Orlando Utilities Commission 500 South Orange Avenue P.O. Box 3193 Orlando, Florida 32802 Phone: 407.423.9100 Administrative Fax: 407.236.9616

Administrative Fax: 407.236.9610 Purchasing Fax: 407.384.4141

Website: www.ouc.com



BUREAU OF AIR REGULATION

September 12, 2005

Mr. Scott Sheplak
South Permitting Section
DARM/BAR
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Attention: Mr. Sheplak

RE: OUC STANTON ENERGY CENTER, UNIT 1

PLANNED OUTAGE- BURNER REPLACEMENTS

Dear Mr. Sheplak:

This letter serves to transmit additional information with respect to the upcoming outage scheduled for Stanton Unit 1 and the necessity of obtaining a construction permit for certain planned activities. Specifically, the outage is scheduled to begin on October 3, 2005 and the activity of interest is the repair and replacement of worn burners.

Stanton Unit 1 is a nominal 468 MW steam generator with a nominal heat input of 4,286 MMBtu/hr. This unit is fired primarily on bituminous coal. The unit is also equipped to fire No. 6 fuel oil, pipeline quality natural gas, on-spec used oil and landfill gas. Unit 1 is categorized as a dry bottom wall-fired unit consisting of a Babcock and Wilcox boiler/steam generator, Model RB 621. Best Available Control Technology (BACT) has been applied for all pollutants. Particulate emissions are controlled by a dry electrostatic precipitator, SO<sub>2</sub> emissions are controlled by a flue gas desulfurization system, and NOx emissions are minimized by good combustion practices. This unit began commercial operation on May 12, 1987.

The Stanton Energy Center Steam Generators utilize pulverized coal in conjunction with heated air for furnace ignition using the existing burner system. The existing burners have two different air control registers that circulate the air around the pulverized coal in two air zones. The zones are adjusted for flame stabilization and proper flame circulation. By creating a two-zone burner, the combustion has a larger flame volume, resulting in lower flame temperatures and reduced NO<sub>x</sub> formation. Maintaining burners are necessary for proper combustion, low NO<sub>x</sub> emissions, and flame stabilization at low load conditions.

Due to age and location on the Unit 1 steam generator, six burners have experienced heat and erosion damage beyond repair and improper flame characteristics have resulted. The steam generator has thirty burners; the damaged ones are located in the upper portion of the furnace at one level. This particular level is typically not in use, which made the burners more susceptible to radiant heat damage. Cooling air is provided but, due to time, low load operations and the material grade of the burners; warping of the burner air registers and seal area is prevalent.

Mr. Sheplak September 12, 2005 Page 2

A burner replacement is planned for the upcoming outage, which is scheduled to commence on October 3, 2005 and conclude on November 30, 2005. As stated previously, six out of thirty burners in the upper portion of the furnace will be replaced. The new replacement burners are characterized as functionally equivalent or a "like-kind" replacement, with upgraded material and improved mechanical actuator controls. The project cost is estimated at \$204,000.

The first issue is whether the project is exempt in accordance with the Department's definition of a modification under existing rules (Florida Section 62-210, F.A.C.). The project is arguably a physical change and thus is eligible for consideration as a modification. However, it should be considered whether the project is exempt from the definition of modification as provided in Section 62-210.200(169)(a)., F.A.C. This provision states:

A physical change or change in method of operation <u>shall not</u> include: <u>Routine</u> maintenance, repair, or replacement of component parts of an emission unit. (Emphasis added.)

This exemption is dependent on the definition of "routine". Two recent court cases, of some relevance to these planned activities, have resulted in differing interpretations with respect to the meaning of routine. The *Ohio Edison* ruling (August 7, 2003) maintained that the meaning of "routine" was with respect to activities for a particular emission unit. The *Duke Power* ruling (August 26, 2003) was that "routine" was relative to an entire source category (i.e., is the activity routine in the industry). Burner repairs and replacements are typically required during the life of an electric utility steam generating unit (EUSGU) and such repairs and replacements are routine within the industry.

Not with standing whether the proposed activity is routine repair and replacement, a modification can only occur if it would result in an increase in actual emissions for the facility. In making a comparison of whether an increase in actual emissions has occurred, the utilization before and after the change is the most important indicator, especially if the change did not by itself affect the emission rate of the unit. The following paragraphs provide additional information with respect to both short-term impacts (i.e., affect on heat input rate) and long-term impacts (i.e., annual utilization).

Short-term impacts can be assessed in terms of the unit's fuel flow or heat input, expressed as million Btu per hour (MMBtu/hr). This parameter, combined with pollutant emission rates in lb/MMBtu, yields a pollutant mass emission rate of pounds per hour (lb/hr). This analysis is based on the assumption that, as long as the short-term heat input is not affected by the proposed activity, then short-term pollutant emission rates are similarly unaffected. This is because comparison of actual emissions are confounded by several factors, including the availability of continuous emission monitoring data, data reporting procedures, fuel quality and sampling variability. Taken together, comparisons of emissions would have to account for a variety of factors in order to draw conclusions with regard to whether or not emissions have increased as a result of a physical or operational change. The short-term measure of heat input rate (MMBtu/hr) is currently provided as a nominal rating in the Unit 1 permit of 4,286 MMBtu/hr. While Acid Rain monitoring data are not used for compliance with the permitted heat input rating, as it tends to over-estimate heat input, this data provides a good indicator of unit capacity. Historical data was obtained for the most recently available operating quarter (1st Quarter, 2005), plotted and compared to the unit's maximum rated capacity (Permit Application, Attachment 2). It is clear that unit operation has not degraded with respect to maximum

Mr. Sheplak September 12, 2005 Page 3

achievable capacity and that activities planned for the upcoming outage are not for the purpose of restoring or otherwise impacting the short-term heat input rate.

Long-term impacts, or annual utilization, can be measured in several ways. Stanton Unit 1 is characterized as a base load unit, which means that it is designed to be operated at a high capacity factor. Operation is based on system wide electricity demand, which can vary annually due to weather conditions and the availability of other units. This would be evidenced by utilization of the unit for the most recent 5-year period (2000 to 2004). To evaluate whether an increase in utilization is anticipated to occur as a result of the planned outage activity, the highest 2-year average of historical use (2000-2001) is compared to projected future utilization for the 2-year period following the outage. OUC obtains future utilization estimates from the production cost models that are used to project fuel requirements and, for purposes of this assessment, the projected utilization is expected to be equivalent to the highest year out of the last 5 year period.

A comparison of average utilization rates before and after the planned outage shows that no increase is projected to occur. The utilization comparison was made for three parameters that are considered representative of annual operating measurements: 1) heat input in million Btu per year (MMBtu/yr), 2) net generation in MW-hours (net, MW-hrs) and 3) hours of operation per year. These data are summarized below in tabular form.

Year of Operation	Heat Input (MMBtu/yr)	Generation (net, MW-hrs)	Hours Operated
2000	33,000,823	3,189,287	8,025
2001	33,180,949	3,147,090	8,080
2002	31,094,095	2,997,911	7,767
2003	31,842,481	3,098,337	7,986
2004	28,504,372	2,823,306	7,471
Highest 2-yr Avg. 2000-2001	33,090,886	3,168,189	8,053
2005-2006*	33,180,949	3,189,287	8,080

<sup>\*</sup> Equal to the highest single year of the last 5 year period.

As stated, Unit 1 is a base load unit and already highly utilized. Any anticipated increase in future utilization, though currently not predicted, would be due to system-wide demand growth and unrelated to the repair and replacement activities planned for the upcoming outage. The comparisons of short-term (heat input rate) and long-term impacts (annual utilization) both before and after the proposed outage activities provide reasonable assurance that no change in the method of operation or in emission impacts is anticipated to occur as a result of the planned outage activities.

OUC believes, based on the above project summary, that no construction permit is necessary for the planned outage activity. In fact, a meeting was held at the Department's offices on August 18, 2005 among Michael Cooke and Trina Vielhauer of the Department, Louis Brown of OUC and Scott Osbourn of Golder Associates. Specifically, the meeting's purpose was to discuss the routine

Mr. Sheplak September 12, 2005 Page 4

maintenance, repair and replacement (RMRR) activities frequently performed by utilities as part of their ongoing planned outages and the decision making process that the Department uses to guide whether permitting action is required. Mr. Cooke's response was that the Department would form an internal work group to address this issue and provide specific guidance for circumstances such as this. In the meantime, due to current regulatory uncertainty with respect to proper treatment of equipment repair and replacement projects, as well as discussions with the Department, this letter serves to transmit an application for a construction permit for the described activities. The application includes the following three attachments: 1) Attachment 1-summary tables of annual utilization (Table 1) and annual emissions (Table 2), 2) Attachment 2- graphical depiction of hourly heat input and 3) Attachment 3- the scope of work issued for bid for the activities to be performed.

OUC appreciates your consideration of the above and requests your timely processing of the subject permit. If you should have any questions, please do not hesitate to contact either Scott Osbourn at (813) 287-1717 or me at (407) 737-4236.

Sincerely,

Louis M. Brown

Denise M. Stalls
Director, Environmental Division

Attachments

Cc: Scott Osbourn, P.E., Golder Associates Inc. Leonard T. Kozlov, P.E., DEP Central District



# Department of Environmental Protection

# Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

Air Construction Permit - Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

#### Air Operation Permit – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

#### Identification of Facility 1. Facility Owner/Company Name: Orlando Utilities Commission 2. Site Name: Stanton Energy Center 3. Facility Identification Number: 0950137 4. Facility Location. Street Address or Other Locator: 5100 Alafaya Trail City: Orlando County: Orange Zip Code: 32831 6. Existing Title V Permitted Facility? 5. Relocatable Facility? x Yes ☐ Yes x No □ No **Application Contact** 1. Application Contact Name: Denise Stalls 2. Application Contact Mailing Address. Organization/Firm: Orlando Utilities Commission Street Address: P.O. Box 3193 State: FL City: Orlando Zip Code: 32802 3. Application Contact Telephone Numbers... Telephone: (407) 737 - 4236 ext. Fax: (407) 384 – 4020 4. Application Contact Email Address: dstalls@ouc.com Application Processing Information (DEP Use) 1. Date of Receipt of Application: 9-14-05 2. Project Number(s): 0950137-009-AC

DEP Form No. 62-210.900(1) - Form

3. PSD Number (if applicable):4. Siting Number (if applicable):

Effective: 06/16/03



# Department of Environmental Protection

# **Division of Air Resource Management**

## **APPLICATION FOR AIR PERMIT - LONG FORM**

### **Purpose of Application**

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit  X Air construction permit.
Air Operation Permit  Initial Title V air operation permit.  Title V air operation permit revision.
<ul> <li>☐ Title V air operation permit renewal.</li> <li>☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.</li> <li>☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.</li> </ul>
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)  Air construction permit and Title V permit revision, incorporating the proposed project.  Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Effective: 06/16/03

#### Application Comment:

This application serves to transmit additional information with respect to the upcoming outage scheduled for Stanton Unit 1 to repair and replace damaged coal burners in Unit No. 1. The outage is scheduled to commence on October 3, 2005. The unit consists of a nominal 468 MW steam generator with a nominal heat input of 4,286 MMBtu/hr. This unit began commercial operation on May 12, 1987.

The Stanton Energy Center Steam Generators utilize pulverized coal in conjunction with heated air for furnace ignition using the existing burner system. The existing burners have two different air control registers that circulate the air around the pulverized coal in two air zones. The zones are adjusted for flame stabilization and proper flame circulation. By creating a two-zone burner, the combustion has a larger flame volume, resulting in lower flame temperatures and reduced NO<sub>x</sub> formation. Maintaining burners are necessary for proper combustion, low NO<sub>x</sub> emissions, and flame stabilization at low load conditions.

Due to age and location on Unit 1 steam generator, six burners have experienced heat and erosion damage beyond repair and improper flame characteristics have resulted. The steam generator has thirty burners; the damaged ones are located in the upper portion of the furnace at one level. This particular level is typically not in use, which made the burners more susceptible to radiant heat damage. Cooling air is provided but, due to time, low load operations and the material grade of the burners; warping of the burner air registers and seal area is prevalent.

A burner replacement is planned for the upcoming outage. As stated previously, six out of thirty burners in the upper portion of the furnace will be replaced. The new replacement burners are characterized as functionally equivalent or a "like-kind" replacement, with upgraded material and improved mechanical actuator controls. The project cost is estimated at \$204,000.

Unit 1 is a base load unit and already highly utilized. Any anticipated increase in future utilization, though currently not predicted, would be due to system-wide demand growth and unrelated to the burner replacement activities planned for this project. The comparisons of short-term (heat input rate) and long-term impacts (annual utilization) both before and after the proposed burner replacement activities provide reasonable assurance that no change in the method of operation or in emission impacts is anticipated to occur as a result of the planned activities.

Attachment 1 provides a summary of annual utilization over the most recent 5-year period (Table 1), as well as a summary of the most recent 5-year period of annual emissions estimates. Attachment 2 graphically depicts hourly heat input readings (as recorded by the Acid Rain CEMS) for the most recent available quarter (1st quarter, 2005). Attachment 3 provides the vendor quotation for the burner replacement.

DEP Form No. 62-210.900(1) - Instructions Effective: 06/16/03 3

## **Scope of Application**

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
002	Fossil Fuel Steam Generator Unit No. 1	AC	
		_	

# Application Processing Fee Check one: Attached - Amount: X Not Applicable

#### Owner/Authorized Representative Statement

#### Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name: Frederick F. Haddad

VP, Power Resources Business Unit

2. Owner/Authorized Representative Mailing Address...

Organization/Firm: Orlando Utilities Commission

Street Address: P.O. Box 3193

City: Orlando

State: FL

Zip Code: 32802

3. Owner/Authorized Representative Telephone Numbers...

Telephone: (407) 244 - 8732

ext. Fax:

Fax: (407) 275 – 4120

4. Owner/Authorized Representative Email Address: fhaddad@ouc.com

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted exactsions unit.

Signature

Date

9/12/05

### **Application Responsible Official Certification**

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name:
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
	For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
	The designated representative at an Acid Rain source.
3.	Application Responsible Official Mailing Address  Organization/Firm:
	Street Address:
	City: State: Zip Code:
4.	Application Responsible Official Telephone Numbers
"	Telephone: () - ext. Fax: () -
5.	Application Responsible Official Email Address:
6.	Application Responsible Official Certification:
	I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.
	Signature Date

DEP Form No. 62-210.900(1) - Instructions 6

Pr	ofessional Engineer Certification
1.	Professional Engineer Name: Scott Osbourn
	Registration Number: 57557
2.	Professional Engineer Mailing Address
	Organization/Firm: Golder Associates Inc.
	Street Address: 5100 West Lemon St., Suite 114
	City: Tampa State: FL Zip Code: 33609
3.	Professional Engineer Telephone Numbers
	Telephone: (813) 287 - 1717 ext. 211 Fax: (813) 287 - 1716
4.	Professional Engineer Email Address: sosbourn@golder.com
5.	Professional Engineer Statement:
	I, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here $X$ , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here $X$ , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.
	Something all the same and the
	Signature Date
	(seal)
* /	Attach any exception to certification statement.

