

Mr. J. Manning, RESD

Mr. G. Worley, EPA

Mr. J. Bunyak, NPS

Mr. H. Oven, PPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Charlette Hayes 5/3

(Date)

# PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0310045-007-AC; PSD-FL-265A

Northside Generating Station, JEA Jacksonville, Duval County

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD permit modification to JEA, for the Northside Generating Station located at 4377 Heckscher Drive, Jacksonville, Duval County. The permit modification facilitates changes to the ash handling system. The changes will allow boiler ash byproducts to be slurried and then pumped to the byproduct storage area as a dense slurry. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: JEA, 21 West Church Street, Jacksonville, FL 32202-3139.

The proposed changes will cause a net decrease of approximately 8 tons per year (tpy) of particulate matter and 1 tpy of PM<sub>10</sub> from the fly and bed ash handling systems currently permitted, and will meet the permitted BACT limits already established for the process.

An air quality impact analysis was not conducted. Emissions from the facility will not consume PSD increment and will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the Final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue PSD permit modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent,

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, 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; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department'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

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

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

Dept. of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida, 32301 Telephone: 850/488-0114

Fax: 850/922-6979

Dept. of Environmental Protection Northeast District 7825 Baymeadows Way, Suite B-200 Jacksonville, Florida 32256-7590

Telephone: 904/448-4300 Fax: 904/448-4363

Jacksonville Regulatory and Environmental Services Dept. 117 W. Duval St., Suite 225 Jacksonville, Florida 32202 Telephone: 904/630-4900 Fax: 904/630-3638

The complete project file includes the application, technical evaluations, Draft permit modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

# TECHNICAL EVALUATION

# AND

# PRELIMINARY DETERMINATION

# JEA

Northside Generating Station

Duval County

DEP File No. 0310045-007-AC PSD-FL-265A

Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

#### 1. GENERAL INFORMATION

#### 1.1 APPLICANT NAME AND ADDRESS

**JEA** 

Northside Generating Station 21 West Church Street Jacksonville, Florida 32202-3139

Authorized Representative: Bert Gianazza, P.E.

#### 1.2 REVIEWING AND PROCESS SCHEDULE

March 23, 2001

Received complete permit application

#### 2. FACILITY INFORMATION

#### 2.1 FACILITY LOCATION

The facility is located in Jacksonville, Duval County. The UTM coordinates are Zone 17; 446.7 km E; 3363.5 km N. This site is approximately 60 kilometers and 97 kilometers from the Okefenokee and Wolf Island National Wilderness Areas, respectively. Both of these areas are designated Class I PSD Areas.

#### 2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	49	Electric, Gas and Sanitary Services	
Industry No.	4911	Electric Services	

#### 2.3 FACILITY CATEGORY

The Northside Generating Station (NGS) consists of three boilers, four combustion turbines and an auxiliary boiler. Two of the boilers have been repowered using two new coal and petroleum coke fired circulating fluidized bed (CFB) boilers and ancillary equipment. The CFB boilers are connected to the existing Unit 1 and 2 steam turbines. The Repowering project retains the facility's generating capacity which currently consists of: two 297.5 MW steam turbine-electrical generator; one 564 MW steam turbine-electrical generator; and four 52.5 MW combustion turbine-generators. The ancillary equipment includes coal, petroleum coke, and limestone handling, storage, and processing facilities, a pebble lime silo, the air quality control systems, a 495-foot dual flued stack, ash/by-product handling, storage, and processing facilities, and an electrical substation. Operation of the existing steam boilers is currently authorized by Title V Final Permit No. 0310045-002-AV. Final Title V Permit was issued with an effective date of January 1, 1999 and expires on December 31, 2003.

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM<sub>10</sub>), sulfur dioxide, nitrogen oxides, carbon monoxide, or volatile organic compounds exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Based upon the Title V application, the facility is a major source of hazardous air pollutants.

