



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

December 18, 2002

CERTIFIED MAIL – Return Receipt Requested

Mr. James M. Chansler, P.E., D.P.A.  
V.P., Operations & Maintenance and Responsible Official  
JEA  
21 West Church Street  
Jacksonville, Florida 32202

Re: Request For Additional Time to Respond to an Incompleteness Letter  
Title V Air Operation Permit Revision Application  
Northside Generating Station  
Permit Project No.: 0310045-010-AV  
Facility ID: **0310045**  
Nos. 1 and 2 Circulating Fluidized Bed Boilers

Dear Mr. Chansler:

On December 10, 2002, the Department received Mr. N. Bert Gianazza's letter request for additional time (60-day extension) to respond to an incompleteness letter dated September 18, 2002. Pursuant to Rule 62-213.420(1)(b)6.b., F.A.C., the request is acceptable and the 60-day extension is granted, which concludes on February 15, 2003, close of business.

If you have any other questions, please contact Bruce Mitchell at 850/413-9198.

Sincerely,

Trina Vielhauer, Chief  
Bureau of Air Regulation

TLV/SMS/bm

Enclosure

cc: Scott M. Sheplak, P.E.

*"More Protection, Less Process"*

*Printed on recycled paper.*

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DEC 10 2002

BUREAU OF AIR REGULATION

December 9, 2002



Mr. Scott Sheplak, P.E.  
Administrator  
Bureau of Air Regulation  
Division of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

ELECTRIC

WATER

SEWER

RE: Northside Generating Station Units 1 and 2  
Permit No. 0310045-008-AV

Dear Mr. Sheplak:

In response to your incompleteness letter dated September 18, 2002, and per my conversations with Bruce Mitchell of your staff, please issue a 60-day extension for providing the required response.

This additional time is needed to address the item in your letter and provide other information required by the Department to process our application.

If you have any questions, please call me at (904) 665-6247.

Sincerely,

N. Bert Gianazza, P.E.  
Environmental Services

cc: Bruce Mitchell, P.E., FDEP  
Steve Pace, P.E., RESD

**Mitchell, Bruce**

**To:** Linero, Alvaro; Comer, Patricia  
**Cc:** Sheplak, Scott; Vielhauer, Trina  
**Subject:** FW: Meeting with JEA on Excess Emissions Issues

12/17/02

Any comments?

Bruce

-----Original Message-----

**From:** Wayne Tutt [mailto:TUTT@coj.net]  
**Sent:** Thursday, December 12, 2002 11:23 AM  
**To:** Dana Brown; Steve Pace; Ron Roberson; Richard Robinson; Wayne Walker; Jerry Woosley  
**Subject:** Meeting with JEA on Excess Emissions Issues

A meeting has been scheduled with JEA on Wednesday, January 8th, at 2pm to discuss various issues which have come up regarding excess emissions. The repowered units at Northside Generating Station have experienced "malfunctions", which have resulted in emissions of SO<sub>2</sub> above the permitted limit of 0.2#/ MMBtu, 24 hour average. Permit no. 031 004803 AC, condition 26., Excess Emissions, states in part "...excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized but in no case exceed twelve (12) hours in any 24 hour period for a startup on Units 1 and 2 ( which shall not be started up at the same time ) or two (2) hours in any 24 hour period for other reasons and for all other units and operations unless specifically authorized by DEP or RESD for longer duration." Condition 35., Valid Data, states in part ".Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction as defined in Rule 6210.200 where emissions exceed the standards in Table 1. These excess emission periods shall be reported as required in Section II, Condition 13." CFR 60.46a(g) states in part " Compliance is determined by calculating the arithmetic average of all hourly emission rates for SO<sub>2</sub> and NO<sub>x</sub> for 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO<sub>x</sub> only), or emergency conditions (SO<sub>2</sub> only)." Bert Gianazza has raised the following questions. If , during the process of starting up, the unit experiences a malfunction, does the unit get 12 hours for startup excess emissions plus another 2 hours excess emissions for malfunction, or would the 2 hour malfunction time be included in the 12 hour startup time? 2. If JEA sees that emissions are so high that they cannot meet the 24 hour SO<sub>2</sub> limit, can they shut the unit down prior to completing 24 hours operation, at 11pm for example, and avoid a violation? Would we consider that "gaming the system", and not allow it? 3. In calculating compliance with the 24 hour SO<sub>2</sub> standard, can they toss out the 2 hours or more of data during the malfunction ( providing it was a bona fide malfunction) ? Notethe permit seems to indicate yes, but NSPS Subpart Da seems to say no, except for NO<sub>x</sub>. 4. Under what circumstances would RESD authorize longer than 2 hours duration for excess emissions due to malfunction? 5. For nights and weekends, how would such authorization be obtained? Please everyone put on your thinking caps, and see if we can go into this meeting with a reasonable answer to these questions. I would like to meet with the Air Section brain trust ( if you are copied on this e mail, you are a brain truster) prior to the meeting with JEA, maybe sometime during January 2, to discuss this. Thanks.

