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BLACK & VEATCH CORPORATION
11401 LAMAR, OVERLAND PARK, KS
+1 913-458-7563 | SOLTYSIM@BV.COM

June 30, 2011

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BUREAU OF
AIR REGULATION

Florida Dept. of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road, Mail Stop 5500
Tallahassee, FL 32399-2400

Attn: Mr. Al Linero, P.E.

Subject: Minor Source Air Construction Permit Application
OUC Stanton Energy Center

On behalf of the Orlando Utilities Commission, Black & Veatch submits the attached application for a minor source air construction permit to install and operate a temporary pollution control system on OUC's Stanton Unit 2 during test burns of Illinois basin coal. Due to decreasing amounts of the Central Appalachian coal which is currently being utilized at Stanton, OUC is investigating the use of coals from the Illinois basin.

OUC has preliminarily scheduled the coal test burns to begin in late July 2011 and last approximately 11 weeks. However, OUC is also establishing and finalizing contracts with vendors and suppliers to support this activity, as well as preparing for a 4 week Unit 2 outage scheduled to begin September 17, 2011. Therefore, OUC requests this permit be valid until December 31, 2011, to allow for flexibility to conduct the proposed coal test burns and minimize plant operational impacts during this period. Due to the upcoming outage, the coal test burn may not happen over consecutive weeks. The coal test will be comprised of blending various amounts of Illinois basin coal (between 25 and 75 percent) with the current contract Central Appalachian coal.

The Illinois basin coal has a higher sulfur content (up to 2.9%) than the contract coal. OUC proposes to utilize a dry sorbent injection (DSI) of hydrated lime into the exhaust gas duct work upstream of the ESP to remove the sulfuric acid mist (H₂SO₄) emissions from the Unit 2 stack to a concentration of approximately 5 ppm. The proposed temporary DSI system will require minor additional material handling systems for the hydrated lime additive. The temporary system which will be constructed by OUC or rented may consist of a single or double bulk storage vessel/silo (20 to 40 ton capacity) with a dust collector or other comparable control device, and variable speed rotary discharge valves, multiple electric blowers, an electric compressor, a reagent scale/load cell system, a data logger and control panel, and various hoses, lances, splitters, and nozzles to distribute the sorbent in the Unit 2 exhaust gas duct. A final system has not yet been determined.

Expiry date →

Additionally, the preliminary H₂SO₄ emissions calculations for the test burns were calculated from the Unit 2 air heater prior to the DSI system. These emission levels were then used to determine the required DSI control level to 5 ppm of H₂SO₄ to ensure no increase in emissions during the test period. Conservatively, no additional H₂SO₄ removal was assumed from the wet limestone flue gas desulfurization (WFGD) system.

The use of the DSI system to control H₂SO₄ will result in minor increases of particulate matter (hydrated lime) during this period. However, based on an assumed 99 percent control from the ESP and an assumed DSI injection rate for the worst-case fuel blend of 75 percent, the estimated increase in PM during this 11 week period is 9.1 tons. This estimated amount of PM does not include potential removal from the WFGD, and is therefore conservatively estimated. Also, the Illinois basin coal will be displacing Central Appalachian coal during this period and therefore OUC does not anticipate a significant increase in particulate matter emissions from the existing material handling system. Therefore, considering the estimated increase in PM of 9.1 tons (filterable PM), this is less than the NSR/PSD major source threshold of 25 tons, it is assumed that PM₁₀ and PM_{2.5} are also less than the respective NSR/PSD thresholds of 15 and 10 tons.

A review of the Stanton Title V Permit and Conditions of Certification did not indicate any restrictions on coal source, coal blending, or coal sulfur content. However, Unit 2 does have a sulfur dioxide (SO₂) emissions limit (0.25 lb/MBtu) and H₂SO₄ emissions limits (0.033 lb/MBtu; 140 lb/h; 613 ton/yr) which is the pollutant proposed for control by this application.

The Unit 2 CEMS system will be used to monitor SO₂, NO_x, CO, and opacity for the duration of the tests, using the CO data as a representative surrogate for VOC emissions. OUC recognizes that all conditions of the existing Title V Permit and Conditions of Certification related to emission limits and control equipment will remain in force during the tests. OUC will provide FDEP a 24-hour advance notice of the testing.