#### 3. PROJECT DESCRIPTION

The Northside Repowering Project consists of two new CFB boilers (EU026 and EU027) designed to repower the existing steam turbines for Units 1 and 2. As permitted, the ash system for these units includes a fly and bed ash handling system for each CFB boiler. Each boiler consists of two trains of ash handling – one for fly ash and one for bed ash. A process flow diagram of the permitted fly and bed ash handling systems is attached.

# 3.1 PERMITTED FLY ASH HANDLING SYSTEM

On a per boiler basis, the permitted fly ash handling system consists of a particulate air quality control system that discharges into two (2) fly ash filter separators. Particulate emissions from the ash separators are controlled with

**JEA** 

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

fabric filters (EU036). The fly ash is then transferred into a fly ash silo. Particulate emissions from the fly ash silo are also controlled with a fabric filter (EU037). The dry fly ash from the fly ash silo is then either transferred into four hydrators located beneath the silo, or transported directly to enclosed tanker trucks for further processing and handling offsite. Particulate emissions resulting from the transfer of the dry fly ash into the hydrators are controlled using venturi scrubbers (EU039). Particulate emissions resulting from the transfer of the dry fly ash directly into the tanker trucks are controlled with fabric filters (EU041). Hydrated fly ash is transferred directly into dump trucks and transported to the by-product storage area (BSA). Particulate emissions resulting from the transfer of the hydrated fly ash into the dump trucks are permitted as fugitive sources (EU028r). An identical fly ash handling system is permitted for the other boiler.

#### 3.2 PERMITTED BED ASH HANDLING SYSTEM

On a per boiler basis, the permitted bed ash handling system transfers bed ash from the boiler to the bed ash silo. Particulate emissions resulting from the transfer are controlled with fabric filters (EU038). The bed ash is then either transferred into two (2) hydrators located beneath the bed ash silo, or transported directly to enclosed tanker trucks for further processing and handling offsite. Particulate emissions resulting from the transfer of the dry bed ash into the hydrators are controlled using venturi scrubbers (EU039). Particulate emissions resulting from the transfer of the dry bed ash directly into the tanker trucks are controlled with fabric filters (EU040). Hydrated bed ash is transferred directly into dump trucks and transported to the BSA. Particulate emissions resulting from the transfer of the hydrated bed ash into the dump trucks are permitted as fugitive sources (EU028r). An identical bed ash handling system is permitted for the other boiler.

#### 3.3 PROPOSED FLY ASH HANDLING SYSTEM MODIFICATIONS

The proposed modification to the fly ash handling system design includes the removal of all four (4) fly ash hydrators and associated control equipment (EU039), as well as the fly ash hydrated truck load out systems (EU028r) for each boiler. In place of the hydrators, fly ash pre-mixer tanks will be installed (one per fly ash silo) to slurry the fly ash. Particulate emissions resulting from the pre-mixer will be controlled using wet scrubber and fabric filter controls (EU051). After hydration in the pre-mixer, the fly ash will be pumped (fully enclosed) to the main ash mixing tanks located under each bed ash silo. The main ash mixers, or bed ash silo mixers, replace the bed ash silo hydrators in the original design. In the bed ash silo mixers, the fly ash will be formulated into a dense slurry with the bed ash. The resulting dense slurry ash will then be fed to a dense slurry pumping system that will pump the ash slurry to the BSA in a 4 inch pipeline.

The aforementioned dense slurry ash system and pipeline feed to the BSA will be the primary conveyance of fly ash, a dry fly ash truck load out capability, similar to the one already permitted, will be necessary to allow for the offsite transport and handling of the dry fly ash. However, unlike the currently permitted dry fly ash truck load out system and associated fabric filter emission point (EU041), the modified dry fly ash truck load out system will use a telescopic chute designed to collect the displaced air from the truck load out system and return it to the fly ash silo, thereby eliminating EU041. In the event of an emergency (i.e., complete malfunction and failure of the dense slurry ash handling system) dry fly ash can be trucked to the BSA and hydrated for BSA application using a jet ring. A process flow diagram of the proposed fly and bed ash handling systems is attached.