12/17/2002

**Mitchell, Bruce**

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**To:** Richard Robinson  
**Subject:** RE: Meeting with JEA on Excess Emissions Issues

12/17/02

Dear Richard,

Got your message and attachment and will evaluate. Don't have an immediate response, but we will get back to you ASAP. Thanks for the heads-up on the issue...did not know that there was an issue with "excess emissions". I forwarded your note and attachment to Pat Comer, Scott Sheplak, and Trina Vielhauer for input. Take care and wishing you and staff a safe and Happy Holidays!

Bruce

-----Original Message-----

**From:** Richard Robinson [mailto:ROBINSON@coj.net]  
**Sent:** Tuesday, December 17, 2002 9:28 AM  
**To:** Mitchell, Bruce  
**Cc:** Wayne Tutt; Arif, Syed; GianNB@jea.com  
**Subject:** Fwd: Meeting with JEA on Excess Emissions Issues

See attached e-mail from Wayne Tutt, Compliance Supervisor, AWQD. Could you and Syed review the e-mail and give me your thoughts on the questions posed by Bert Gianazza, JEA, concerning excess emissions?

Your input would be appreciated!

Richard L. Robinson, P.E., Manager  
Air Pollution Source Permitting Section  
Air & Water Quality Division  
City of Jacksonville, FL  
117 West Duval Street, Suite 225  
Jacksonville, FL 32202

Phone: (904) 630-4900  
Fax: (904) 630-3638  
E-Mail: [robinson@coj.net](mailto:robinson@coj.net)



December 9, 2002

Mr. Scott Sheplak, P.E.  
Administrator  
Bureau of Air Regulation  
Division of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Northside Generating Station Units 1 and 2  
Permit No. 0310045-008-AV

Dear Mr. Sheplak:

In response to your incompleteness letter dated September 18, 2002, and per my conversations with Bruce Mitchell of your staff, please issue a 60-day extension for providing the required response.

This additional time is needed to address the item in your letter and provide other information required by the Department to process our application.

If you have any questions, please call me at (904) 665-6247.

Sincerely,

N. Bert Gianazza, P.E.  
Environmental Services

cc: ✓ Bruce Mitchell, P.E., FDEP  
Steve Pace, P.E., RESD

CERTIFIED MAIL

EV 111802

November 18, 2002



Mr. E. Frey  
Florida Dept. of Environmental Regulation  
7825 Baymeadows Way, Suite 200B  
Jacksonville, Fl. 32256-7577

RE: JEA / St. Johns River Power Park (SJRPP) Units 1 & 2  
COC Permit No. PA-81-13  
Title V Permit No. 0310045-002-AV  
Notification of Annual Performance Test and Relative Accuracy Test Audit  
(RATA)

Dear Mr. Frey:

The annual performance test, for the above referenced facility, is required to be conducted as specific in the SJRPP Conditions of Certification and Title V permit.

