Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 1, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. N. Bert Gianazza, P.E.
Environmental Health and Safety Group
Jacksonville Electric Authority
21 West Church Street
Jacksonville, Florida 32202-3139

Dear Mr. Gianazza:

RE: Letter Authorization for an Auxiliary Boiler Installation
Northside Generating Station

The Department received your letter on July 13, 1998, requesting that a letter be sent authorizing the installation of a 300 hp auxiliary boiler. The size of the proposed emissions unit is greater than 10 MMBTU/hr heat input, which makes it subject to the provisions of Rule 62-296.406, F.A.C. (includes BACT for SO_2 and PM) and potentially 40 CFR 60, Subpart Dc (date dependent). Since you indicated that it is a rental, it has been assumed that the boiler has been previously permitted and the permit will be/has been transferred to JEA. Therefore, please provide a copy of the permit so its conditions can be placed in the Title V permit currently under draft. If this is not the case, please submit an application for the emissions unit to the City of Jacksonville's Air and Water Quality Division for a construction permit. Once the permit has been issued, the conditions will be incorporated into the Title V permit.

If there are any questions, please call Bruce Mitchell at (850)921-9506, or write to me at the above address.

Sincerely,

C. H. Fancy, Chief
Bureau of Air Regulation

CHF/bm

cc: Patricia Comer, Esq., DEP
Richard Robinson, AWQD

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. N. Bert Gianazza, P.E.
Environmental Health and Safety Group
Jacksonville Electric Authority
21 West Church Street
Jacksonville, Florida 32202-3139

4a. Article Number
P 263 584 704

4b. Service Type
☐ Registered XXX ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery 9-8-98

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X D. Cross

PS Form 3811, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 263 584 704

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Mr. N. Bert Gianazza, P.E.	
Street & Number 21 West Church Street	
Post Office, State, & ZIP Code Jacksonville, FL 32202-3139	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 9/1/98 JEA - Northside Generating Station	

PS Form 3800, April 1995

0310045-002-AV

JACKSONVILLE ELECTRIC AUTHORITY

21 WEST CHURCH STREET • JACKSONVILLE, FL 32202-3139

July 7, 1998

Mr. Bruce Mitchell
Environmental Administrator
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Northside Generating Station
Title V Permit - Supplemental Information

Dear Mr. Mitchell:

Below please find additional comments relating to the Northside Generating Station Title V permit.

1. We request letter authorization, to be added to the Title V permit, to operate an auxiliary rental boiler rated at up to 300 HP. The primary fuel would be natural gas with #2 oil serving as backup in the event of gas curtailment.

2. We request clarifying language stating that the heat input value calculated by the CEMs is not the method of compliance with the heat input limit.

3. Attached please find a heat input curve for the Northside combustion turbines. Since manufacturer curves are unavailable, this curve is a regression curve developed empirically in-house. As such the heat input at each temperature is a nominal value (with approximately 50% of observations above the line and 50% of observations below the line) and should not be considered a limit, only a nominal value for determination of full load for VE testing purposes.

4. Attached please find an updated O&M plan for the Northside Generating Station.

5. In condition A.3.b. the sum of the oil inputs to units 1,2, and 3 listed as 1,440,000 is incorrect. Since each unit is limited, this limit is redundant and should be removed. Also, since fuel heat content varies, and the unit is limited on heat input as opposed to mass input, this redundant limit should be removed.

6. Attached please find the pertinent pages from our Title V permit application showing corrections to the stack heights and diameters.

7. On page 8, item A.11, please add a reference to item A.17.

If you have any questions with regard to this matter, please contact me at (904) 632-6247.