To aid in the review of this minor source application the following have been included in this letter:

- Attachment 1 – FDEP air application forms
- Attachment 2 – A process flow diagram
- Attachment 3 – Typical DSI equipment

Enclosed are an original and three copies of an air permit application package. OUC would appreciate your timely processing of this request to maintain the preferred test schedule. Please contact me at (913) 458-7563 (soltysjm@bv.com) or David Baez of OUC at (407) 434-3072 (dbaез@ouc.com) if you have any questions or concerns.

Very truly yours,

BLACK & VEATCH CORPORATION



Michael Soltys
Project Manager

jms
Enclosure

cc: Caroline Shine, DEP-Central District
Garfield Blair, OUC-Director of Environmental Affairs
David Baez, OUC-Project Engineer, Environmental Affairs

ATTACHMENT 1



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 any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

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

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... Stanton Energy Center Street Address or Other Locator: 5100 South Alafaya Trail City: Orlando County: Orange Zip Code: 32193	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: David R. Baez	
2. Application Contact Mailing Address... Organization/Firm: Orlando Utilities Commission Street Address: P.O. Box 3193 City: Orlando State: FL Zip Code: 32802	
3. Application Contact Telephone Numbers... Telephone: (407) 434 - 3072 ext. Fax: (407) 244 - 8794	
4. Application Contact E-mail Address: dbaez@ouc.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 7-1-11	3. PSD Number (if applicable):
2. Project Number(s): 0950137-038-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

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.

APPLICATION INFORMATION

Application Comment

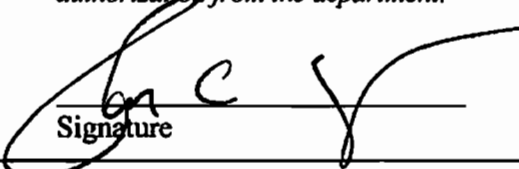
This application is for a minor source air construction permit to install and operate a temporary pollution control system during coal test burns at Stanton Unit 2. OUC proposes to use a dry sorbent injection, hydrated lime, into the exhaust gas duct work to control sulfuric acid mist (H_2SO_4) emissions from the Unit 2 stack. The temporary system which may with be constructed by OUC or rented will consist of a single or double bulk storage vessel/silo (20 to 40 ton capacity) with a dust collector or other comparable control device and variable speed rotary discharge valves, multiple electric blowers, an electric compressor, a reagent scale /load cell system, a data logger and control panel, and various hoses, lances, splitters, and nozzles to distribute the sorbent in the Unit 2 exhaust gas duct work in front of the ESP. A final system has not yet been determined.

The tests are proposed for approximately 11 weeks beginning in late July 2011. OUC requests the permit be valid until December 31, 2011. The existing Unit 2 CEMS will be used to monitor and control emissions within permitted limits.