The testing is tentatively scheduled to commence December 9, 2002, in conjunction with the RATA of the Continuous Emission Monitoring System (CEMS). In the event there is a change in the testing schedule your office shall be notified.

Please contact me at (904) 665-8729 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jay Worley".

Jay Worley  
SJRPP Group Leader, Bulk Materials

xc: H. Oven, FDEP  
B. Mitchell, FDEP  
W. Tutt, RESD  
W. Smith, EPA

RECEIVED

NOV 20 2002

BUREAU OF AIR REGULATION

**Mitchell, Bruce**

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**To:** Gianazza, N. Bert

**Subject:** RE: CAM Plan

8/6/02

Bert,

Thanks for the CAM Plan submittal. We will evaluate it and respond ASAP. Take care.

Bruce

-----Original Message-----

**From:** Gianazza, N. Bert [mailto:GianNB@jea.com]

**Sent:** Tuesday, August 06, 2002 9:18 AM

**To:** Mitchell, Bruce

**Subject:** FW: CAM Plan

Bruce, for your review and comment. Please call me as soon as you can regarding this. Sorry for not sending it earlier. I seem to stay behind these days.

We need to submit our application for Unit 2 this week. We went ahead and included Unit 1 in the application even though we don't have the stack test results, etc. yet for that unit. I need to talk to you about how you want to handle Unit 1.

Later, Bert 904-665-6247

-----Original Message-----

**From:** Goodrich, William G.

**Sent:** Thursday, August 01, 2002 2:43 PM

**To:** 'Gujjarlapudi, Ebenezer S.'

**Cc:** Gianazza, N. Bert

**Subject:** RE: CAM Plan

I did have some editorial comments and some correction of (my own) typos. Comments are in red.

<<JEA baghouse protocol.doc>>

**Bill Goodrich**

Phone 904-665-6604

Fax 904-665-4993

Pager 904-442-1602

-----Original Message-----

**From:** Gujjarlapudi, Ebenezer S. [SMTP:GujjarlapudiES@bv.com]

**Sent:** Thursday, August 01, 2002 8:41 AM

8/6/2002

8-7-02  
01:03 SPSH  
Bank - looked Ok  
via Jonathan yesterday  
Discussion

**To:** Goodrich, William G.

**Cc:** Gianazza, N. Bert

**Subject:** CAM Plan

Bill:

Please find attached the CAM Plan that incorporates changes as we discussed yesterday. I also altered some language throughout the document. Please review and let me know if you have any questions or changes.

<<JEA baghouse protocol.doc>>

If you have any questions or need any additional information, please feel free to contact me.

Regards,

Ebenezer S.Gujjarlapudi, P.E.

Environmental Engineer

Black & Veatch Corporation

10751 Deerwood Park Blvd, Suite 130

Jacksonville, FL 32256

Ph: (904) 997-7106

Fax: (904) 641-7860

<< File: JEA baghouse protocol.doc >>



**Sheplak, Scott**

Brown for

**From:** Dana Brown [DLBROWN@coj.net]  
**Sent:** Friday, April 11, 2003 5:50 PM  
**To:** Pennington, Jim  
**Cc:** James Manning; Tracey Arpen; Wayne Tutt; Linero, Alvaro; Sheplak, Scott; Vielhauer, Trina  
**Subject:** Re: PSD Applicability Determinations

Scott

Jim-

One minor correction I need to make- I am not sure JEA has actually retained legal counsel - Angela or anyone else - I only know that Bert has mentioned her name several times. Today, I spoke once again with our OGC attorney raising the issue of legal representation of JEA and they have assured me that their office will not be representing JEA in this matter due to our SOA language and your concerns.

Thanks for your input today, it was very helpful. As soon as we get a draft Consent Order with Compliance Plan ready for review, I will E-mail you a copy. I will also inform JEA of 1) their need to submit the project list to DEP-Tallahassee for PSD applicability review; and, 2) that the compliance plan will be rolled into their Title V permit. I'm not sure of the time frame for issuance of the Title V permit, but I believe JEA is hoping to have these projects completed by the end of the summer.