7

DEP Form No. 62-210.900(1) - Instructions Effective: 06/16/03

#### Attachment 1. Data Summary

This attachment is a supplement to the construction permit application for OUC Stanton Unit 1. Table 1 provides annual utilization data (past and future projected). Table 2 provides a summary of the most recent 5-years of reported annual emissions data.

The utilization comparison (Table 1) was made for three parameters that are considered representative of annual operating measurements: 1) heat input in million Btu per year (MMBtu/yr), 2) net generation in MW-hours (net, MW-hrs) and 3) hours of operation per year. These data are summarized below in tabular form.

Table 1. Annual Utilization Summary

Year of Operation	Heat Input (MMBtu/yr)	Generation (net, MW-hrs)	Hours Operated
2000	33,000,823	3,189,287	8,025
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2003	31,842,481	3,098,337	7,986
2004	28,504,372	2,823,306	7,471
Highest 2-yr Avg. 2000-2001	33,090,886	3,168,189	8,053
2005-2006*	33,180,949	3,189,287	8,080

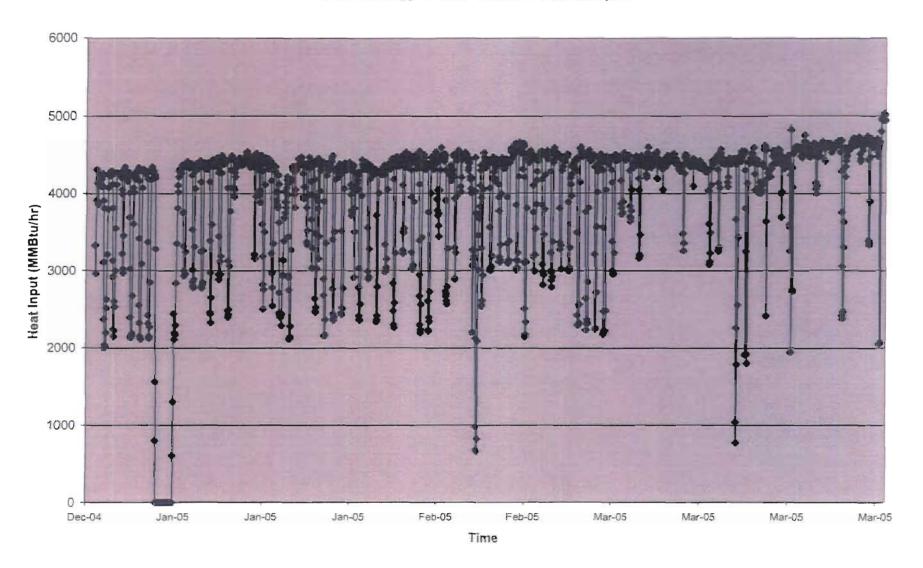
<sup>\*</sup> Equal to the highest single year of the last 5 year period.

A summary of annual reported emissions for all criteria pollutants is presented below in Table 2. The summary was obtained from AOR data as reported for the most recent 5-year period (2000 through 2004).

Table 2. Annual Emissions Summary

Year of	NOx	SO2	СО	PM	PM10	voc
Operation	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)
2000	6,977	6,577	395	593	30.0	44.5
2001	7,529	6,851	388	135	30.0	43.5
2002	6,246	5,355	413	43.2	37.2	44.8
2003	6,155	5,374	413	47.4	30.3	45.0
2004	5,968	4,274	395	39.5	39.5	43.8
Highest 2-yr Ave <b>r</b> age	7,253	6,714	413	364	34.9	44.9

# Stanton Energy Center Unit No. 1 Heat Input





# Orlando Utilities Commission Capital Expenditure Estimate

Date		Originator	J.D. Czarr	niecki			
Capital Job #	C	Originator Work	Order#		W		
Classification Of Ex	cpenditure:						
x Replacement		Project Start Date	е	October 3.20	005		
Expansion ———— existing p	Project Completion	on Date	November 30	0,2005			
Growth (r	new plant or equipment)	Is Commission A	pproval Re		es <u>X</u> No		
Other	Other Fiscal Year Breakdown 2006  Brief Description & Justification						
Maintaining Stanton and flame stabilization burners are damage	Energy Center Unit 1 coal to at low load operation. Do do beyond repair. Replacing on will part of boiler outage	ue to age, location, g six out of thirty but	material gr	ade and low l	oad operation, six		
	ORIGI	NAL COST ESTI	MATE		e de la ego de en en la elegació de la composició de la c		
Labor Hours		Direct		verhead	Total		
Labor Cost (Include L	abor O/H)	\$0.00		\$0.00	\$0.00		
Material Cost (Include	e Material & Truck Stock O/H)	\$0.00		\$0.00	\$203,340		
Other Cost (Include A	dministration O/H)	\$0.00		\$0.00	\$0.00		
Total Original Reque	st			<u> </u>	\$203,340.00		
Description of Char		SED COST ESTIN	<b>MATE</b>				
Labor Hours		Direct	O	verhead	Total		
Labor Cost (Include L	abor O/H)	\$0.00		\$0.00	\$0.00		
Material Cost (Include	Material & Truck Stock O/H)	\$0.00		\$0.00	\$0.00		
Other Cost (Include Ad	dministration O/H)	\$0.00		\$0.00	\$0.00		
Change Request Tot	tal ———			<b>→</b>	\$0.00		
REVISED TOTAL PR	ROJECT AMOUNT —			<del></del>	\$0.00		
	·	APPROVALS					
Approval Description	Originating Director	Vice President	Gener	al Manager	Commission		
Original Estimate							
Date							
Change Estimate							
Date							

**PURCHASE REQUEST** 

					PURC	CHASE REQU	JESI	
Origi	nator Section	l						
Dept/	Div/Śec	HERBAIA	Originator Name	Ext.	Fax Numbe	r		
PRBU		CONT. Proc. Springs SEC STREET	J. D. Czarniecki	3781	407-244-879	4 100 1 4 10 1 4 10 10 10 10 10 10 10 10 10 10 10 10 10	CAN INVESTIGATE TO CONTRACTOR OF THE STATE OF CONTRACTOR OF THE ANALYSIS OF THE STATE OF T	
Work	Order#		Account Number Request Date Date Material Services Needed			ded		
	9/30/05							
Used	For:		Stanton Energy Cen	ter Unit 1 Steam	Generator Bu	rner System		
Know	Know Vendors(s)  B&W Vendor # 105717, Power & Industrial # 120779							
Purcl	nasing Criter	ia:(Low E	Bid, etc.)	Engineering F	valuated Low	Bid, FOB-SEC	C	
						<u> </u>		
Sole S	Company of the Company of the Land of the			•				
Justifi Line #			Dogganinti	a. a. 6 T4		Ilmit Duice	Entended Duice	
	Quantity	Dual Da		on of Item	i	Unit Price	Extended Price \$93,000	
1	3 each		gister Burner Assemb			\$31,000	\$93,000	
<b>-</b>	·	Nozzie	assembly, direct repla	cement of equiv	116111.			
2	3 each	Dual Da	gister Burner Assemb	ly CCW rotation	n without	\$31,000	\$93,000	
	3 cacii		ssembly, direct replace			\$31,000	\$75,000	
		NOZZIĘ a	ssembly, direct replac	cinem of equiva	ient.			
		Ear D & V	W Boiler RB-611, OU	C will re use ev	icting flame			
J			s, Igniters, and nozzle					
				assembly. Thro	at sieeve			
		Casings	Casings are not needed.					
•		Vandons	and a shall assembly drawing sharving datailed material					
	Vendor shall supply drawings showing detailed material Grade used during bid opening. Quoted price shall be							
Good for 60 days.								
3		Good for	oo days.					
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J						G-14:4-1	_	
						Subtotal		
						Freight	#10.C.000	
]	<u>,                                      </u>					Total	\$186,000	

Donora Industrial Park, 95 Washington Street P.O. Box 211, Donora, Pennsylvania 15033

724.379.4477 1.800.676.7116 Fax 724.379.4408 www.piburners.com

## **QUOTATION**

### November 18, 2004

P&I Q04-0993

Customer:

Orlando Utilities Commission

Phone:

407-658-6444

Plant:

Stanton Energy Center

Fax:

407-244-8794

Code:

ORLSTA

Email:

jczarniecki@ouc.com

Attention:

Jim Czarniecki

Subject:

Unit 1 – Replacement DRB Burner

### Power & Industrial Services is pleased to present the following quotation:

Item	Description	Qty	Unit Price
1	Replacement DRB Burner Cell Assembly without Nozzle Assembly –	1	\$ 29,875.00
	<ul> <li>for Unit No. 1:</li> <li>Per drawing 294355 E Rev 5</li> <li>Use of Push / Pull mechanisms for the Spin Vanes instead of the existing gear arrangementto improve reliability of movement</li> <li>Use of 309 SS for Throat Sleeve (2-5665-SA1) as previously suppliedto be part of Burner Cell Assembly</li> <li>Use of 309 SS for Outer Register Front, Rear Plates and Vanes</li> <li>P&amp;I style center linkage for Outer Registerto improve reliability of movement of vanes</li> <li>Use of 309 SS for Inner Air Zone Sleeve and Spin Vanes</li> <li>Includes Observation Port and Outer Register Handle &amp; Quadrant</li> <li>Includes manual drives for the Inner Air Zone Disc and Spin Vanes</li> <li>Slip Seal Packing to ship loose for field installation</li> <li>Customer to reuse existing Flame Scanners and Igniters</li> <li>Customer to specify CW or CCW arranement when ordering</li> </ul>		each
2	<ul> <li>Nozzle Assembly- P&amp;I P/N 2-5757-A</li> <li>17.25" ID x 116" OAL</li> <li>36" Long PI2000 Heat and Abrasion Resistant Tip</li> <li>Mounting holes for Coal Deflector</li> <li>Seal Ring tac welded in place for shipping</li> <li>36" Long area at Nozzle inlet to have Thermal Spray coating</li> <li>Does not include Coal Deflector or Conical Diffuser</li> <li>Same as previously supplied</li> </ul>	1	\$ 2,185.00 each

3	Throat Sleeve Casing Assembly- P&I P/N 2-5665-SA2	1	\$ 895.00
	• Use of 309 SS		each
	Same as previously supplied		

#### Notes:

Due to the unstable price of nickel alloy, extended firm pricing of high grade nickel based heat resistant alloys can no longer be offered. Until prices become more stable we recommend that your purchase be made within 15 days of our quotation date.

Please call if you have any questions or need additional information. Thank you for your interest in Power & Industrial Services.

Delivery:

10 to 12 Weeks ARO

FOB:

SPFC – Shipping Point Freight Collect

Terms:

Net 30 Days

Sincerely Yours.

Rick Vano

RV/mlr

#### Sheplak, Scott

From:

Brown, Louis [LBrown@ouc.com]

Sent:

Tuesday, July 18, 2006 11:16 AM

To:

Koerner, Jeff

Cc:

sosbourn@golder.com; Baez, David; Stalls, Denise; Sheplak, Scott

Subject:

FW: DEP Report for Unit 1

Attachments: Unit 1 Report.doc; Unit 1 Emission Data.xls; Unit 1 HI & MW Data.xls; Unit 1 Boiler Side View.jpg

Mr. Koerner,

Please see the attached, follow-up response, to Specific Condition 5 of DEP Permit No. 0950137-009-AC.

This permit was issued on 2/10/06, to OUC's Stanton Energy Center, for it's Unit 1 Burner Replacement Project.

The required data was previously submitted to the Department on May 16, 2006, with the understanding that a comprehensive report re-transmitting the data, would follow.

The hard copy, signed, cover letter was mailed to your attention last week, and electronic copies of the letter and supporting documentation, are attached below.

Please let me know if you have any questions, and thank you for your assistance with this project.

Louis Brown

Environmental Engineer Orlando Utilities Commission (407) 658-6444 Ext. 3435

----Original Message----

**From:** Osbourn, Scott [mailto:Scott\_Osbourn@golder.com]

**Sent:** Monday, June 26, 2006 5:37 PM

To: Brown, Louis

**Cc:** Baez, David; Stalls, Denise **Subject:** DEP Report for Unit 1

Attached is the DEP report, required to be submitted for the Unit 1 burner replacement project. The attached letter should be printed out on OUC letterhead and signed. The 1st XL file contains Figures 1 and 2, the 2nd contains Figures 3 and 4, and the jpg file is also to be attached. Please don't hesitate to call me if you should have any questions.

Scott Osbourn, P.E. Golder Associates Inc 5100 West Lemon St., Suite 114 Tampa. FL 33609

Tel: (813) 287-1717 Fax: (813) 287-1716

E-mail: sosbourn@golder.com

#### ATTORNEY/CLIENT COMMUNICATION OR WORK PRODUCT

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Orlando Utilities Commission 500 South Orange Avenue P.O. Box 3193 Orlando, Florida 32802

Phone: 407.423.9100

Administrative Fax: 407.236.9616 Purchasing Fax: 407.384.4141

Website: www.ouc.com June 26, 2006



BUREAU OF AIR REGULATION

Mr. Jeff Koerner DEP/DARM North Permitting Section Division of Air Resource Management 2600 Blair Stone Road MS 5500 Tallahassee, Florida 32399-2400

Re:

OUC Stanton Energy Center DEP Permit No. 0950137-009-AC Unit 1 Burner Replacement Project

danaa.

Dear Mr. Koerner:

This letter serves to provide the data and reporting required by the above-referenced permit, Specific Condition 5, as follows:

#### 5. Emissions Monitoring:

- a. Completion of this project occurs when all burners have been installed and are operational. After completion of this project, the permittee shall monitor  $NO_{X_1}$  opacity, and  $SO_2$  emissions consistent with the averaging times specified in Permit No. 0950137-006-AV. The monitoring period shall be conducted with the 6 new burners in operation. The permittee shall submit a report comparing the emissions data during this period to the specific emission limits in Permit No. 0950137-006-AV, within 60 days of completion of this project. The permittee shall provide a statement as to whether or not the unit is in compliance with the specific emission limits in Permit No. 0950137-006-AV. [Rule 62-4.070(3), F.A.C.]
- b. The actual operating rates of Unit No. 1 during this monitoring period, specifically, heat input {MMBtu/hr}, electrical output {MW}, type(s) of fuel(s) fired shall be provided in the report. The number of burners in operation, identification and their respective locations shall also be included in the report. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

The above-referenced project was completed on March 20, 2006 and notification of completion was provided to the Department via e-mail on March 27, 2006. Therefore, per Condition 5 above, the study period began on March 20th and concluded on April 20th. Test results are due within 60 days of commencement of the study period, or by May 20, 2006. These results were forwarded via e-mail on May 16, 2006 with a hard copy follow up shortly after (i.e., this report).