#### 3.4 PROPOSED BED ASH HANDLING SYSTEM MODIFICATIONS

The proposed modification to the bed ash handling system design includes the removal of the two (2) bed ash hydrators and associated control equipment (EU039), as well as the bed ash hydrated truck load out systems (EU028r) for each boiler. A surge bin with fabric filter control was added between the boiler and the silo. In place of the mixers, a double roll crusher and a mix tank were added to prepare the ash for mixing, combine it with the fly ash slurry and mix it into the dense slurry. The resulting dense slurry ash will be fed to a dense slurry pumping system that will pump the ash slurry to the BSA in a 4 inch pipeline. The particulate emissions resulting from the bed ash double roll crushers and the bed ash dry surge hopper waste bins will be collected and returned to the bed ash silos. Particulate emissions resulting from the operation of the bed ash silo mixer will be controlled using wet scrubber fabric filter controls (EU052). Particulate emissions from the surge bin are controlled with a fabric filter (EU053).

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Like the fly ash system, a dry bed ash truck load out capability, will be necessary to allow for offsite transport and handling of bed ash. However, unlike the currently permitted bed ash truck load out system and associated fabric filter emission point (EU040), the modified dry bed ash truck load out system will use a telescopic chute designed to collect the displaced air from the truck load out system and return it to the bed ash silo, thereby eliminating EU040. In the event of an emergency (i.e., complete malfunction and failure of the dense slurry ash handling system) dry bed ash can be trucked to the BSA and hydrated for BSA application using a jet ring. A process flow diagram of the proposed fly and bed ash handling systems is attached.

#### 3.5 SUMMARY OF PROPOSED MODIFICATIONS

The proposed modifications to the ash handling system design will result in the elimination of several permitted particulate emission units. In their place, three new emission units are proposed to support the dense slurry ash handling system design. The new emission units EU051 and EU052 will use wet scrubber and fabric filter technology and EU053 will use fabric filter technology to control particulate emissions to the BACT limit of 5 percent.

This project addresses the following new emissions units:

Emissions Unit No.	Emissions unit Description
051	Two (2) Fly Ash Silo Pre-Mixers (1 per Fly Ash Silo)
052	Two (2) Bed Ash Silo Mixers (1 per Bed Ash Silo)
053	Two (2) Bed Ash Surge Hoppers (1 per Boiler)

This project eliminates the following permitted emission units:

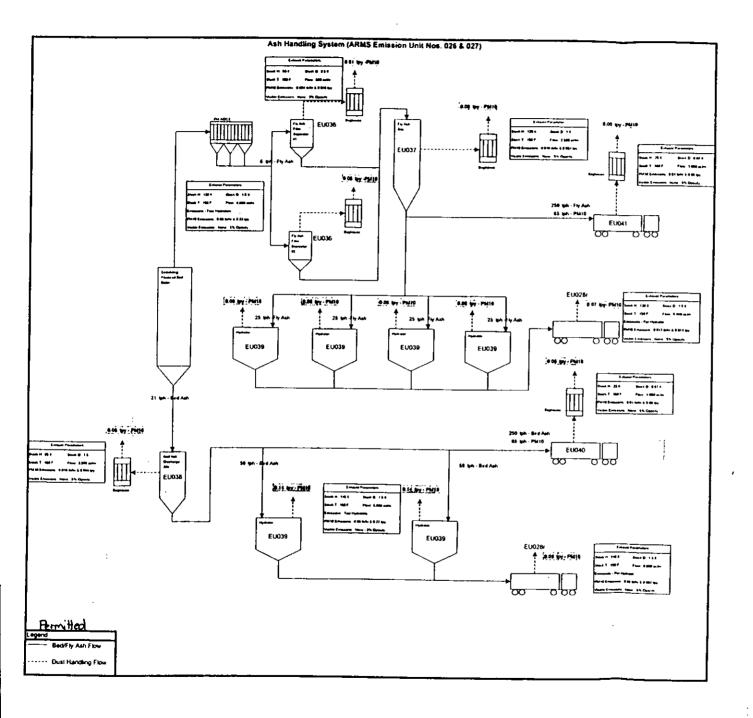
Emissions Unit No.	Emissions unit Description
039	Eight (8) Fly Ash Hydrators (4 per Fly Ash Silo) & Four (4) Bed Ash Hydrators (2 per Bed Ash Silo)
040	Two (2) Dry Bed Ash Truck Load Out Systems (1 per Silo)
041	Two (2) Dry Fly Ash Truck Load Out Systems (1 per Silo)
028r	Four (4) Hydrated Truck Load Out Systems (1 per Silo)
028f	Hydrated Ash Truck Hauling Fugitive Particulate Emissions