Thanks again for your assistance.

D

>>> "Pennington, Jim" <Jim.Pennington@dep.state.fl.us> 4/11/2003 11:19:27 AM >>>  
Dana,

Thanks for letting us know about the JEA Northside enforcement case. It is my understanding that you have already advised the Company to obtain outside legal counsel in compliance with the SOA and that they have retained Angela Morrison as their attorney of record. The SOA also addresses the issue of enforcement lead and at this time RESD has the lead.

As we discussed, you are preparing a Consent Order with a compliance schedule for the numerous projects that the Company needs to complete. Subsequently, this schedule will be included in the Title V permit as a compliance plan.

In order for the Company to receive assurances that PSD has not been triggered by the projects in the compliance plan, they will need to submit details to the New Source Review Section so as to be able to obtain PSD applicability determinations. Al Linero has agreed to provide staffing for the review of these projects.

Please let me know if I may be of any assistance,

Jim P.

**Mitchell, Bruce**

**To:** Gianazza, N. Bert  
**Cc:** Sheplak, Scott  
**Subject:** RE: Part 60 Quaterly/Semi-annual Reporting, D.60 Title V Permit  
11/1/02

Bert,

To incorporate the change of the reporting frequency at 40 CFR 60.49a(i) would impose a Revision or Renewal process. However, for expediency purposes, you can request the change without permit revision pursuant to Rule 62-213.410(2), F.A.C., but there will be no permit shield available under this process. Then, upon the next opening of the permit (Revision or Renewal), we can incorporate the text change of the Subpart. If there are any questions, please give me a call at 850/413-9198. Take care.

Bruce

*11-14-02  
D 4:15 Mark has left the  
company - Bert said that  
he will not be pursuing this issue  
at this time. Bm  
11-14-02  
23:14  
left a v.m.m for  
Mark to call me when  
he gets back into the  
office - out till the 12th of November*

-----Original Message-----

**From:** Gianazza, N. Bert [mailto:GianNB@jea.com]  
**Sent:** Monday, October 28, 2002 8:50 AM  
**To:** Mitchell, Bruce  
**Cc:** Loechelt, Mark K. - Production Assurance Leader  
**Subject:** FW: Part 60 Quaterly/Semi-annual Reporting, D.60 Title V Permit

Bruce, can you answer Marks question below?

Tx, Bert

-----Original Message-----

**From:** Loechelt, Mark K. - Production Assurance Leader  
**Sent:** Sunday, October 27, 2002 8:03 PM  
**To:** Gianazza, N. Bert  
**Cc:** Worley, Jay A. - Group Leader A/W Quality Production  
**Subject:** Part 60 Quaterly/Semi-annual Reporting, D.60 Title V Permit

As I'm unable to find Bruce Mitchell's number (all are outdated) or e-mail address on FDEP, so I need your forwarding assistance. NGS/SJRPP Title V permit D.60, referencing 40 CFR 60.49a(i), states that quarterly reports are required. The new passage, indicates semi-annual. D.59 referencing opacity, did not change.

May I proceed with semi-annual or must I await official permit change to proceed? I'd like to commence at once, to get me on track if possible, so if you could forward to Bruce requesting his timely response I'd appreciate it !!!

Thanks, Mark  
(904)665-8797

#### **40 CFR 60.49a Reporting requirements.**

(h) For the purposes of the reports required under §60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under §60.42a(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.