Specifically, permitted limits for Unit No. 1 are as follows:

- SO<sub>2</sub> 1.2 lb/MMBtu (30 day rolling average) and 1.2 lb/MMBtu/hr (2 hour emission rate);
- Opacity 20 percent opacity (6-minute average), except for one 6-minute period per hour not to exceed 27 percent opacity; and

• NOx - 0.60 lb/MMBtu heat input (30-day rolling average), and 0.46 lb/MMBtu heat input on an annual average.

A comparison of the CEM data for the study period to the permit limits indicates that the unit is in compliance with the specific emission limits in Permit No. 0950137-006-AV. A plot of SO<sub>2</sub> emissions (Figure 1), based conservatively on 2-hour averages, shows that the monitored values are consistently less than one-half to one-third of the allowable standard. A plot of the opacity data (Figure 2) shows a similar trend. A plot of the NOx data is not provided, as the averaging period was 30 days and there were 30 days of data, resulting in one data point. However, the 30-day average of 0.36 lb/MMBtu was less than the 0.60 lb/MMBtu limit, based on a 30-day rolling average.

Graphical depictions of the hourly average heat input and MW values are also provided for the study period. Heat input values are within current permit limits and both the heat input and MW data are consistent with historical values (Figures 3 and 4, respectively). The unit continues to fire bituminous coal.

Finally, all six of the recently replaced burners were in service during the study period. The new burners are located on pulverizer 4 in the third row of burners. Their identification numbers are 4307, 4308, 4309, 4310, 4311 and 4312 (see attached Unit 1 Boiler Figure).

If you should have any questions with respect to this letter and attachments, please don't hesitate to contact me at (407) 658-6444 or Scott Osbourn at (813) 287-1717.

Sincerely,

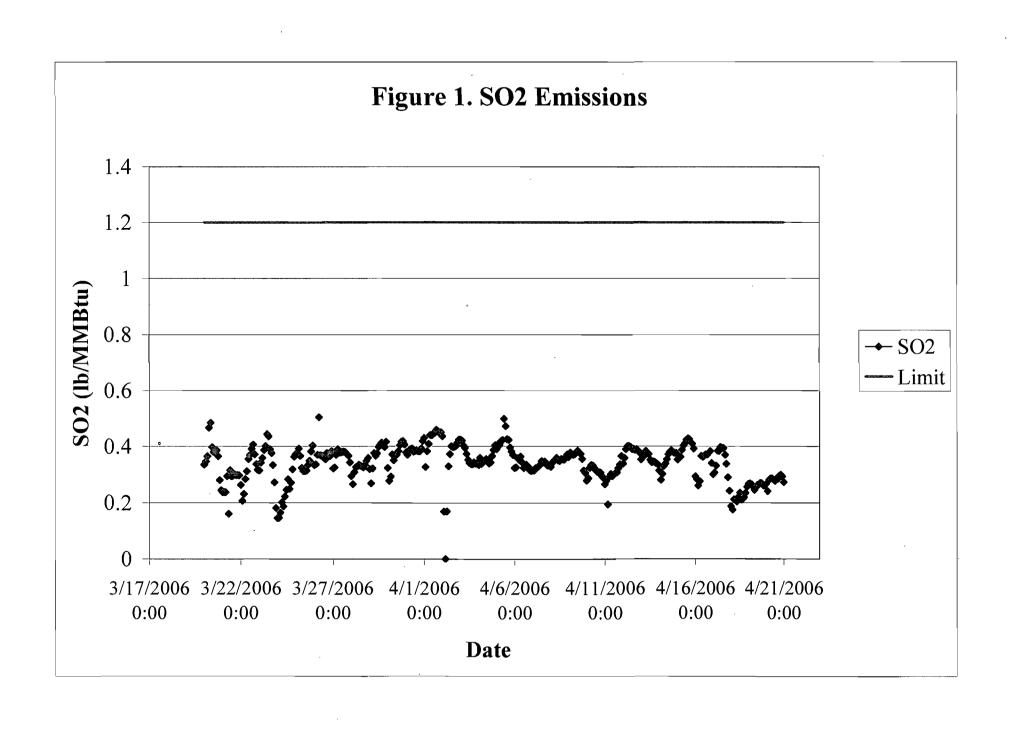
Louis M. Brown

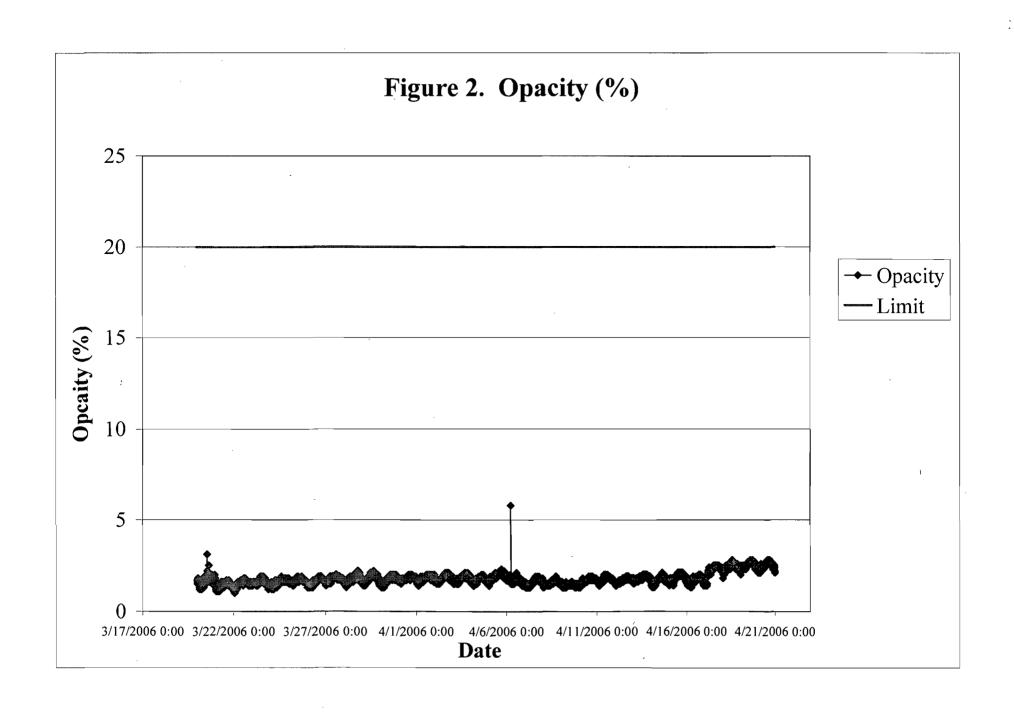
Louis Brown Senior Environmental Engineer

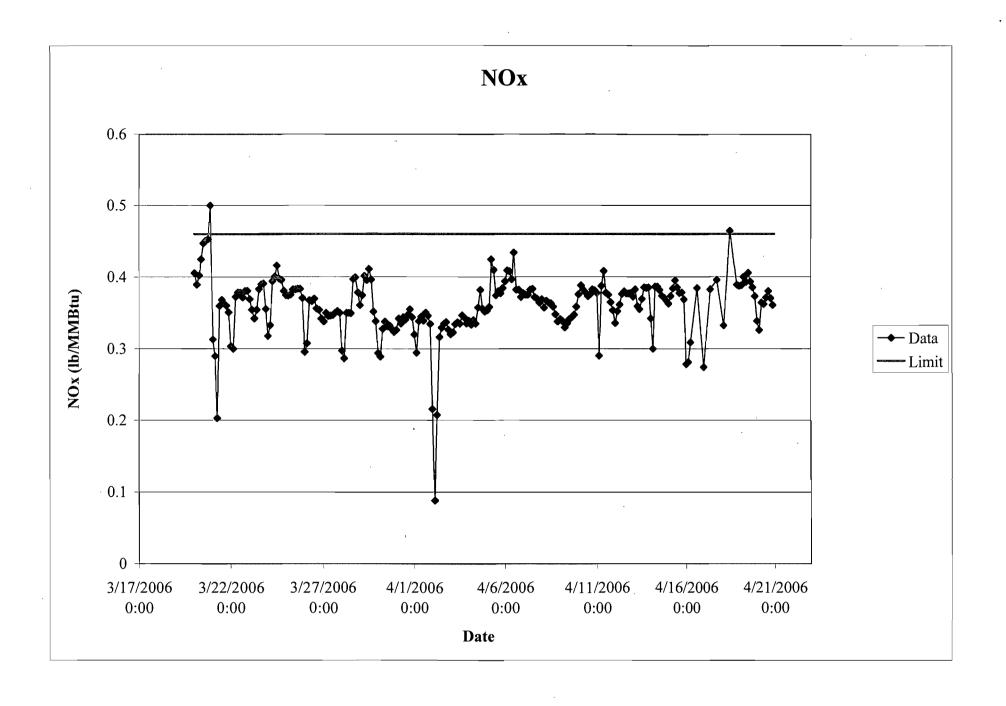
cc: Scott Osbourn, P.E., Golder Associates Inc.

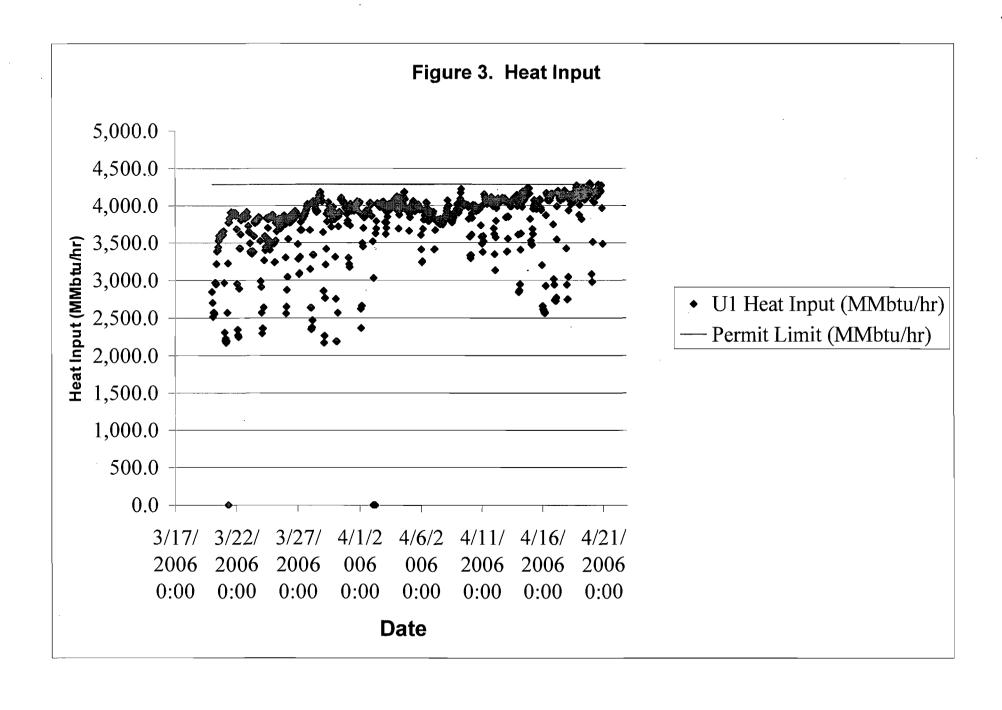
xc: Combo District

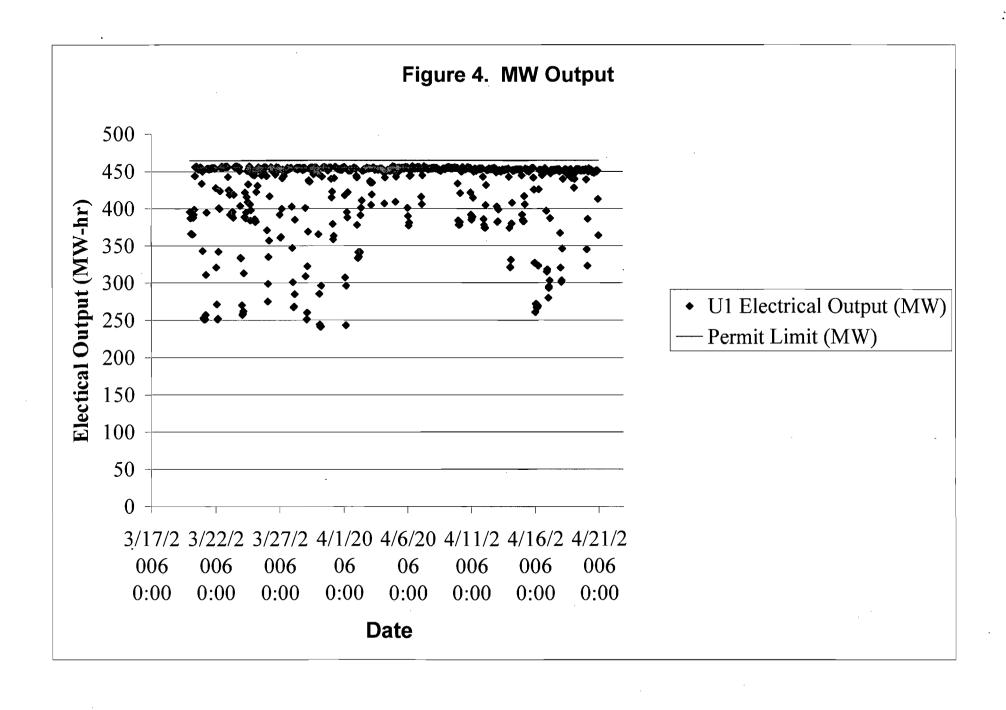
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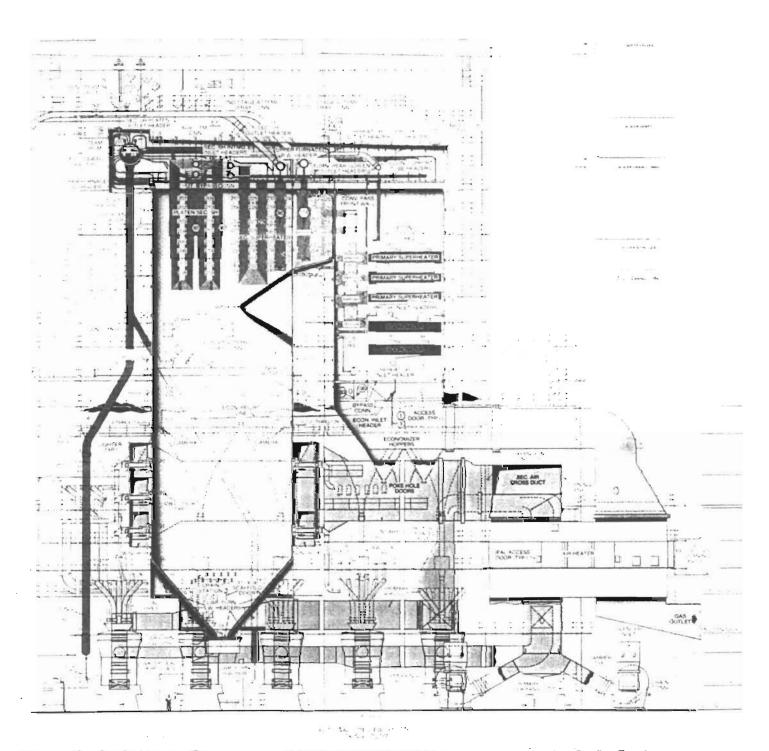