APPLICATION INFORMATION

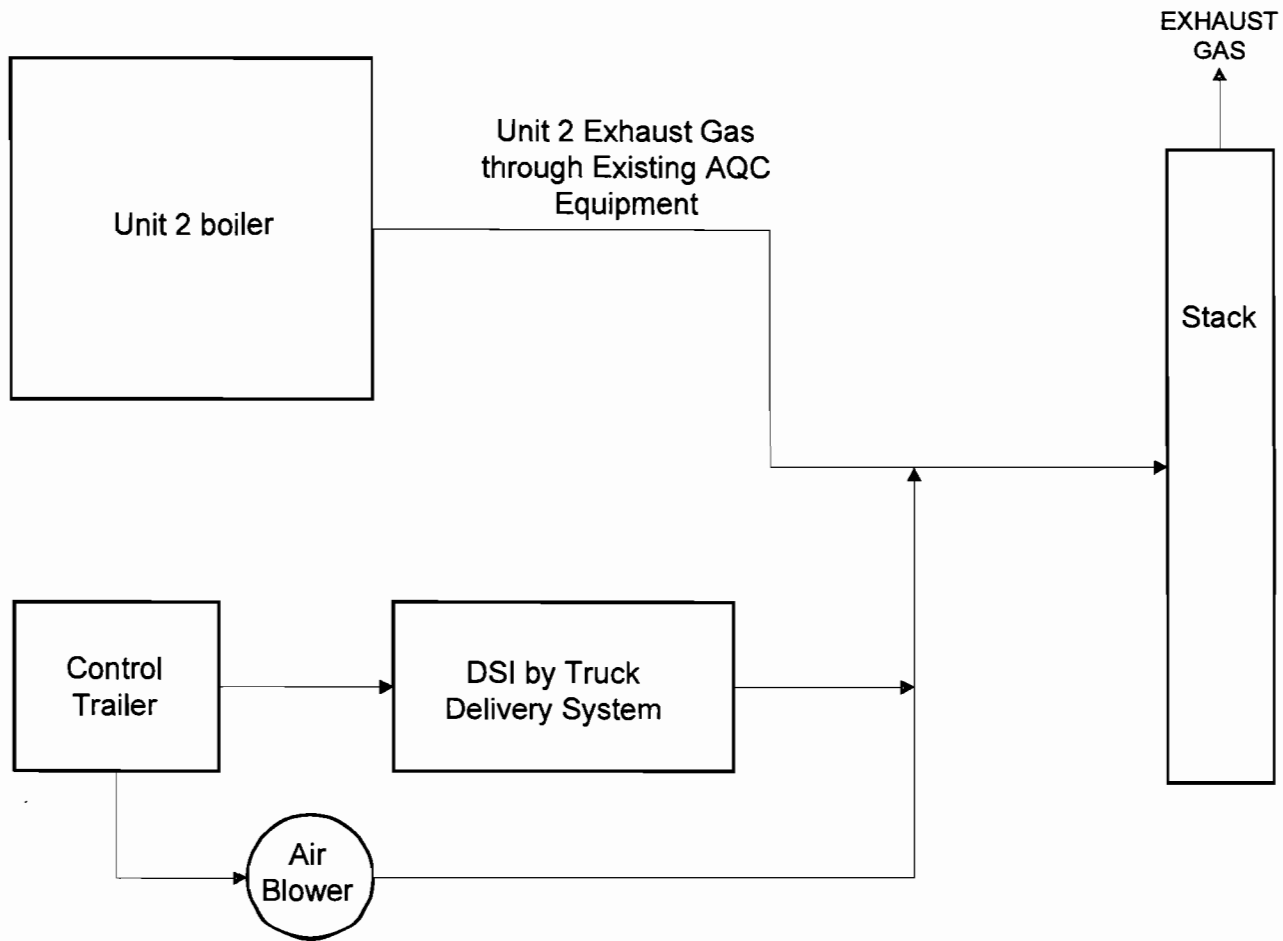
Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name : Jan C. Aspuru, V.P. of Power Resources
2. Owner/Authorized Representative Mailing Address... P.O. Box 3193, Orlando, FL 32802 Organization/Firm: Orlando Utilities Commission Street Address: Reliable Plaza, 100 West Anderson City: Orlando State: FL Zip Code: 32801
3. Owner/Authorized Representative Telephone Numbers... Telephone: (407) 434-3135 ext. Fax: (407) 275 - 4120
4. Owner/Authorized Representative E-mail Address: jaspuru@ouc.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>  Signature _____ Date <u>6/29/11</u>



ATTACHMENT 2

Orlando Utilities Commission
Unit 2 - Temporary Dry Sorbent Injection System
Process Flow Diagram



ATTACHMENT 3

ITEM	DESCRIPTION	QUANTITY	MODEL	SERIAL	PICTURE
1	Dry Bulk Injection Feed Trailer with 480V Electrical Controls including (4) Danfoss VLT2800 and (4) DanFoss Micro Variable Frequency Drives	1	1975	7452555 Plate – West Virginia C114-052	
4	Dry Bulk Injection Blower Trailer	1	2004	5JXCT22234S091876 Plate – West Virginia C176-424	
6	Lechler 9ft 90 Degree Single Nozzle Slurry Lance	2	NA	NA	
7	Lechler 6ft 90 Degree Single Nozzle Slurry Lance	2	NA	NA	
9	Carolina Conveying 8 inch Blow-Through Rotary Valves	4	8 inch Blow-Through	NA	

10	Dresser ROOTS blowers with TEFC Westinghouse 15hp Motors	4	53-URAI	0401971745, 0405976633, 0402972380, 0404975213	
11	WAM Dust Collector	1	FC3J24STPP Filters C003PPB	NA	
12	Pneumatic Hoses (various links w/ couplings)	lot		NA	