(i) The owner or operator of an affected facility shall submit the written reports required under this section and subpart A to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

[§60.49a(i) amended at 63 FR 49454, Sept. 16, 1998; 64 FR 7464, Feb. 12, 1999]

**REGULATORY & ENVIRONMENTAL SERVICES DEPARTMENT**

**Air and Water Quality Division**



August 26, 2002

Ms. Susan Hughes  
Vice President  
Environmental, Health, and Safety Group  
Jacksonville Electric Authority  
21 W. Church St., Tower 8  
Jacksonville, FL 32202-3139

**RECEIVED**

AUG 29 2002

BUREAU OF AIR REGULATION

**RE: Initial Performance Testing Report --- Petroleum Coke Fired  
JEA Northside  
No. 2 Circulating Fluidized Bed (CFB) Boiler  
Particulate Matter (PM and PM<sub>10</sub>), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxides (SO<sub>2</sub>),  
Carbon Monoxide (CO), Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>), Lead (Pb), Fluoride (F),  
Volatile Organic Compounds (VOC), and Mercury (Hg) Emissions  
Permit Numbers: 031-0045-007-AC; PSD-FL-265A  
Test Dates: May 20 and 21, 2002**

Dear Ms. Hughes:

This is to acknowledge receipt and review of the above captioned test report, submitted July 3, 2002. JEA Northside has fulfilled the requirements of PM, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, Pb, F, VOC, and Hg emissions testing as stipulated in the referenced permit for the #2 CFB Boiler.

It is noted, however, that the test of H<sub>2</sub>SO<sub>4</sub> emissions does not demonstrate compliance for the following reason:

The average emission rate was 3.13 lbs. per hour, as opposed to the permitted allowable of 1.1 lbs. per hour.

This report is being referred to the Air and Water Quality Division's (AWQD) Enforcement activity for possible action. JEA will be contacted in the near future regarding this issue. Be advised that continued operation of this source will constitute a violation of permit conditions for each day of operation until a satisfactory retest is performed.

It is understood that the H<sub>2</sub>SO<sub>4</sub> retest conducted on June 16<sup>th</sup> also failed to demonstrate compliance. That test report was due to be submitted to our office for review on or before July 31<sup>st</sup>, and is now past due. Please submit said report at the earliest possible opportunity. The H<sub>2</sub>SO<sub>4</sub> retest conducted July 25<sup>th</sup> is due to be submitted to our office on or before September 8<sup>th</sup>.

**Ms. Susan Hughes**  
**Jacksonville Electric Authority**  
**Page 2**

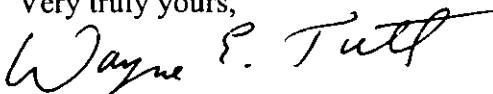
Additionally, it is noted that PM testing of this emission unit was conducted via 60-minute test runs and 30 DSCF sample volumes, as opposed to the 120-minute test run and 60 DSCF sample volume requirements of NSPS Subpart Da, 40 CFR 60.48a(b)(2)(i). It is understood from a phone conversation with Mr. Syed Arif that FDEP, with agreement from EPA Region IV, has granted JEA Northside relief from the PM testing requirements of NSPS Subpart Da because the BACT-determined PM limit of 0.011 lbs/MMBtu is more stringent than the 0.03 lbs/MMBtu limit of Subpart Da. In granting this relief, it is understood that Mr. David McNeal of EPA Region IV expressed an opinion that as long as the PM catch (probe wash + filter weight) averaged at least 50 milligrams (mgs), that would provide enough of a sample to determine compliance, and there would be no need to perform the 2-hour test runs required by Subpart Da.

It is noted that the three 60-minute sampling runs of May 20, 2002 produced PM catches of 10.1, 13.9, and 11.6 mgs., for an average of ~ 12 mgs. Additionally, the June 29, 2002 coal-fired PM testing of unit No. 2, which was recently submitted for review, produced PM catches of 7.9, 4.0, and 6.3 mgs., for an average of ~ 6 mgs.