#### **BEST AVAILABLE COPY**

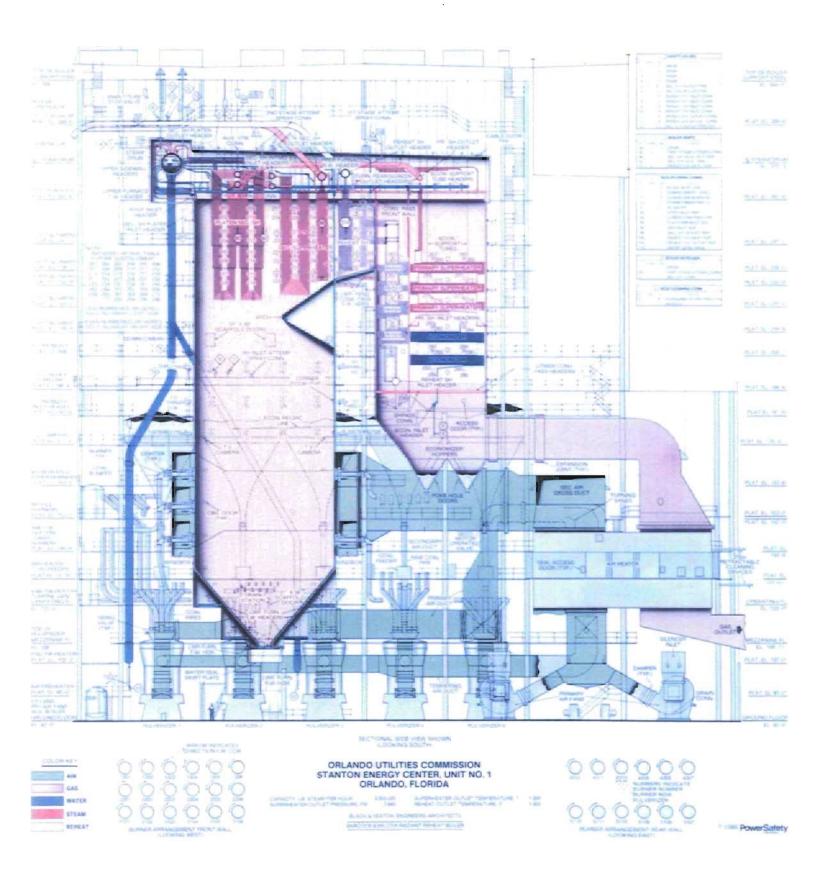


ORLANDO UTILITIES COMINISSION STANTON EINERGY CENTER, JUNITINO: 1 ORLANDO, FLORIDA

GAS WASER

**PowerSufety** 

#### **BEST AVAILABLE COPY**



# Florida Department of Environmental Protection

TO:

Michael G. Cooke, Director DARM

THRU:

Trina L. Vielhauer, Chief

THRU:

A. A. Linero, P.E.

FROM:

Scott M. Sheplak, P.E.

DATE:

February 8, 2006

SUBJECT:

Orlando Utilities Commission

Curtis H. Stanton Energy Center Unit # 1 Burner Replacement Project Final Permit No. 0950137-009-AC

Attached for approval and signature is a final air construction permit authorizing the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace at the Curtis H. Stanton Energy Center.

A significant net emissions increase is not expected from the proposed activity. The Department required an air construction permit from the owner or operator to proceed with the proposed activity.

The proposed activity is to take place during the next scheduled outage, commencing approximately February 25, 2006, with a project completion date of March 26. An expiration date of July 31, 2006, for this air construction permit should allow sufficient time to complete the required monitoring and to submit the report.

We recommend your approval and signature.

Attachments

AAL/sms

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF PERMIT

In the Matter of an Application for Permit by:

Mr. Frederick F. Haddad, Jr.
Vice President, Power Resources Business Unit
Orlando Utilities Commission
500 South Orange Avenue
Orlando, Florida 32802

DEP Permit No.: 0950137-009-AC OUC Curtis H. Stanton Energy Center Unit 1 Burner Replacement Project Orange County

Enclosed is the Final Permit Number 0950137-009-AC for the replacement of burners in Unit 1 at the OUC Curtis H. Stanton Energy Center. The site is located at 5100 Alafaya Trail, Orlando, Orange County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation DEP Permit No.: 0950137-009-AC

Notice of Permit Page 2 of 2

#### CERTIFICATE OF SERVICE

Frederick F. Haddad, Jr., OUC\*
Denise Stalls, OUC, via e-mail dstalls@ouc.com
Scott Osbourn, P.E., Golder Associates, via e-mail sosbourn@golder.com
Kay Prince, EPA, via e-mail
Beverly Spagg, EPA, via e-mail
Len Kozlov, P.E., DEP CD, via e-mail
Marie Driscoll, Orange County EPD, via e-mail

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.

(Date

#### Final Determination

Orlando Utilities Commission Curtis H. Stanton Energy Center

February 8, 2006

Permit Type(s):

Air Construction Permit

Permit No.:

0950137-009-AC

Project:

Unit # 1 Burner Replacement

#### I. Public Notice.

An "Intent to Issue Air Construction Permit" to the Orlando Utilities Commission to authorize the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace at the Curtis H. Stanton Energy Center was clerked on September 23, 2005. This site is located at 5100 Alafaya Trail, Orlando, Orange County.

The clerked package included the Department's Draft Air Construction Permit, the "<u>Intent to Issue Air Construction Permit</u>," the "<u>Technical Evaluation and Preliminary Determination</u>," and the "<u>Public Notice of Intent to Issue Air Construction Permit</u>." The Department sent copies of the package to the persons listed.

The "Public Notice of Intent to Issue Air Construction Permit" was published in the Orlando Sentinel on October 8, 2005. The Draft air construction permit was available for public inspection at the Orange County Office, the Department's Central District Office and the permitting authority's office in Tallahassee. Proof of publication of the "Public Notice of Intent to Issue Air Construction Permit" was received on February 7, 2006. The 30-day public comment period ended on November 7, 2005.

#### II. Comment(s).

Comments were received from one respondent. The Draft permit was changed in response to comments submitted. Responses to the comments were not considered significant enough to reissue the Draft permit and require another Public Notice. Listed below is a response to each comment in the order that each comment was received. The comments are not restated below {please see the original comment letter}. The responses are numbered and contain sufficient context for cross referencing to the original comments.

- A. E-mail dated October 3, 2005, from Scott Osbourn, Golder Associates Inc.
  - 1. The outage date for the proposed activity has been changed. The expiration date of the permit was changed.
  - 2. The facility description in the permit has been changed.

#### III. Department Changes.

The following additional Department initiated changes were made.

#### **Permit**

- 1. Added the effective date of the permit on the signatory page.
- 2. Moved the expiration date.

#### B. Document(s) on file with the permitting authority:

- E-mail dated October 3, 2005, from Scott Osbourn, Golder Associates Inc. (attached).

#### IV. Conclusion.

In conclusion, the changes that have been made are insignificant in nature and do not impose additional public noticing requirements. The permitting authority hereby issues the Final Permit, with any changes noted above.

#### **FINAL**

#### **PERMITTEE**

Orlando Utilities Commission 500 South Orange Avenue Post Office Box 3193 Orlando, Florida 32802 **Permit No.:** 0950137-009-AC

Facility ID No.: 0950137

**SIC No.:** 4911

Project: Unit # 1 Burner Replacement

#### PROJECT AND LOCATION

This permit authorizes the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace at the Curtis H. Stanton Energy Center.

The facility is located at 5100 Alafaya Trail, Orlando, Orange County. The map coordinates are: UTM Zone 17, 484.00 km East and 3150.50 km North; and Latitude: 28° 28' 50" North and Longitude: 81° 09' 40" West.

#### 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 work specified 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.

#### **APPENDICES**

The following appendices are attached as part of this permit:

Appendix GC - Construction Permit General Conditions

Expiration Date: July 31, 2006

**Effective Date:** 

Michael G. Cooke, Director

Division of Air Resource Management

hulal J. Cooke

MGC/AAL/sms

#### **FACILITY DESCRIPTION**

This facility consists of two coal-fired boilers (Acid Rain Phase II Units) and two gas-fired combustion turbines serving a single steam-electrical generator (Acid Rain Phase II Units).

There are storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash.

Unit Nos. 1 and 2 each consist of one Babcock and Wilcox boiler/steam generator (Model RB 611) and steam turbine, which drives a generator with a nameplate rating of 468 Megawatts. Each boiler/steam generator is a coal-fueled, wall fired, dry bottom unit that uses No. 6 fuel oil used for startup and flame stabilization. Each unit has a stack. Each unit is equipped with an electrostatic precipitator for control of particulate matter (PM/PM<sub>10</sub>) and a limestone scrubber for sulfur dioxide (SO<sub>2</sub>) control. Additionally, Unit 2 is equipped with a selective catalytic reduction (SCR) system for nitrogen oxides (NO<sub>X</sub>) control. Units 1 and 2 began commercial operation in 1987 and 1996, respectively.

The 640 MW combined cycle unit is comprised of two 170 MW, General Electric 7FA combustion turbine-electrical generators, fired with pipeline natural gas or diesel and equipped with evaporative coolers on the inlet air system, two supplementary fired heat recovery steam generators, each with a 160 ft. stack, and one steam turbine-electrical generator rated at approximately 300 MW. The winter capacity of this unit is approximately 700 MW. The combustion turbines are equipped with Dry Low NO<sub>X</sub> combustors as well as an SCR in order to control NO<sub>X</sub>. SO<sub>2</sub> and PM/PM<sub>10</sub> are controlled by use of inherently clean natural gas and low sulfur fuel oil.

#### **PROJECT**

The proposed project affects the following existing emissions unit:

E.U. ID No.	Brief Description
-001	Fossil Fuel Fired Steam Generator # 1

#### REGULATORY CLASSIFICATION

<u>Title III</u>: Based on the initial Title V permit, the facility is a major source of hazardous air pollutants.

<u>Title IV</u>: The facility operates emissions units that are subject to the Phase II, Federal Acid Rain Program.

<u>Title V</u>: The facility is classified as a "major" source of air pollution with respect to Title V of the Clean Air Act because emissions of at least one regulated criteria air pollutant exceeds 100 tons per year.

<u>PSD</u>: The project is located in an area designated as "attainment" or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. The facility is considered a "fossil fuel fired steam electric plant of more than 250 million BTU per hour of heat input", which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a PSD-major source of air pollution with respect to Rule 62-212.400, F.A.C., the Prevention of Significant Deterioration (PSD) of Air Quality. The three units were built pursuant to PSD permits and determinations of best available control technology (BACT).

#### SECTION I. FACILITY INFORMATION (FINAL)

NSPS: Units 1 and 2 are subject to Subpart Da and the combined cycle unit is subject to Subparts GG and Db of the New Source Performance Standards in 40 CFR 60.

#### RELEVANT DOCUMENTS

- Application received on September 14, 2005, for Unit 1 burner replacement project;
- Permits PSD-FL-084 and PSD-FL-084A issued by EPA for the construction of Unit Nos. 1 and 2;
- Current Title V Air Operation Permit Renewal No.: 0950137-006-AV; and
- Department's Technical Evaluation and Preliminary Determination dated September 22, 2005.
- Department's Final Determination dated February 8, 2006.

#### SECTION II. ADMINISTRATIVE REQUIREMENTS

#### GENERAL'AND ADMINISTRATIVE REQUIREMENTS

- Permitting Authority: All documents related to applications for permits to construct, modify or
  operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida
  Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida
  32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the
  Compliance Authority.
- 2. <u>Compliance Authority</u>: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando Florida 32803-3767. The phone number is 407/894-7555 and the fax number is 407/897-2966.
- 3. <u>General Conditions</u>: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 5. <u>Permit Expiration</u>: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
- 6. 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.]
- 7. <u>Modifications</u>: No emissions unit or facility subject to this permit shall be constructed or 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.]
- 8. <u>Title V Permit</u>: This permit authorizes construction of the proposed project and initial operation to determine compliance with Department rules. This project involves no changes in the descriptions, applicable requirements, or conditions of the facility Title V Operation Permit. The permittee is not required to apply for a revised Title V operation permit following completion of the project.

The proposed project affects the following existing unit:

E.U. ID No.	Brief Description
-001	Fossil Fuel Fired Steam Generator # 1

Fossil fuel fired steam generator # 1 is a nominal 468 megawatt steam generator designated as Unit # 1. The emission unit is fired primarily on bituminous coal and secondarily on No. 6 fuel oil for startup and flame stabilization, as permitted herein, with a maximum heat input of 4286 MMBtu/hour.

Boiler/steam generator, Unit # 1 is regulated under the federal Acid Rain Program, Phase II, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Emission Units 1 is subject to compliance assurance monitoring (CAM) for particulate matter (PM) emissions controlled by an ESP. Because the continuous opacity monitoring system (COMS) is required to be used at the facility (for Phase II Acid Rain Program purposes), it must also be used as part of the CAM plan. A CAM plan is included for the ESP

The following parameters are continuously monitored for this unit:  $NO_X$ , opacity,  $SO_2$ ,  $CO_2$ , and stack gas flow.

{Permitting note(s): This emissions unit is regulated under Acid Rain, Phase II; NSPS-40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7)(b)2, F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT), and Compliance Assurance Monitoring (CAM). Fossil fuel fired steam generator # 1 began commercial operation on May 12, 1987.}

#### **ADMINISTRATIVE REQUIREMENTS**

1. <u>Previous Permit Conditions</u>: This permit authorizes the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace. The following conditions are in addition to those of any other air construction or operation permits. [Rule 62-4.210, F.A.C.]