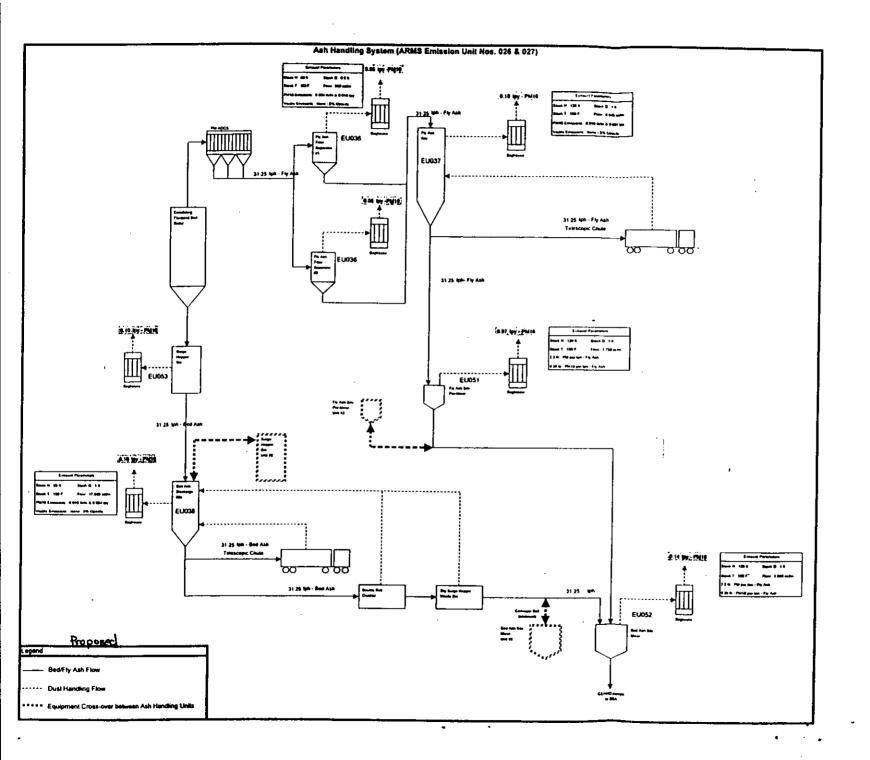
The new ash handling system design will result in a net decrease of approximately 8 TPY of PM and approximately 1 TPY of PM<sub>10</sub>.

#### 4. CONCLUSION

Based on the foregoing technical evaluation of the application and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Syed Arif, P.E. Review Engineer
Department of Environmental Protection, Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400





# May xx, 2001

# CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. N. Bert Gianazza, P.E. Environmental Permitting & Compliance JEA 21 West Church Street Jacksonville, Florida 32202-3139

Re: Northside Generating Station

DEP File No. 0310045-007-AC, PSD-FL-265A

Dear Mr. Gianazza:

The Department reviewed your letter and application dated March 22, 2001 requesting changes to the design of the fly and bed ash handling systems at the referenced facility. This request is acceptable to the Department. Permit PSD-FL-265 is hereby modified as follows:

# **SPECIFIC CONDITION 24.**

<u>Standards</u>: The materials handling sources at Northside shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the units or activities.