Because neither of the first two PM tests of unit No. 2 has achieved the 50 mgs. criteria suggested by EPA Region IV, AWQD believes JEA Northside should conduct 2-hour, 60 DSCF PM test runs, as per Subpart Da, for all future compliance testing of units No. 1 and No. 2. The increased sample time/volume would provide better assurance that the two CFB boilers are meeting the permitted PM emission limit of 0.011 lbs/MMBtu. Because this may require modifying JEA's permit to reflect compliance based on a six-hour average, rather than the currently stated three-hour average, AWQD is forwarding copies of this letter to FDEP and EPA Region IV for review and possible permitting action.

If there are any questions concerning these matters, please contact Mr. Wayne Walker at 630-1212 ext. 3164.

Very truly yours,



Wayne E. Tutt, QEP  
Environmental Program Supervisor

WET/WLW/vgw

c: Mr. David McNeal, EPA Region IV  
Mr. Syed Arif, FDEP  
✓ Mr. Bruce Mitchell, FDEP  
Ms. Dana B. Brown, Environmental Enforcement Administrator, AWQD  
AWQD File 0045 B

**Mitchell, Bruce**

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**From:** Gianazza, N. Bert [GianNB@jea.com]

**Sent:** Friday, May 31, 2002 9:48 AM

**To:** Linero, Alvaro; Mitchell, Bruce; Cascio, Tom; Kirts, Christopher; Costello, Martin; Kahn, Joseph; Gay, John; Costello, Martin; Banks, Richard; Steve Pace; Arif, Syed; Wayne Tutt; Wayne Walker

**Subject:** Northside Repowering Update

Fyi. This was released yesterday (Thursday, May 30).

**Northside Repowering Project Update**

Northside Unit 1 came on line at approximately 11 a.m. Wednesday, May 29, burning solid fuel for the first time in its history. This is the second of our electric generating units to be converted from conventional gas/oil fuel operation to the new Circulating Fluidized Bed boiler clean coal technology that burns coal and/or petroleum coke. Unit 3 came on line early this morning, marking the first time since 1982 that all of Northside's three units have been on line simultaneously. Today, Northside 1 and 2 are each capable of producing approximately 300 MW of power.

ENV 122101

CERTIFIED MAIL



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DEC 26 2001

BUREAU OF AIR REGULATION

December 21, 2001

Al Linero, P.E.  
Division of Air Resources Management  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399

RE: St. Johns River Power Park (SJRPP), Site Certification No. PA-81-13  
PSD Permit No. PSD-FL-010; Title V Permit No. 0310045-002-AV  
Burner Component Replacement Project

Dear Mr. Linero:

In an effort to reduce nitrogen oxides (NOx) emissions from the St. Johns River Power Park's two steam generating units, SJRPP plans to replace some of the existing burner components with new ones using state-of-the-art designs. With the burner component replacements, both NOx and carbon monoxide (CO) emissions will be reduced. The first phase of this project is planned for the first quarter of 2002, followed by a second phase in 2003 and the final phase in 2004. Because this is a replacement project resulting in reduced emissions, no permit or permit revision is necessary.

The two 660 MW coal-fired steam generating units began operating in 1986 and 1988 respectively. The Prevention of Significant Deterioration permit and Conditions of Certification limited NOx emissions to 0.60 pounds per million British thermal units (lb/mmBtu) on a 30-day rolling average basis while firing solid fuel. Through an early election under the federal Acid Rain Program, the units' annual average NOx emissions were subsequently limited to 0.50 lb/mmBtu beginning on January 1, 1997. This limit will remain in effect only through January 1, 2008, at which time a much lower annual average NOx limit will be imposed. In anticipation of the lower NOx limit, SJRPP is planning the above-mentioned burner component replacements starting early next year.

Initially SJRPP will replace components on eight of Unit No. 2's twenty-eight existing burners during the Spring 2002 outage to ensure that the equipment operates as efficiently and as effectively as planned before making a further investment in this technology. Assuming that the NOx and CO reductions are as expected, and based on scheduled unit outages, the components on all of the Unit No. 1 burners would be replaced in 2003, followed by completion of the Unit No. 2 component replacements in 2004.