#### **CONSTRUCTION ACTIVITIES**

- 2. <u>Burner Replacement</u>: This permit authorizes the replacement of 6 of the 30 burners in the upper portion of the Unit # 1 boiler furnace. The permittee shall replace the burners with burners that are "functionally equivalent or like-kind." [Applicant Request dated September 12, 2005]
- 3. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate emissions shall be minimized by dust suppressing techniques such as covering, enclosing, applying water or chemicals to the affected areas, or any combination of techniques, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### NOTIFICATIONS AND REPORTS

4. <u>Notifications</u>: Within one week of beginning construction, the permittee shall notify the Compliance Authority that the project has commenced and provide a general schedule of construction activities. Within one week of completing construction, the permittee shall notify the Compliance Authority that the project has concluded and provide a general schedule of bringing the unit back on line. [Rule 62-4.210, F.A.C.]

#### 5. Emissions Monitoring:

- a. Completion of this project occurs when all burners have been installed and are operational. After completion of this project, the permittee shall monitor  $NO_X$ , opacity, and  $SO_2$  emissions consistent with the averaging times specified in Permit No. 0950137-006-AV. The monitoring period shall be conducted with the 6 new burners in operation. The permittee shall submit a report comparing the emissions data during this period to the specific emission limits in Permit No. 0950137-006-AV, within 60 days of completion of this project. The permittee shall provide a statement as to whether or not the unit is in compliance with the specific emission limits in Permit No. 0950137-006-AV. [Rule 62-4.070(3), F.A.C.]
- b. The actual operating rates of Unit # 1 during this monitoring period, specifically, heat input {MMBTU/hr}, electrical output {MW}, type(s) of fuel(s) fired shall be provided in the report. The number of burners in operation, identification and their respective locations shall also be included in the report. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]
- 6. <u>PSD Applicability Report</u>: The permittee shall maintain information demonstrating that the project did not result in any significant net emissions increase, which is defined in Rule 62-212.400(2)(e), F.A.C. as follows:

**Net Emissions Increase.** A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero.

**Significant Net Emissions Increase.** A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates.

The permittee shall submit an annual report to the Department's Bureau of Air Regulation of such information for a period of 5 years representative of normal post-change operations of the unit (within the period not longer than 10 years following the change). For an existing electric utility steam-generating unit, actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change. The following definition of "representative actual annual emissions" found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.:

Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal

source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:

- (i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and
- (ii) Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole."

Each required annual report shall be submitted to the Department's Bureau of Air Regulation prior to **August 1**<sup>st</sup> and shall quantify operations for the previous calendar year(s).

[Rules 62-204.800, 62-210.200(11) and 62-212.400(2), F.A.C.; and 40 CFR 52.21(b)(33)]

#### SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

#### Appendix GC - Construction Permit General Conditions

- G.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, Florida Statutes. 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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any 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.
- G.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.
- G.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 Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.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.
- G.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.

- G.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.

# SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

# Appendix GC - Construction Permit General Conditions

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.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 Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 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.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
  - (a) Determination of Best Available Control Technology (not applicable to this project);
  - (b) Determination of Prevention of Significant Deterioration (not applicable to this project); and
  - (c) Compliance with New Source Performance Standards (not applicable to this project).
- G.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.
- G.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.

Agent Addressee te of Delivery 1 2000 Yes
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7000 1670	Mr. Frederick F. Haddad, Jr.  Vice President, Power Resources Business Unit  Orlando Utilities Commission  500 South Orange Avenue Orlando, Florida 32802		

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Published Daily

State of Florida } s.s.

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# Transmission sheet

DATE: 2. 1.06 TRANSMIT TO: NAME SCOTT SHEPLAK COMPANY FORP - TALLAHASSEE #OF PAGES TRANSMITTED, INCL. COVER SHEET & FAX NUMBER RECEIVING: (850 ) 921 - 9533 FROM: WOULL SHOWN AT THE STANTON ENERGY CENTER

STANTON ENERGY CENTER PHONE: 407 658-6444 STANTON ENERGY CENTER FAX: 407 244-8794

In the event transmission is not complete, please call me.

Acoll, Attached is a copy of the public notice for the burner replacement project. Please let me troow if you need any additional information Thank you.



# Department of Environmental Protection

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

Colleen M. Castille Secretary

September 22, 2005

# CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Frederick F. Haddad, Jr.
Vice President, Power Resources Business Unit
Orlando Utilities Commission
500 South Orange Avenue
Post Office Box 3193
Orlando, Florida 32802

Re: DEP File No.: 0950137-009-AC Curtis H. Stanton Energy Center Unit 1 Burner Replacement Project

Dear Mr. Haddad:

Enclosed is one copy of the Draft Permit and the Technical Evaluation and Preliminary Determination for the burner replacement project for Unit 1 at the OUC Curtis H. Stanton Energy Center in Orange County. The Department's Intent to Issue Air Construction Permit and the "Public Notice of Intent to Issue Air Construction Permit" are also included.

The Public Notice must be published one time only as soon as possible in a newspaper of general circulation in the area affected, pursuant to Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) 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.

Please submit any other written comments you wish to have considered concerning the Department's proposed action to me at the above letterhead address. If you have any questions please call Scott M. Sheplak, P.E. at 850/921-9532.

Sincerely,

Trina L. Vielhauer, Chief Bureau of Air Regulation

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TLV/sms

**Enclosures** 

In the Matter of an Application for Permit by:

Mr. Frederick F. Haddad, Jr. Vice President, Power Resources Business Unit Orlando Utilities Commission 500 South Orange Avenue Orlando, Florida 32802 DEP File No.: 0950137-009-AC OUC Curtis H. Stanton Energy Center Unit 1 Burner Replacement Project Orange County

#### INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit to Orlando Utilities Commission (OUC) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

OUC submitted an application on September 14, 2005, to the Department for the replacement of burners in Unit 1 at the OUC Curtis H. Stanton Energy Center in Orange County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. Although no <u>significant</u> net emissions increases are projected to result from the proposed project, the Department has determined that an Air Construction Permit is required.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that project will not cause significant net emissions increases from the unit that would otherwise require a review under the rules for the Prevention of Significant Deterioration under Chapters 62-212.400, 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 the enclosed <u>Public Notice</u>. 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 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.

DEP File No.: 0950137-009-AC

Page 2 of 3

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.

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, 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 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.

DEP File No.: 0950137-009-AC

Page 3 of 3

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 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.

Trina L. Vielhauer, Chief Bureau of Air Regulation

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#### CERTIFICATE OF SERVICE

Frederick F. Haddad, Jr., OUC\* Denise Stalls, OUC Kay Prince, EPA Beverly Spagg, EPA Scott Osbourn, P.E., Golder Associates Len Kozlov, P.E., DEP CD Marie Driscoll, Orange County EPD

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.

Jate)

#### PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No.: 0950137-009-AC

Orlando Utilities Commission, Curtis H. Stanton Energy Center Unit 1
Burner Replacement Project

**Orange County** 

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit to Orlando Utilities Commission (OUC). The permit will authorize replacement of burners in Unit 1 at the OUC Curtis H. Stanton Energy Center in Orange County. A Best Available Control Technology (BACT) determination was not required. The applicant's name and address are Orlando Utilities Commission, 500 South Orange Avenue, Post Office Box 3193, Orlando, Florida 32802.

Fossil fuel fired steam generator Unit 1 is a nominal 468 megawatt steam generator that began commercial operation in 1987. The unit is equipped with an electrostatic precipitator for control of particulate matter (PM/PM<sub>10</sub>) and a limestone scrubber for sulfur dioxide (SO<sub>2</sub>) control. The applicant proposes to replace 6 of the 30 burners in the upper portion of the Unit 1 boiler furnace. The applicant claims that due to the age, location, material grade and low load operation of the burners, the 6 burners have experienced heat and erosion damage beyond repair. The proposed activity is to take place during the next scheduled outage, commencing October 3, with a project completion date of November 30, 2005.

The Department has reasonable assurance that the project will not result in significant net emission increases from the unit that would otherwise require a review under the Rules for the Prevention of Significant Deterioration (PSD) at Paragraph 62-212.400, F.A.C. or 40 CFR 52.21. The Department has incorporated provisions in the draft permit requiring submittal of information on an annual basis for a period of 5 years to confirm that the project did not cause significant net emission increases in actual emissions.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit, 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 this Public Notice of Intent to Issue Air Construction 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 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. 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, 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 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-0114 Fax: 850/922-6979

Dept. of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555 Fax: 407/897-5963 Orange County Environmental Protection Dept. - Air Program 800 Mercy Drive, Suite 4 Orlando, Florida 32808 Telephone: 407/836-1400 Fax: 407/836-1499

The complete project file includes the technical evaluation and the Draft Permit, and the information submitted by OUC, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., South Permitting Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9532, for additional information. The draft permit and technical evaluation can be accessed at <a href="https://www.dep.state.fl.us/Air/permitting/construction.htm">www.dep.state.fl.us/Air/permitting/construction.htm</a>



# Department of Environmental Protection

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

Colleen M. Castille Secretary

# P.E. Certification Statement

Permittee:

**Permit No.:** 0950137-009-AC

Orlando Utilities Commission Curtis H. Stanton Energy Center

**Project type:** Air Construction Permit

Unit 1 Burner Replacement Project

I HEREBY CERTIFY that the 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 aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural hydrological, and geological features).

Scott M. Sheplak, P.E.

09/22/05 Date

Registration Number: 48866

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301

Telephone: 850/921-9532

Fax: 850/921-9533

# TECHNICAL EVALUATION

# AND

# PRELIMINARY DETERMINATION

# **APPLICANT**

Orlando Utilities Commission Curtis H. Stanton Energy Center

Orange County

# **PROJECT**

DEP File No.: 0950137-009-AC Unit 1 Burner Replacement Project

# PERMITTING AUTHORITY

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



September 22, 2005

#### 1. GENERAL PROJECT INFORMATION

# **Application Processing Schedule**

• September 14, 2005 Application received for Unit 1 burner replacement project.

• September 14, 2005 Complete Application.

#### **Relevant Documents**

- Permits PSD-FL-084 and PSD-FL-084A issued by EPA for the construction of Units 1 and 2;
- Current Title V Air Operation Permit Renewal No.: 0950137-006-AV; and
- Department's Technical Evaluation and Preliminary Determination dated [Month day, 2005].

#### 2. FACILITY DESCRIPTION AND LOCATION

The Curtis H. Stanton Energy Center is located at 5100 Alafaya Trail, Orlando, Orange County. The map coordinates are: UTM Zone 17, 484.00 km East and 3150.50 km North; and Latitude: 28° 28' 50" North and Longitude: 81° 09' 40" West.

This facility consists of two coal-fired boilers (Acid Rain Phase II Units), two oil-fired combustion turbines used to drive two separate peaking generators driven by a single jet engine, and two gas-fired combustion turbines serving a single steam-electrical generator (Acid Rain Phase II Units).

There are storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash.

Units Nos. 1 and 2 each consist of one Babcock and Wilcox boiler/steam generator (Model RB 611) and steam turbine, which drives a generator with a nameplate rating of 468 Megawatts. Each boiler/steam generator is a coal-fueled, wall fired, dry bottom unit that uses No. 6 fuel oil used for startup and flame stabilization. Each unit has a stack. Each unit is equipped with an electrostatic precipitator for control of particulate matter (PM/PM<sub>10</sub>) and a limestone scrubber for sulfur dioxide (SO<sub>2</sub>) control. Additionally, Unit 2 is equipped with a selective catalytic reduction (SCR) system for nitrogen oxides (NO<sub>X</sub>) control. Units 1 and 2 began commercial operation in 1987 and 1996, respectively.

#### 3. PROPOSED PROJECT

The proposed project affects the following existing emissions unit:

E.U. ID No.	Brief Description	Choice communication
-001	Fossil Fuel Fired Steam Generator # 1	1

Fossil fuel fired steam generator # 1 is a nominal 468 megawatt steam generator designated as Unit # 1. The emission unit is fired primarily on bituminous coal and secondarily on No. 6 fuel oil for startup and flame stabilization, as permitted herein, with a maximum heat input of 4,286 MMBtu/hour.

#### **Proposed Activity**

The applicant proposes to replace 6 of the 30 burners in the upper portion of the Unit 1 boiler furnace. The applicant claims that due to the age, location, material grade and low load operation of the burners, the 6 burners have experienced heat and erosion damage beyond repair. The project cost is estimated to be approximately \$204,000. OUC provided their capital expenditure estimate along with the vendor, Power & Industrial Services Corp., quotation {see Attachment 3 of the submitted application}.

The proposed activity is to take place during the next scheduled outage, commencing October 3, 2005, with a project completion date of November 30, 2005. An expiration date of May 30, 2006, for this air construction permit should allow sufficient time to complete the required monitoring and to submit the report.

#### 4. APPLICABLE REGULATIONS

#### **Regulatory Classifications**

<u>Title III</u>: Based on the initial Title V permit, the facility is a major source of hazardous air pollutants.

<u>Title IV</u>: The facility operates emissions units that are subject to the Phase II, Federal Acid Rain Program.

<u>Title V</u>: The facility is classified as a "major" source of air pollution with respect to Title V of the Clean Air Act because emissions of at least one regulated criteria air pollutant exceeds 100 tons per year.

<u>PSD</u>: The project is located in an area designated as "attainment" or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. The facility is considered a "fossil fuel fired steam electric plant of more than 250 million BTU per hour of heat input", which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a PSD-major source of air pollution with respect to Rule 62-212.400, F.A.C., the Prevention of

Significant Deterioration (PSD) of Air Quality. The three units were built pursuant to PSD permits and determinations of best available control technology (BACT).

NSPS: Units 1 and 2 are subject to Subpart Da and the combined cycle unit is subject to Subparts GG and Db of the New Source Performance Standards in 40 CFR 60.

#### Permit(s) Required

The Department requires the owner or operator of any emissions unit to obtain an appropriate permit prior to beginning construction, modification, or initial or continued operation, unless exempted pursuant to Department rule or statute. The Department has specific rules on when an air construction permit is required {see Rule 62-210.300(1), F.A.C.}, when an air operation permit is required {see Rule 62-210.300(2), F.A.C.} and when activity is exempt from permitting {see Rules 62-210.300(3) and 62-4.040, F.A.C.}. The proposed activity is not specifically exempted from permitting in Rules 62-210.300(3) or 62-4.040, F.A.C.

#### **Increase in Actual Emissions or New Emissions**

The Department's definition of a "modification" also allows certain activities to be specifically excluded if there is not an increase in "actual emissions" or new emissions. In paragraph (168), the proposed change would have to result in an increase in "actual emissions" (see citation below for definition (168), with emphasis added). Department rules contain a definition for "actual emissions" (see citation below for definition (11)).