(a) The following materials handling sources shall be equipped with fabric filter controls and visible emissions shall not exceed 5 percent opacity:

Crusher house (EU29)

Boiler fuel silos (EU31)

Limestone receiving bins (EU32)

Limestone crusher conveyor transfers (EU34)

Limestone feed silos (EU35)

Fly ash waste bins (EU36)

Fly ash transfer and storage systems (EU37)

Bed ash transfer and storage systems (EU38)

Bed ash truck loadout systems (EU40)

Fly ash truck loadout systems (EU41)

Pebble lime silo (EU42)

Fly ash silo pre-mixers (EU51)

Bed ash silo mixers (EU52)

Bed ash surge hoppers (EU53)

(b) The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:

Transfer towers (EU28c, EU28g, EU28i, EU28o and EU28g)

Coal and petroleum coke storage building (EU28h)

Stacker/reclaimers (EU28)

Limestone lowering well (EU28d)

Conveyors (EU28)

Ash hydrator loadouts (EU28r)

(c) The following materials handling sources shall use wet suppression, water spray, partial enclosures, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 10 percent opacity:

Northside dock ship unloading operations – shiphold and receiving hoppers (EU28a)

Northside dock receiving conveyor (EU28a)

Limestone storage pile (EU28p)

Limestone reclaim hopper (EU28p)

- (d) The fly ash and bed ash silo hydrators (EU39) shall use a venturi scrubber and visible emissions shall not exceed 5 percent opacity.
- (e)(d) The limestone dryer/mill building shall have no visible emissions (other than from a baghouse vent).
- (f)(e) The maximum particulate matter emissions from the following operations shall not exceed 0.01 grains per dry standard cubic foot:

Limestone receiving bins (EU32)

Limestone crusher conveyor transfers (EU34)

Limestone feed silos (EU34)

### **SPECIFIC CONDITION 41.**

<u>Materials Handling Operations:</u> Visible emissions tests shall be conducted on the material handling operations to determine compliance with applicable limits, as follows:

Emissions Units at Northside	EPA	Duration of VE	Frequency	Material
	Meth	Test	•	
Shiphold (EU 28a)	od(s)	30 min	I only	C or PC
Ship Unloader & Spillage Conveyors (EU 28a)	9	3 hr	I only	C&LS
Conveyors (EU 28)	9	3 hr	I only	C & LS
Transfer Towers (EU 28c, 28g, 28i, 28q)	9	3 hr	I only	C & LS
Fuel Storage Building (EU28h)	9	30 min	I only	C or PC
Fuel Storage Pile - Stacking & Reclaiming (EU28)	9	30 min	I only	C or PC
Limestone Storage Pile (EU28p)	9	30 min	I only	LS
Hydrator Truck Loadout - 1 per silo @ Discharge (EU28r)	9	30 min	I only	Bed & Fly Ash
NSPS - 000			<u></u>	·
Limestone Receiving Bins – Baghouse Exhaust (EU32)	9-VE	IVE - 60 min	Meth 9: I & R	LS.
- • • • • • • • • • • • • • • • • • • •	5-PM	RVE - 30 min	Meth 5: I only	
Limestone Crusher Conveyor Transfer - Baghouse Exhaust	9-VE	IVE - 60 min	Meth 9: 1 & R	LS
(EU34)	5-PM	RVE - 30 min	Meth 5: I only	-
Limestone Feed Silos - Baghouse Exhaust (EU35)	9-VE	IVE - 60 min	Meth 9: I & R	LS.
	5-PM	RVE - 30 min	Meth 5: I only	
Limestone Dryer Building	22	IVE - 75 min	f only	LS
NSPS – Y				
Crusher House - Baghouse Exhaust (EU29)	9	IVE - 3 hr RVE - 30 min	1 & R	С
Boiler Feed Silos - Baghouse Exhaust (EU31)	9	IVE - 3 hr RVE - 30 min	I & R	С
Other			<del></del>	
Fly Ash Waste Bin - Baghouse Exhaust (EU36)	9	IVE - 30 min RVE - 30 min	1 & R	Ash
Fly Ash Silos - Baghouse Exhaust (EU37)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Silos - Baghouse Exhaust (EU38)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Hydrators - Scrubber Exhaust (15 min/hydrator) (EU39)	9	IVE - 60 min RVE - 60 min	I & R	Ash
Bed Ash Hydrators - Scrubber Exhaust (15 min/hydrator) (EU39)	9	IVE - 30 min RVE - 30 min	I & R-	Ash
Fly Ash Truck Loadout - Baghouse Exhaust (EU41)	9	IVE - 30 min RVE - 30 min	I-&-R-	Ash
Bed Ash Truck Loadout - Baghouse Exhaust (EU40)	9	IVE - 30 min - RVE - 30 min	1 & R	Ash
Pebble Lime Silo - Baghouse Exhaust (EU42)	9	IVE - 30 min RVE - 30 min	1 & R	Ash
Fly ash silo pre-mixers (EU51)	9	IVE - 60 min RVE - 60 min	<u>1 &amp; R</u>	Ash
Bed ash silo mixers (EU52)	9	IVE – 30 min RVE – 30 min	<u>I &amp; R</u>	Ash
	9	IVE – 60 min	1 & R	Ash