If you need any additional information or have any questions, please contact me at (904) 751-8729

Sincerely,

*Jay Worley*  
Jay Worley  
Group Leader

cc: Hamilton S. Oven, DEP Siting  
Chris Kirts, DEP NE District  
Jim Manning, RESD

*Scott* 12/27  
*All - All*  
*has original -*  
*Bruce for: latty*  
*Scott 12/28*

Attachment NGS: CT Heat Input Nominal Values

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



## Attachment SJRPP: Material Handling Transfer Points

### SJRPP Material Handling Transfer Points for Permitting

<u>Limestone</u>	<u>Points</u>	<u>Coal-Shiplunloader</u>	<u>Points</u>
1) Limestone receiving bin with 3 Unloading hoppers	1	14) Bucket to Hopper (grab & dump)	2
2) Unloading hoppers to FLD-1 Belt	3	15) Hopper to Belt	1
3) FLD-1 to L0	1	16) Hopper Belt to CT1	1
4) L0 to L1	1	17) CT1 to CT2	1
5) L1 to L2	1	18) CT2 to CT3	1
6) L2 to Storage Pile	1	19) CT3 to CT4	1
7) Reclaim hopper	1	20) Reclaimer to CT4 (grab, dump, dump)	3
8) Hopper to 9LC-02	1	21) CT4 to CT5	1
9) 9LC-02 to Silos(2)	2	CT4 to S1 traveling conveyor	1
10) Silos to 1LC-01, 2LC-01 (to ball mills)	2	S1 Traveling conv. to S2 boom conv.	1
<b>Total</b>	<b>14</b>	S2 boom conv to storage pile	1
		22) CT5 to C2	1
		23) C2 to CT4	1
		<b>Total</b>	<b>16</b>
<u>Coal-Yard</u>		<u>Coal-Petcoke Feeder System</u>	
1) Receiving bin with 4 Unloading hoppers	1	24) Hopper	1
2) 4 Unloading hoppers to FCO-1,2,3,4	4	Hopper to SPC-1	1
3) FCO-1,2,3,4 to CC	4	SPC-1 to FC-1	1
4) CC to C1	1	FC-1 to C4	1
5) C1 to C2	1	<b>Total</b>	<b>4</b>
C1 to emergency stackout	1		
6) C2 to C4	1		
7) C4 to C5	1		
C4 to CT6	1		
8) C5 to C6	1		
9) C6 to storage pile	1		
Reclaim to C6 (grab and dump)	2		
C6 to C4	1		
10) Surge Bins			
C2 to Surge Bin	1		
C3 to Surge Bin	1		
C4 to Surge Bin	1		
Surge Bin to FCR-A,B	2		
11) FCR-A,B to Crushers (2)	2		
Crushers (2)	2		
Crushers to C7,8	2		
12) C7,8 to C9,10	2		
13) C9,10 to 14 Coal Storage Silos	14		
<b>Total</b>	<b>47</b>		
		<u>Fly &amp; Bottom Ash Handling System</u>	
		25) Flyash	
		U#1-A&B Saleable silo Baghouse (2)	
		& roof vents (2)	4
		U#1-1 Non-saleable Silo Baghouse	
		& roof vent	2
		U#1-A loadout Silo discharge (2)	
		& roof vent (1)	3
		U#1-B loadout Silo discharge (2)	
		& roof vent (1)	3
		U#2-A&B Saleable silo Baghouse (2)	
		& roof vents (2)	4
		U#2-A Non-saleable Silo Baghouse	
		& roof vent	2
		U#2-A loadout Silo discharge (2)	
		& roof vent (1)	3
		U#2-B loadout Silo discharge (2)	
		& roof vent (1)	3
		26) Bottom Ash	
		U#1-A&B Silo to conveyor belt	2
		Conveyor belt to truck	1
		U#2-A&B Silo to conveyor belt	2
		Conveyor belt to truck	1
		<b>Total</b>	<b>30</b>
		<b>Grand Total</b>	<b>111</b>