Rule 62-210.200(168), F.A.C. - Definitions Effective: 07/06/05

- (168) "Modification" Any physical change in, change in the method of operation of, or addition to a facility which would result in an increase in the actual emissions of any air pollutant subject to regulation under the Act, including any not previously emitted, from any emissions unit or facility.
- (a) A physical change or change in the method of operation shall not include:
- 1. Routine maintenance, repair, or replacement of component parts of an emissions unit; or
- 2. A change in ownership of an emissions unit or facility.
- (b) For any pollutant that is specifically regulated by the EPA under the Clean Air Act, a change in the method of operation shall not include an increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975.
- (c) For any pollutant that is not specifically regulated by the EPA under the Clean Air Act, a change in the method of operation shall not include an increase in the hours of operation or in the production rate, unless such change would exceed any restriction on hours of operation or production rate included in any applicable Department air construction or air operation permit. {emphasis added}
- (11) "Actual Emissions" The actual rate of emission of a pollutant from an emissions unit as determined in accordance with the following provisions:
- (a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit. The Department may allow the use of a different time period upon a determination that it is more representative of the normal operation of the emissions unit. Actual emissions shall be

calculated using the emissions unit's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period. (b) The Department may presume that unit-specific allowable emissions for an emissions unit are equivalent to the actual emissions of the emissions unit provided that, for any regulated air pollutant, such unit-specific allowable emissions limits are federally enforceable. (c) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (d) of this definition) which has not begun normal operations on a particular date, actual emissions shall equal the potential emissions of the emissions unit on that date. (d) For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit) actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change, provided the owner or operator maintains and submits to the Department on an annual basis, for a period of 5 years representative of normal post-change operations of the unit, within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in an emissions increase. The definition of "representative actual annual emissions" found in 40 C.F.R. 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.

The burners are part of the original boiler installation which commenced commercial operation on May 12, 1987; the burners have been in the boiler for over 18 years. The applicant did not request a change to the capacity of this emissions unit, i.e., heat input {MMBTU/hr} or electrical output {MW}. The replacement burners are not identical. The applicant claims the new replacement burners are "functionally equivalent or a like-kind" replacement. The replacement of the burners is considered to be a physical change to the emissions unit.

The applicant claims that there will not be a "change in the method of operation or in emissions impacts" from this proposed activity. To support their claim, the applicant provided data in their permit application on the annual utilization of the unit, annual emissions and hourly heat input. Attachment 1 in the application summarizes annual utilization over the most recent 5-year period (Table 1) and Table 2 summarizes the most recent 5-year period of annual emissions. Based on the hours of operation and yearly heat inputs in Table 1, Unit # 1 has been operating at or above 90% of the unit's capacity of 4,286 MMBtu/hr. Attachment 2 shows the hourly heat input readings from the acid rain CEMS for the most recent available quarter. The readings on this graph show the unit operating up to 4,500 MMBtu/hr. The acid rain CEMS tends to overestimate heat input. Based on this information provided by the applicant in their permit application, a significant net emissions increase is not expected from this proposed activity.

#### 5. PRELIMINARY DETERMINATION

The applicant submitted an application for an air construction permit for the proposed activity. A significant net emissions increase is not expected from the proposed activity. The Department requires an air construction permit for the owner or operator to proceed with the proposed activity.

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 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. Scott M. Sheplak, P.E. is the project engineer responsible for reviewing the application and drafting the permit. 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.

#### 6. LIMITATIONS OF DEPARTMENT'S OPINION

The Department's preliminary determination is based only on the facts presented by the applicant, the Department rules to evaluate the proposed project, and the federal regulations upon which they were clearly based. The Department's opinion does not consider any other conceivable past projects that when aggregated with the present one could result in significant net emissions increases. It does not serve as a shield against any conceivable actions contemplated (to which the Department is not privy) by EPA as a result of any inquiries via the Section 114 process into past projects by the applicant at the facility. Furthermore the Department's determination is strictly limited to this specific case and should not be used as a precedent for other cases, or lead to unintended consequences construed from the language contained in this determination. Ultimately, it is the Department that interprets its own regulations and opinions.

{Filename: 0950137-009-AC TEPD}

#### DRAFT

#### **PERMITTEE**

Orlando Utilities Commission 500 South Orange Avenue Post Office Box 3193 Orlando, Florida 32802

Permit No.: 0950137-009-AC

Expires: May 30, 2006

Facility ID No.: 0950137 (SIC No. 4911) Unit # 1 Burner Replacement Project

#### PROJECT AND LOCATION

This permit authorizes the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace at the Curtis H. Stanton Energy Center. The facility is located at 5100 Alafaya Trail, Orlando, Orange County. The map coordinates are: UTM Zone 17, 484.00 km East and 3150.50 km North; and Latitude: 28° 28′ 50″ North and Longitude: 81° 09′ 40″ West.

#### 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 work specified 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.

#### **APPENDICES**

The following appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

Michael G. Cooke, Director Division of Air Resource Management

#### FACILITY DESCRIPTION

This facility consists of two coal-fired boilers (Acid Rain Phase II Units), two oil-fired combustion turbines used to drive two separate peaking generators driven by a single jet engine, and two gas-fired combustion turbines serving a single steam-electrical generator (Acid Rain Phase II Units).

There are storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash.

Unit Nos. 1 and 2 each consist of one Babcock and Wilcox boiler/steam generator (Model RB 611) and steam turbine, which drives a generator with a nameplate rating of 468 Megawatts. Each boiler/steam generator is a coal-fueled, wall fired, dry bottom unit that uses No. 6 fuel oil used for startup and flame stabilization. Each unit has a stack. Each unit is equipped with an electrostatic precipitator for control of particulate matter (PM/PM<sub>10</sub>) and a limestone scrubber for sulfur dioxide (SO<sub>2</sub>) control. Additionally, Unit 2 is equipped with a selective catalytic reduction (SCR) system for nitrogen oxides (NO<sub>X</sub>) control. Units 1 and 2 began commercial operation in 1987 and 1996, respectively.

The 640 MW combined cycle unit is comprised of two 170 MW, General Electric 7FA combustion turbine-electrical generators, fired with pipeline natural gas or diesel and equipped with evaporative coolers on the inlet air system, two supplementary fired heat recovery steam generators, each with a 160 ft. stack, and one steam turbine-electrical generator rated at approximately 300 MW. The winter capacity of this unit is approximately 700 MW. The combustion turbines are equipped with Dry Low NO<sub>X</sub> combustors as well as an SCR in order to control NO<sub>X</sub>. SO<sub>2</sub> and PM/PM<sub>10</sub> are controlled by use of inherently clean natural gas and low sulfur fuel oil.

#### **PROJECT**

The proposed project affects the following existing emissions unit:

E.U. ID No. Brief Description		
-001	Fossil Fuel Fired Steam Generator # 1	

# REGULATORY CLASSIFICATION

 $\underline{\text{Title } \Pi \text{:}}$ : Based on the initial Title V permit, the facility is a major source of hazardous air pollutants.

<u>Title IV</u>: The facility operates emissions units that are subject to the Phase II, Federal Acid Rain Program.

<u>Title V</u>: The facility is classified as a "major" source of air pollution with respect to Title V of the Clean Air Act because emissions of at least one regulated criteria air pollutant exceeds 100 tons per year.

<u>PSD</u>: The project is located in an area designated as "attainment" or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. The facility is considered a "fossil fuel fired steam electric plant of more than 250 million BTU per hour of heat input", which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a PSD-major source of air pollution with respect to Rule 62-212.400, F.A.C., the Prevention of

#### SECTION I. FACILITY INFORMATION (DRAFT)

Significant Deterioration (PSD) of Air Quality. The three units were built pursuant to PSD permits and determinations of best available control technology (BACT).

NSPS: Units 1 and 2 are subject to Subpart Da and the combined cycle unit is subject to Subparts GG and Db of the New Source Performance Standards in 40 CFR 60.

# **RELEVANT DOCUMENTS**

- Application received on September 14, 2005, for Unit 1 burner replacement project;
- Permits PSD-FL-084 and PSD-FL-084A issued by EPA for the construction of Unit Nos. 1 and 2;
- Current Title V Air Operation Permit Renewal No.: 0950137-006-AV; and
- Department's Technical Evaluation and Preliminary Determination dated [Month day, 2005].

#### GENERAL AND ADMINISTRATIVE REQUIREMENTS

- 1. <u>Permitting Authority</u>: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
- 2. <u>Compliance Authority</u>: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando Florida 32803-3767. The phone number is 407/894-7555 and the fax number is 407/897-2966.
- 3. <u>General Conditions</u>: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 5. <u>Permit Expiration</u>: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
- 6. 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.]
- 7. <u>Modifications</u>: No emissions unit or facility subject to this permit shall be constructed or 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.]
- 8. <u>Title V Permit</u>: This permit authorizes construction of the proposed project and initial operation to determine compliance with Department rules. This project involves no changes in the descriptions, applicable requirements, or conditions of the facility Title V Operation Permit. The permittee is not required to apply for a revised Title V operation permit following completion of the project.

#### EU-001. Unit # 1 - 468 MW Fossil Fuel Fired Steam Generator

The proposed project affects the following existing unit:

E.U. ID No.	Brief Description
-001	Fossil Fuel Fired Steam Generator # 1

Fossil fuel fired steam generator # 1 is a nominal 468 megawatt steam generator designated as Unit # 1. The emission unit is fired primarily on bituminous coal and secondarily on No. 6 fuel oil for startup and flame stabilization, as permitted herein, with a maximum heat input of 4286 MMBtu/hour.

Boiler/steam generator, Unit # 1 is regulated under the federal Acid Rain Program, Phase II, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Emission Units 1 is subject to compliance assurance monitoring (CAM) for particulate matter (PM) emissions controlled by an ESP. Because the continuous opacity monitoring system (COMS) is required to be used at the facility (for Phase II Acid Rain Program purposes), it must also be used as part of the CAM plan. A CAM plan is included for the ESP

The following parameters are continuously monitored for this unit: NO<sub>X</sub>, opacity, SO<sub>2</sub>, CO<sub>2</sub>, and stack gas flow.

{Permitting note(s): This emissions unit is regulated under Acid Rain, Phase II; NSPS-40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7)(b)2, F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT), and Compliance Assurance Monitoring (CAM). Fossil fuel fired steam generator # 1 began commercial operation on May 12, 1987.}

# ADMINISTRATIVE REQUIREMENTS

1. <u>Previous Permit Conditions</u>: This permit authorizes the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace. The following conditions are in addition to those of any other air construction or operation permits. [Rule 62-4.210, F.A.C.]

#### **CONSTRUCTION ACTIVITIES**

- 2. <u>Burner Replacement</u>: This permit authorizes the replacement of 6 of the 30 burners in the upper portion of the Unit # 1 boiler furnace. The permittee shall replace the burners with burners that are "functionally equivalent or like-kind." [Applicant Request dated September 12, 2005]
- 3. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate emissions shall be minimized by dust suppressing techniques such as covering, enclosing, applying water or chemicals to the affected areas, or any combination of techniques, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

# NOTIFICATIONS AND REPORTS

#### EU-001. Unit #1 - 468 MW Fossil Fuel Fired Steam Generator

4. <u>Notifications</u>: Within one week of beginning construction, the permittee shall notify the Compliance Authority that the project has commenced and provide a general schedule of construction activities. Within one week of completing construction, the permittee shall notify the Compliance Authority that the project has concluded and provide a general schedule of bringing the unit back on line. [Rule 62-4.210, F.A.C.]

# 5. Emissions Monitoring:

- a. Completion of this project occurs when all burners have been installed and are operational. After completion of this project, the permittee shall monitor NO<sub>X</sub>, opacity, and SO<sub>2</sub> emissions consistent with the averaging times specified in Permit No. 0950137-006-AV. The monitoring period shall be conducted with the 6 new burners in operation. The permittee shall submit a report comparing the emissions data during this period to the specific emission limits in Permit No. 0950137-006-AV, within 60 days of completion of this project. The permittee shall provide a statement as to whether or not the unit is in compliance with the specific emission limits in Permit No. 0950137-006-AV. [Rule 62-4.070(3), F.A.C.]
- b. The actual operating rates of Unit # 1 during this monitoring period, specifically, heat input {MMBTU/hr}, electrical output {MW}, type(s) of fuel(s) fired shall be provided in the report. The number of burners in operation, identification and their respective locations shall also be included in the report. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]
- 6. <u>PSD Applicability Report</u>: The permittee shall maintain information demonstrating that the project did not result in any significant net emissions increase, which is defined in Rule 62-212.400(2)(e), F.A.C. as follows:

#### EU-001. Unit # 1 - 468 MW Fossil Fuel Fired Steam Generator

**Net Emissions Increase.** A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero.

**Significant Net Emissions Increase.** A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates.

The permittee shall submit an annual report to the Department's Bureau of Air Regulation of such information for a period of 5 years representative of normal post-change operations of the unit (within the period not longer than 10 years following the change). For an existing electric utility steam-generating unit, actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change. The following definition of "representative actual annual emissions" found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.:

Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:

- (i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and
- (ii) Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole."

Each required annual report shall be submitted to the Department's Bureau of Air Regulation prior to **August 1**<sup>st</sup> and shall quantify operations for the previous calendar year(s).

[Rules 62-204.800, 62-210.200(11) and 62-212.400(2), F.A.C.; and 40 CFR 52.21(b)(33)]

#### SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

# Appendix GC - Construction Permit General Conditions

- G.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, Florida Statutes. 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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, 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.
- G.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.
- G.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 Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.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.
- G.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.

- G.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.

#### SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

# Appendix GC - Construction Permit General Conditions

- The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
- G.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 Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 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.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
  - (a) Determination of Best Available Control Technology (not applicable to project);
  - (b) Determination of Prevention of Significant Deterioration (not applicable to project); and
  - (c) Compliance with New Source Performance Standards (not applicable to project).
- G.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.
- G.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.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	A. Signature  Agent  Addressee  B. Received by (Printed Name)  C. Date of Delivery  P 9 9 2005
1. Article Addressed to:  Mr. Frederick F. Haddad, Jr.  Vice President, Power Resources  Business Unit	D. Is delivery address different from item 1?   If YES, enter delivery address below:   No
Orlando Utilities Commission 500 South Orange Avenue Orlando, Florida 32802	3. Service Type  Certifled Mail □ Express Mail □ Registered □ Return Receipt for Merchandise □ Insured Mail □ C.O.D.  4. Restricted Delivery? (Extra Fee) □ Yes
2. Article Number     7004 1350 (Transfer from service label)	0000 1910 4229
PS Form 3811, February 2004 Domestic Retu	urn Receipt 102595-02-M-1540

U.S. Postal Service™ CERTIFIED MAILTON RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) 1910 Postage 0000 Certified Fee Postmark Return Reciept Fee (Endorsement Required) Here 1,350 Restricted Delivery Fee (Endorsement Required) Mr. Frederick F. Haddad, Jr. Vice President, Power Resources Business Unit Orlando Utilities Commission 500 South Orange Avenue Orlando, Florida 32802 PS Form 3800, June 2002

# Sheplak, Scott

From:

Sheplak, Scott

Sent:

Wednesday, October 05, 2005 11:57 AM

To:

'Osbourn, Scott'

Subject:

Curtis H. Stanton Energy Center













enclosed an updated package.