C – Coal

I – Initial R - Renewal (once every 5 years)IVE – Initial Visible Emissions Test, RVE - Renewal Visible Emissions Test

LS – Limestone; PC-Petroleum Coke

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by the filing of a Notice of Appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within (thirty) days after this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director Division of Air Resources

# **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT

MODIFICATION was sent by certifie close of business on		l by U.S. Mail before the
B. Gianazza, P.E., JEA*		
G. Worley, EPA		
J. Bunyak, NPS		
C. Kirts, DEP NED		
H. Oven, PPS		
J. Manning, RESD		
L. Sherrill, P.E., Black & Veatch Corp	<b>).</b>	
	Clerk Stamp	
	FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.	
	(Clerk)	(Date)

# Florida Department of Environmental Protection

TO:

Clair Fancy

THRU:

Allinero

FROM:

lived Arif Sach Auf 1/3

DATE:

April 30, 2001

SUBJECT:

JEA's Northside Generating Station - Design changes to the fly & bed ash

handling system

Attached for approval and signature is a PSD permit modification to JEA for the Northside Generating Station, located in Jacksonville, Duval County. The permit modification is to facilitate changes to the ash handling system. The changes will allow boiler ash byproducts to be slurried and then pumped to the byproduct storage area as a dense slurry.

The proposed changes will cause a net decrease of approximately 8 tons per year (tpy) of particulate matter and 1 tpy of PM<sub>10</sub> from the fly and bed ash handling systems currently permitted, and will meet the permitted BACT limits already established for the process.

I recommend your approval and signature.

April 30, 2001 is day 38 of the 90-day timeclock.

Attachments

/sa

SENDER: COMPLETE THIS SECTION  Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.	The state of the s
<ul> <li>Print your name and address on the reso that we can return the card to you.</li> <li>Attach this card to the back of the mail or on the front if space permits.</li> </ul>	C. Signature  X  Agent  Addressee
Article Addressed to:	D. Is delivery address different from item 1?  Yes If YES, enter delivery address below:  No
Mr. N. Bert Gianazza, P.E Environmental Permitting Compliance JEA	
21 West Church St. Jacksonville, FL 32202-313	3. Service Type  C Certified Mail
	4. Restricted Delivery? (Extra Fee)
2. Article Number (Copy from service label) 7099 3400 0000 1453 2146	. !
PS Form 3811, July 1999	Oomestic Return Receipt 102595-99-M-1789

746		Service D MAIL RECEIPT Only: No Insurance Coverage Provided)		
	Wildle Sell Id.			
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t 53	Postage	5		
-	Certified Fee	A6A		
0000	Return Receipt Fee (Endorsement Required)	Postmark Here		
	Restricted Delivery Fee (Endorsement Required)			
00 h E	Total Postage & Fees	\$		
. 6602	The (Please Print Clearly) (to be completed by maper)			
	21 West Church St.			
_	City, State, ZiP+4 Jacksonvil	Jacksonville, FL 32202-3139		
Ì	PS Form 3800, July 1999 See Beverse for Instructions			

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