Sincerely,

N. Bert Gianazza, P.E.
Environmental Health
and Safety Group

NBG

NORTHSIDE STATION COMBUSTION TURBINES
BASE LOAD MW vs TEMPERATURE

#	AMBIENT TEMP *F	GROSS MW (X)	x Coeff. Net MW	HEAT CONSUMED MBTU/HR	AMBIENT TEMP *F	GROSS MW (X)	x Coeff. Net MW	HEAT CONSUMED MBTU/HR
1	20	67.97	67.63	868	60	58.77	58.43	747
2	21	67.74	67.40	865	61	58.54	58.20	744
3	22	67.51	67.17	861	62	58.31	57.97	741
4	23	67.28	66.94	858	63	58.08	57.74	738
5	24	67.05	66.71	855	64	57.85	57.51	735
6	25	66.82	66.48	852	65	57.62	57.28	733
7	26	66.59	66.25	849	66	57.39	57.05	730
8	27	66.36	66.02	846	67	57.16	56.82	727
9	28	66.13	65.79	842	68	56.93	56.59	724
10	29	65.90	65.56	839	69	56.70	56.36	721
11	30	65.67	65.33	836	70	56.47	56.13	719
12	31	65.44	65.10	833	71	56.24	55.90	716
13	32	65.21	64.87	830	72	56.01	55.67	713
14	33	64.98	64.64	827	73	55.78	55.44	710
15	34	64.75	64.41	824	74	55.55	55.21	708
16	35	64.52	64.18	821	75	55.32	54.98	705
17	36	64.29	63.95	818	76	55.09	54.75	702
18	37	64.06	63.72	815	77	54.86	54.52	699
19	38	63.83	63.49	812	78	54.63	54.29	697
20	39	63.60	63.26	809	79	54.40	54.06	694
21	40	63.37	63.03	806	80	54.17	53.83	691
22	41	63.14	62.80	802	81	53.94	53.60	689
23	42	62.91	62.57	799	82	53.71	53.37	686
24	43	62.68	62.34	796	83	53.48	53.14	683
25	44	62.45	62.11	793	84	53.25	52.91	681
26	45	62.22	61.88	791	85	53.02	52.68	678
27	46	61.99	61.65	788	86	52.79	52.45	675
28	47	61.76	61.42	785	87	52.56	52.22	673
29	48	61.53	61.19	782	88	52.33	51.99	670
30	49	61.30	60.96	779	89	52.10	51.76	667
31	50	61.07	60.73	776	90	51.87	51.53	665
32	51	60.84	60.50	773	91	51.64	51.30	662
33	52	60.61	60.27	770	92	51.41	51.07	660
34	53	60.38	60.04	767	93	51.18	50.84	657
35	54	60.15	59.81	764	94	50.95	50.61	654
36	55	59.92	59.58	761	95	50.72	50.38	652
37	56	59.69	59.35	758	96	50.49	50.15	649
38	57	59.46	59.12	755	97	50.26	49.92	647
39	58	59.23	58.89	753	98	50.03	49.69	644
40	59	59.00	58.66	750	99	49.80	49.46	641
41	60	58.77	58.43	747	100	49.57	49.23	639

KSCT	
Y INTERCEPT	72.576
SLOPE	0.2301

DISPATCH HEAT RATE CURVES

A =	1.78910E+02
B =	8.82453E+00
C =	-1.50705E-02
D =	5.20028E-04
AA =	3.40192E-01
BB =	9.99987E-01
CC =	1.79499E-07
DATE:	05/21/93

Jacksonville Electric Authority

Operation and Maintenance Plan

Operation and Maintenance

Following is a list of activities to be accomplished for the control of particulate emissions from units in or impacting the Duval County maintenance areas. These schedules apply to each on-line unit.

Daily:

1. Check and clean burners (renew tips as necessary) daily.
2. Conduct one complete soot-blowing cycle (or as needed).
3. Maintain optimum fuel oil temperature and pressure at all times.

Weekly:

1. Clean low pressure fuel oil strainers (more frequently if required).
2. Clean other fuel oil strainers as needed by monitoring the pressure drop.

Annually:

1. Clean the boiler and inspect baffles.
2. Inspect the:
   (a) wind box;
   (b) registers;
   (c) diffusers;
   (d) refractory throat;
   (e) scanners;
   (f) ignitors.
3. Adjust the air registers for optimum flame pattern with assistance from Engineering Services.
4. Replace burner tips (more frequently if required).

As Needed:

1. Wash furnace and air heaters.

Major Outages:

1. Overhaul the: (a) turbine/generator
   (b) boiler and auxiliary equipment.
2. Calibrate the: (a) flow meters including sensing line checks;
   (b) pneumatic controls;
   c) temperature gauges.

Performance Parameters

The following operational parameters are to be recorded on a bi-hourly basis.

1. Steam flow.
2. Burner oil pressure.
3. Burner oil temperature.

Fuel Type: Number 6 residual oil unless otherwise stated.

Records

Records of all operating data and maintenance procedures listed herein shall be retained at the Generating Station for review, upon request, for a period of five (5) years.

Emissions Unit Information Section 1 **of** 6

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:	Stack 1
2. Emission Point Type Code: [XX] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	A single stack serving a single boiler
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	N/A
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [XX] V [ ] W	
6. Stack Height:	250 ~~168~~ feet
7. Exit Diameter:	16 ~~11.1~~ feet
8. Exit Temperature:	approx. 286 °F

Emissions Unit Information Section 2 **of** 6

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:	Stack 2
2. Emission Point Type Code: [XX] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	A single stack serving a single boiler.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	N/A
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W	
6. Stack Height:	~~195~~ 300 feet
7. Exit Diameter:	~~11.1~~ 16 feet
8. Exit Temperature:	approx. 280 °F

Emissions Unit Information Section 3 **of** 6

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Stack 3
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): a single stack serving a single boiler
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W
6. Stack Height: ~~235.3~~ 300 feet
7. Exit Diameter: ~~15.5~~ 23 feet
8. Exit Temperature: approx. 305 °F