Please find

The technical, draft permit and public notice have been changed.

Thanks for your prompt review!

# October 4, 2005

Re: DEP File No.: 0950137-009-AC Curtis H. Stanton Energy Center Unit 1 Burner Replacement Project

On October 3, the Department received via e-mail a notification that the scheduled date for the Unit 1 outage had changed. The date has been changed to begin approximately February 25, 2006, with a project completion date of March 26.

# Sheplak, Scott

From: Osbourn, Scott [Scott\_Osbourn@golder.com]

**Sent:** Monday, October 03, 2005 2:25 PM

To: Sheplak, Scott

Cc:dstalls@ouc.com; lbrown@ouc.comSubject:FW: SEC Units Outage Dates

As we discussed, the outage date has been moved back. Since the previous outage date is specifically mentioned in the "Notice of Intent", this e-mail serves to notify of the new date and the revision necessary to the document. We ask that you not hold us to this date (i.e., no language that states that construction cannot commence until 2/25/06), but use this date as an approximate date that the outage may commence—could be sooner or later. In addition, as you need to have an expiration date in the permit, please use 7/31/06. Finally, in the draft permit text, under "Facility Description" delete the reference to the "two oil-fired CT peaking units...".

Scott Osbourn, P.E. Golder Associates Inc 5100 West Lemon St., Suite 114 Tampa, FL 33609

Tel: (813) 287-1717 Fax: (813) 287-1716

E-mail: sosbourn@golder.com

#### ATTORNEY/CLIENT COMMUNICATION OR WORK PRODUCT

Disclaimer Notice:

This email message is intended solely for the use of the individual to whom it is addressed and may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please immediately notify us by sending this message back to us and delete the original message. Thank you.

----Original Message----

From: Brown, Louis [mailto:LBrown@ouc.com] Sent: Wednesday, September 28, 2005 9:32 AM

To: Osbourn, Scott Cc: Stalls, Denise

Subject: FW: SEC Units Outage Dates

Scott,

Breaking news ..., as they say.

The Unit 1 outage has been rescheduled for February 25, 2006 through March 26, 2006.

As a result, we will not be doing the burner changeout this Fall.

Please advise as to the regulatory steps that need to be taken, in light of this development.

Thank you.

Louis

#### Golder Associates Inc.

5100 West Lemon Street, Suite 114 Tampa, FL USA 33609 Telephone (813) 287-1717 Fax (813) 287-1716 www.golder.com



DATE: 9/13/2005

Project No.: 0539505-0100

# TRANSMITTAL LETTER

TO: South Permitting Section

DARM/BAR

Florida Department of Environmental Protection

2600 Blair Stone Road

Tallahassee, Florida 32399-2400

Attention: Mr. Scott Sheplak

SENT VIA: Federal Express (priority) per Mr. Scott Osbourn

QUANTITY:	ISCEM	DESCRIPTION
1	Bound Original	Application for Air Permit, OUC Stanton Energy Center, Unit 1
3	Bound Copies	Application for Air Permit, OUC Stanton Energy Center, Unit 1
DEMADES. For your files		

REMARKS: For your files.



Orlando Utilities Commission 500 South Orange Avenue P.O. Box 3193 Orlando, Florida 32802

Phone: 407.423.9100

Administrative Fax: 407.236.9616 Purchasing Fax: 407.384.4141

Website: www.ouc.com



BUREAU OF AIR REGULATION

September 12, 2005

Mr. Scott Sheplak
South Permitting Section
DARM/BAR
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Attention: Mr. Sheplak

RE: OUC STANTON ENERGY CENTER, UNIT 1
PLANNED OUTAGE- BURNER REPLACEMENTS

Dear Mr. Sheplak:

This letter serves to transmit additional information with respect to the upcoming outage scheduled for Stanton Unit 1 and the necessity of obtaining a construction permit for certain planned activities. Specifically, the outage is scheduled to begin on October 3, 2005 and the activity of interest is the repair and replacement of worn burners.

Stanton Unit 1 is a nominal 468 MW steam generator with a nominal heat input of 4,286 MMBtu/hr. This unit is fired primarily on bituminous coal. The unit is also equipped to fire No. 6 fuel oil, pipeline quality natural gas, on-spec used oil and landfill gas. Unit 1 is categorized as a dry bottom wall-fired unit consisting of a Babcock and Wilcox boiler/steam generator, Model RB 621. Best Available Control Technology (BACT) has been applied for all pollutants. Particulate emissions are controlled by a dry electrostatic precipitator, SO<sub>2</sub> emissions are controlled by a flue gas desulfurization system, and NOx emissions are minimized by good combustion practices. This unit began commercial operation on May 12, 1987.

The Stanton Energy Center Steam Generators utilize pulverized coal in conjunction with heated air for furnace ignition using the existing burner system. The existing burners have two different air control registers that circulate the air around the pulverized coal in two air zones. The zones are adjusted for flame stabilization and proper flame circulation. By creating a two-zone burner, the combustion has a larger flame volume, resulting in lower flame temperatures and reduced  $NO_x$  formation. Maintaining burners are necessary for proper combustion, low  $NO_x$  emissions, and flame stabilization at low load conditions.

Due to age and location on the Unit 1 steam generator, six burners have experienced heat and erosion damage beyond repair and improper flame characteristics have resulted. The steam generator has thirty burners; the damaged ones are located in the upper portion of the furnace at one level. This particular level is typically not in use, which made the burners more susceptible to radiant heat damage. Cooling air is provided but, due to time, low load operations and the material grade of the burners; warping of the burner air registers and seal area is prevalent.

Mr. Sheplak September 12, 2005 Page 2

A burner replacement is planned for the upcoming outage, which is scheduled to commence on October 3, 2005 and conclude on November 30, 2005. As stated previously, six out of thirty burners in the upper portion of the furnace will be replaced. The new replacement burners are characterized as functionally equivalent or a "like-kind" replacement, with upgraded material and improved mechanical actuator controls. The project cost is estimated at \$204,000.

The first issue is whether the project is exempt in accordance with the Department's definition of a modification under existing rules (Florida Section 62-210, F.A.C.). The project is arguably a physical change and thus is eligible for consideration as a modification. However, it should be considered whether the project is exempt from the definition of modification as provided in Section 62-210.200(169)(a)., F.A.C. This provision states:

A physical change or change in method of operation <u>shall not</u> include: <u>Routine</u> maintenance, repair, or replacement of component parts of an emission unit. (Emphasis added.)

This exemption is dependent on the definition of "routine". Two recent court cases, of some relevance to these planned activities, have resulted in differing interpretations with respect to the meaning of routine. The *Ohio Edison* ruling (August 7, 2003) maintained that the meaning of "routine" was with respect to activities for a particular emission unit. The *Duke Power* ruling (August 26, 2003) was that "routine" was relative to an entire source category (i.e., is the activity routine in the industry). Burner repairs and replacements are typically required during the life of an electric utility steam generating unit (EUSGU) and such repairs and replacements are routine within the industry.

Not with standing whether the proposed activity is routine repair and replacement, a modification can only occur if it would result in an increase in actual emissions for the facility. In making a comparison of whether an increase in actual emissions has occurred, the utilization before and after the change is the most important indicator, *especially if the change did not by itself affect the emission rate of the unit*. The following paragraphs provide additional information with respect to both short-term impacts (i.e., affect on heat input rate) and long-term impacts (i.e., annual utilization).

Short-term impacts can be assessed in terms of the unit's fuel flow or heat input, expressed as million Btu per hour (MMBtu/hr). This parameter, combined with pollutant emission rates in lb/MMBtu, yields a pollutant mass emission rate of pounds per hour (lb/hr). This analysis is based on the assumption that, as long as the short-term heat input is not affected by the proposed activity, then short-term pollutant emission rates are similarly unaffected. This is because comparison of actual emissions are confounded by several factors, including the availability of continuous emission monitoring data, data reporting procedures, fuel quality and sampling variability. Taken together, comparisons of emissions would have to account for a variety of factors in order to draw conclusions with regard to whether or not emissions have increased as a result of a physical or operational change. The short-term measure of heat input rate (MMBtu/hr) is currently provided as a nominal rating in the Unit 1 permit of 4,286 MMBtu/hr. While Acid Rain monitoring data are not used for compliance with the permitted heat input rating, as it tends to over-estimate heat input, this data provides a good indicator of unit capacity. Historical data was obtained for the most recently available operating quarter (1st Quarter, 2005), plotted and compared to the unit's maximum rated capacity (Permit Application, Attachment 2). It is clear that unit operation has not degraded with respect to maximum

Mr. Sheplak September 12, 2005 Page 3

achievable capacity and that activities planned for the upcoming outage are not for the purpose of restoring or otherwise impacting the short-term heat input rate.

Long-term impacts, or annual utilization, can be measured in several ways. Stanton Unit 1 is characterized as a base load unit, which means that it is designed to be operated at a high capacity factor. Operation is based on system wide electricity demand, which can vary annually due to weather conditions and the availability of other units. This would be evidenced by utilization of the unit for the most recent 5-year period (2000 to 2004). To evaluate whether an increase in utilization is anticipated to occur as a result of the planned outage activity, the highest 2-year average of historical use (2000-2001) is compared to projected future utilization for the 2-year period following the outage. OUC obtains future utilization estimates from the production cost models that are used to project fuel requirements and, for purposes of this assessment, the projected utilization is expected to be equivalent to the highest year out of the last 5 year period.

A comparison of average utilization rates before and after the planned outage shows that no increase is projected to occur. The utilization comparison was made for three parameters that are considered representative of annual operating measurements: 1) heat input in million Btu per year (MMBtu/yr), 2) net generation in MW-hours (net, MW-hrs) and 3) hours of operation per year. These data are summarized below in tabular form.

Year of Operation	Heat Input (MMBtu/yr)	Generation (net, MW-hrs)	Hours Operated
2000	33,000,823	3,189,287	8,025
2001	33,180,949	3,147,090	8,080
2002	31,094,095	2,997,911	7,767
2003	31,842,481	3,098,337	7,986
2004	28,504,372	2,823,306	7,471
Highest 2-yr Avg. 2000-2001	33,090,886	3,168,189	8,053
2005-2006*	33,180,949	3,189,287	8,080

<sup>\*</sup> Equal to the highest single year of the last 5 year period.

As stated, Unit 1 is a base load unit and already highly utilized. Any anticipated increase in future utilization, though currently not predicted, would be due to system-wide demand growth and unrelated to the repair and replacement activities planned for the upcoming outage. The comparisons of short-term (heat input rate) and long-term impacts (annual utilization) both before and after the proposed outage activities provide reasonable assurance that no change in the method of operation or in emission impacts is anticipated to occur as a result of the planned outage activities.

OUC believes, based on the above project summary, that no construction permit is necessary for the planned outage activity. In fact, a meeting was held at the Department's offices on August 18, 2005 among Michael Cooke and Trina Vielhauer of the Department, Louis Brown of OUC and Scott Osbourn of Golder Associates. Specifically, the meeting's purpose was to discuss the routine

Mr. Sheplak September 12, 2005 Page 4

maintenance, repair and replacement (RMRR) activities frequently performed by utilities as part of their ongoing planned outages and the decision making process that the Department uses to guide whether permitting action is required. Mr. Cooke's response was that the Department would form an internal work group to address this issue and provide specific guidance for circumstances such as this. In the meantime, due to current regulatory uncertainty with respect to proper treatment of equipment repair and replacement projects, as well as discussions with the Department, this letter serves to transmit an application for a construction permit for the described activities. The application includes the following three attachments: 1) Attachment 1-summary tables of annual utilization (Table 1) and annual emissions (Table 2), 2) Attachment 2- graphical depiction of hourly heat input and 3) Attachment 3- the scope of work issued for bid for the activities to be performed.

OUC appreciates your consideration of the above and requests your timely processing of the subject permit. If you should have any questions, please do not hesitate to contact either Scott Osbourn at (813) 287-1717 or me at (407) 737-4236.

Sincerely,

Louis M. Lown

Denise M. Stalls
Director, Environmental Division

Attachments

Cc: Scott Osbourn, P.E., Golder Associates Inc. Leonard T. Kozlov, P.E., DEP Central District



## Department of Environmental Protection

# Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

**Air Operation Permit** – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

<u>Id</u>	entification of Facility	
1.	Facility Owner/Company Name: Orlando U	Utilities Commission
2.	Site Name: Stanton Energy Center	
3.	Facility Identification Number: 0950137	
4.	Facility Location.	
	Street Address or Other Locator: 5100 Ala	faya Trail
	City: Orlando County:	Orange Zip Code: 32831
5.	Relocatable Facility?	6. Existing Title V Permitted Facility?
	Yes X No	X Yes No
<u>A</u> p	oplication Contact	
1.	Application Contact Name: Denise Stalls	
2.	Application Contact Mailing Address.	
	Organization/Firm: Orlando Utilities Com	mission
	Street Address: P.O. Box 3193	
	City: Orlando Si	tate: FL Zip Code: 32802
3.	Application Contact Telephone Numbers	
	Telephone: (407) 737 - 4236 ext.	Fax: (407) 384 – 4020
4.	Application Contact Email Address: dstall	s@ouc.com
Ap	oplication Processing Information (DEP U	Use)
1.	Date of Receipt of Application:	9-14-05
2.	Project Number(s):	9-14-05 0950137-009-AB

1

DEP Form No. 62-210.900(1) - Form

3. PSD Number (if applicable):4. Siting Number (if applicable):

Effective: 06/16/03



# Department of Environmental Protection

## **Division of Air Resource Management**

#### **APPLICATION FOR AIR PERMIT - LONG FORM**

### **Purpose of Application**

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit  X Air construction permit.
Air Operation Permit  Initial Title V air operation permit.  Title V air operation permit revision.  Title V air operation permit renewal.  Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.  Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)  Air construction permit and Title V permit revision, incorporating the proposed project.  Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Effective: 06/16/03

#### Application Comment:

This application serves to transmit additional information with respect to the upcoming outage scheduled for Stanton Unit 1 to repair and replace damaged coal burners in Unit No. 1. The outage is scheduled to commence on October 3, 2005. The unit consists of a nominal 468 MW steam generator with a nominal heat input of 4,286 MMBtu/hr. This unit began commercial operation on May 12, 1987.

The Stanton Energy Center Steam Generators utilize pulverized coal in conjunction with heated air for furnace ignition using the existing burner system. The existing burners have two different air control registers that circulate the air around the pulverized coal in two air zones. The zones are adjusted for flame stabilization and proper flame circulation. By creating a two-zone burner, the combustion has a larger flame volume, resulting in lower flame temperatures and reduced NO<sub>x</sub> formation. Maintaining burners are necessary for proper combustion, low NO<sub>x</sub> emissions, and flame stabilization at low load conditions.

Due to age and location on Unit 1 steam generator, six burners have experienced heat and erosion damage beyond repair and improper flame characteristics have resulted. The steam generator has thirty burners; the damaged ones are located in the upper portion of the furnace at one level. This particular level is typically not in use, which made the burners more susceptible to radiant heat damage. Cooling air is provided but, due to time, low load operations and the material grade of the burners; warping of the burner air registers and seal area is prevalent.

A burner replacement is planned for the upcoming outage. As stated previously, six out of thirty burners in the upper portion of the furnace will be replaced. The new replacement burners are characterized as functionally equivalent or a "like-kind" replacement, with upgraded material and improved mechanical actuator controls. The project cost is estimated at \$204,000.

Unit 1 is a base load unit and already highly utilized. Any anticipated increase in future utilization, though currently not predicted, would be due to system-wide demand growth and unrelated to the burner replacement activities planned for this project. The comparisons of short-term (heat input rate) and long-term impacts (annual utilization) both before and after the proposed burner replacement activities provide reasonable assurance that no change in the method of operation or in emission impacts is anticipated to occur as a result of the planned activities.

Attachment 1 provides a summary of annual utilization over the most recent 5-year period (Table 1), as well as a summary of the most recent 5-year period of annual emissions estimates. Attachment 2 graphically depicts hourly heat input readings (as recorded by the Acid Rain CEMS) for the most recent available quarter (1st quarter, 2005). Attachment 3 provides the vendor quotation for the burner replacement.

DEP Form No. 62-210.900(1) - Instructions Effective: 06/16/03 3

## **Scope of Application**

Emissions Unit ID Number	it ID Description of Emissions Unit		Air Permit Proc. Fee	
002	Fossil Fuel Steam Generator Unit No. 1	AC		

# **Application Processing Fee**

Check one:	Attached - Amount: \$	X Not Ap	plicable

#### Owner/Authorized Representative Statement

#### Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name: Frederick F. Haddad

VP, Power Resources Business Unit

2. Owner/Authorized Representative Mailing Address...

Organization/Firm: Orlando Utilities Commission

Street Address: P.O. Box 3193

City: Orlando

State: FL

Zip Code: 32802

3. Owner/Authorized Representative Telephone Numbers...

Telephone: (407) 244 - 8732

ext.

Fax: (407) 275 – 4120

4. Owner/Authorized Representative Email Address: fhaddad@ouc.com

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted entissions unit.

gnature

9/12/05

DEP Form No. 62-210.900(1) - Instructions

Effective: 06/16/03

6

#### **Application Responsible Official Certification**

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name:
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
	For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
	The designated representative at an Acid Rain source.
3.	Application Responsible Official Mailing Address  Organization/Firm:
	Street Address:
	City: State: Zip Code:
4.	Application Responsible Official Telephone Numbers  Telephone: ( ) - ext. Fax: ( ) -
5.	Application Responsible Official Email Address:
6.	Application Responsible Official Certification:
	I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.
	Signature Date

DEP Form No. 62-210.900(1) - Instructions Effective: 06/16/03 6

	ofessional Engineer Certification
1.	Professional Engineer Name: Scott Osbourn
_	Registration Number: 57557
2.	Professional Engineer Mailing Address Organization/Firm: Golder Associates Inc.
	Street Address: 5100 West Lemon St., Suite 114
	City: Tampa State: FL Zip Code: 33609
3.	Professional Engineer Telephone Numbers
	Telephone: (813) 287 - 1717 ext. 211 Fax: (813) 287 - 1716
4.	Professional Engineer Email Address: sosbourn@golder.com
5.	Professional Engineer Statement:
	I, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here $x$ , if so) or concurrently process and obtain an air construction permit and a Title $y$ air operation permit revision or renewal for one or more proposed new or modified emissions units (check here $y$ , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.
	9/12/05 MILLION
	Signature Date

DEP Form No. 62-210.900(1) - Instructions Effective: 06/16/03

7

<sup>\*</sup> Attach any exception to certification statement.

#### **Attachment 1. Data Summary**

This attachment is a supplement to the construction permit application for OUC Stanton Unit 1. Table 1 provides annual utilization data (past and future projected). Table 2 provides a summary of the most recent 5-years of reported annual emissions data.

The utilization comparison (Table 1) was made for three parameters that are considered representative of annual operating measurements: 1) heat input in million Btu per year (MMBtu/yr), 2) net generation in MW-hours (net, MW-hrs) and 3) hours of operation per year. These data are summarized below in tabular form.

Table 1. Annual Utilization Summary

Year of Operation	Heat Input (MMBtu/yr)	Generation (net, MW-hrs)	Hours Operated
2000	33,000,823	3,189,287	8,025
2001	33,180,949	3,147,090	8,080
2002	31,094,095	2,997,911	7,767
2003	31,842,481	3,098,337	7,986
2004	28,504,372	2,823,306	7,471
Highest 2-yr Avg. 2000-2001	33,090,886	3,168,189	8,053
2005-2006*	33,180,949	3,189,287	8,080

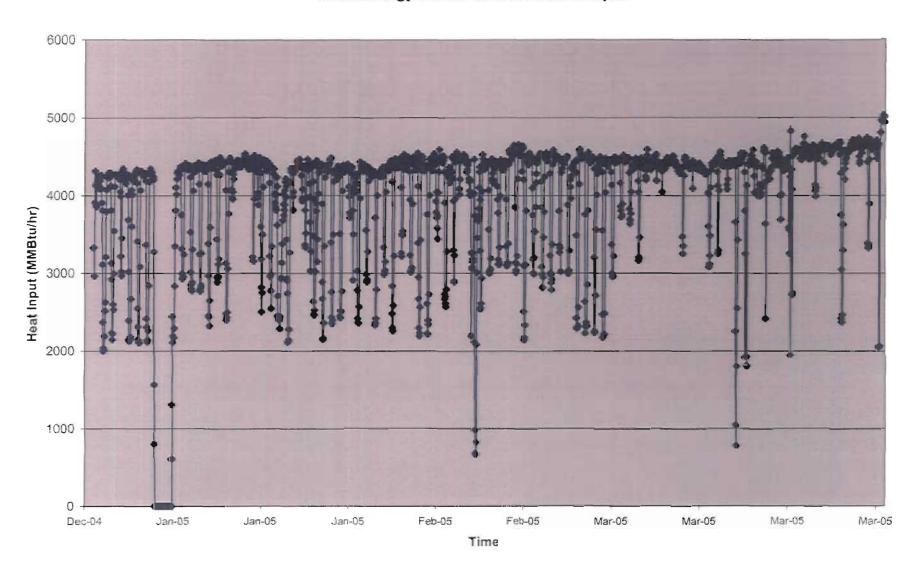
<sup>\*</sup> Equal to the highest single year of the last 5 year period.

A summary of annual reported emissions for all criteria pollutants is presented below in Table 2. The summary was obtained from AOR data as reported for the most recent 5-year period (2000 through 2004).

Table 2. Annual Emissions Summary

Year of Operation	NOx	SO2	СО	PM	PM10	VOC
1 22	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)
2000	6,977	6,577	395	593	30.0	44.5
2001	7,529	6,851	388	135	30.0	43.5
2002	6,246	5,355	413	43.2	37.2	44.8
2003	6,155	5,374	413	47.4	30.3	45.0
2004	5,968	4,274	395	39.5	39.5	43.8
Highest 2-yr Average	7,253	6,714	413	364	34.9	44.9

## Stanton Energy Center Unit No. 1 Heat Input





# Orlando Utilities Commission Capital Expenditure Estimate

Date	4		Originator	J.D. Czarr	niecki		
Capital Job #	<u> </u>		Originator Work	Order#		W	
Classification Of Ex	xpenditure:						
<u>x</u> Replacement			Project Start Date October 3.2005			005	
	n (additional capacity of lant or equipment)	1	Project Completi	on Date	November 3	0,2005	
Growth (new plant or equipment) Is Commission Approval Required? Yes X No							
Other			Fiscal Year Brea	kdown	2006		
Maintaining Stanton and flame stabilization burners are damage	Brief Description & Justification  Maintaining Stanton Energy Center Unit 1 coal burners are necessary for proper combustion, low Nox emissions and flame stabilization at low load operation. Due to age, location, material grade and low load operation, six burners are damaged beyond repair. Replacing six out of thirty burners with equivalent replacements is necessary. Installation will part of boiler outage work-scope.						
	ORI	GIN/	L COST ESTI				
Labor Hours			Direct	0	verhead	Total	
Labor Cost (Include L	.abor O/H)		\$0.00	_	\$0.00	\$0.00	
Material Cost (Include	Material & Truck Stock O/H	)	\$0.00		\$0.00	\$203,340	
Other Cost (Include A	Administrațion O/H)		\$0.00		\$0.00	\$0.00	
Total Original Reque	est ————				<u> </u>	\$203,340.00	
Description of Cha	nge Request						
Labor Hours			Direct	0	verhead	Total	
Labor Cost (Include L	abor O/H)		\$0.00		\$0.00	\$0.00	
Material Cost (Include	Material & Truck Stock O/H)		\$0.00		\$0.00	\$0.00	
Other Cost (Include Ad	dministration O/H)		\$0.00		\$0.00	\$0.00	
Change Request Tot	tal ———				<b></b>	\$0.00	
REVISED TOTAL PR					<u> </u>	\$0.00	
		A	PPROVALS				
Approval Description	Originating Director	V	ice President	Gener	al Manager	Commission	
Original Estimate							
Date							
Change Estimate							
Date			-				

**PURCHASE REQUEST** 

					PURCI	HASE REQ	UEST	
Orig	ginator Sectio	n						
Dep	t/Div/Sec		Originator Name	Ext.	Fax Number			
	U/SEC		J. D. Czarniecki	3781	407-244-8794			
Wor	k Order #	_	Account Number	Request Date	Date Material Services Needed			
					9/30/05			
Used	d For:		Stanton Energy Cer	iter Unit 1 Steam	Generator Burn	ner System		
Knov	v Vendors(s)		B&W Vendor # 105	5717, Power & Ii	ndustrial # 1207	79		
Purc	chasing Crite	ria:(Low I			valuated Low B		$\overline{C}$	
Justi	Source fication							
Line#	Quantity			on of Item		Unit Price	Extended Price	
1	3 each		egister Burner Assemb			\$31,000	\$93,000	
		Nozzle	assembly, direct repla	cement or equiva	alent.			
				<del> </del>				
2	3 each		gister Burner Assemb			\$31,000	\$93,000	
		Nozzle a	issembly, direct replac	ement or equiva	lent.		_	
			W Boiler RB-611, OU					
_			s, Igniters, and nozzle	assembly. Thro	at sleeve			
		Casings	are not needed.					
_								
_			shall supply drawings					
			sed during bid opening	g. Quoted price:	shall be			
_		Good for	r 60 days.					
_								
_								
_								
			•					
_							-	
						Subtotal		
						Freight		
_				_		Total	\$186,000	
	<u> </u>	<u> </u>					j · · · · · ·	



Donora Industrial Park, 95 Washington Street P.O. Box 211, Donora, Pennsylvania 15033

724.379.4477 1.800.676.7116 Fax 724.379.4408 www.piburners.com

#### **QUOTATION**

#### November 18, 2004

P&I Q04-0993

Customer:

Orlando Utilities Commission

Phone:

407-658-6444

Plant:

Stanton Energy Center

Fax:

407-244-8794

Code:

ORLSTA

Email:

jczarniecki@ouc.com

Attention:

Jim Czarniecki

Subject:

Unit 1 – Replacement DRB Burner

#### Power & Industrial Services is pleased to present the following quotation:

Item	Description	Qty	Unit Price
1	Replacement DRB Burner Cell Assembly without Nozzle Assembly –	1	\$ 29,875.00
1	<ul> <li>Replacement DRB Burner Cell Assembly without Nozzle Assembly – for Unit No. 1:</li> <li>Per drawing 294355 E Rev 5</li> <li>Use of Push / Pull mechanisms for the Spin Vanes instead of the existing gear arrangementto improve reliability of movement</li> <li>Use of 309 SS for Throat Sleeve (2-5665-SA1) as previously suppliedto be part of Burner Cell Assembly</li> <li>Use of 309 SS for Outer Register Front, Rear Plates and Vanes</li> <li>P&amp;I style center linkage for Outer Registerto improve reliability of movement of vanes</li> <li>Use of 309 SS for Inner Air Zone Sleeve and Spin Vanes</li> <li>Includes Observation Port and Outer Register Handle &amp; Quadrant</li> <li>Includes manual drives for the Inner Air Zone Disc and Spin Vanes</li> <li>Slip Seal Packing to ship loose for field installation</li> <li>Customer to reuse existing Flame Scanners and Igniters</li> </ul>	1	\$ 29,875.00 each
2	<ul> <li>Customer to specify CW or CCW arranement when ordering</li> <li>Nozzle Assembly- P&amp;I P/N 2-5757-A</li> <li>17.25" ID x 116" OAL</li> <li>36" Long PI2000 Heat and Abrasion Resistant Tip</li> <li>Mounting holes for Coal Deflector</li> <li>Seal Ring tac welded in place for shipping</li> <li>36" Long area at Nozzle inlet to have Thermal Spray coating</li> <li>Does not include Coal Deflector or Conical Diffuser</li> <li>Same as previously supplied</li> </ul>	1	\$ 2,185.00 each

3	Throat Sleeve Casing Assembly- P&I P/N 2-5665-SA2	1	\$ 895.00
	• Use of 309 SS		each
	Same as previously supplied		

#### Notes:

Due to the unstable price of nickel alloy, extended firm pricing of high grade nickel based heat resistant alloys can no longer be offered. Until prices become more stable we recommend that your purchase be made within 15 days of our quotation date.

Please call if you have any questions or need additional information. Thank you for your interest in Power & Industrial Services.

Delivery:

10 to 12 Weeks ARO

FOB:

SPFC - Shipping Point Freight Collect

Terms:

Net 30 Days

Sincerely Yours.

Rick Vano

RV/mlr