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Jacksonville, Florida 32202-3139

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DIVISION OF AIR
RESOURCE MANAGEMENT

November 18, 2011

Mr. Jeff Koerner, P.E. Administrator,
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399



RE: **NORTHSIDE GENERATING STATION/SJRPP
TITLE V PERMIT 0310045-030-AV; PSD, FLA 10
LIMESTONE SILOS - FABRIC FILTERS REMOVAL**

ELECTRIC

Dear Mr. Koerner:

Project No: 0310045-033-AC

WATER

The Title V permit for the combined Northside Generating Station and St. Johns River Power Park (SJRPP) contains a minor emission unit for SJRPP that originally included fabric filters associated with limestone silos for particulate matter (PM) control. These fabric filters are no longer serviceable and not needed for PM control since the transfer points are mostly enclosed and the characteristics of the limestone used in the FGD systems do not generate large quantities of fugitive dust. The fabric filters are identified in Subsection D, Condition D.3, Table 6 as Limestone Silos with Fabric Filters, Emission Unit 0231. We have found that the fabric filters do not provide additional PM control since transfer system is mostly enclosed.

SEWER

Emission calculations reflecting the existing authorized emissions and emissions without the fabric filters are enclosed. The maximum potential PM emissions for the limestone silos without the fabric filters are estimated to be less than 0.05 tons/year, the current authorized emission rate in Table 6 that is attached.

It is requested that the Title V and PSD permits be changed to remove the reference to "fabric filters" in the identification of this emission unit. The current language is Emission Unit 0231, Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01) in the identification of this emission unit. The listed emission rate in Table 6 of Appendix SJRPP does not have a change as estimated emissions without the fabric filters is about the same as that listed in Table 6.

Please call if there are any questions.

Sincerely,

John A. Worley
Director, Environmental Programs

Enclosures



November 18, 2011

1138-7737

Mr. Jay A. Worley,
Director, Environmental Programs
Jacksonville Electric Authority (JEA)
21 West Church Street
Jacksonville, Florida 32202

**RE: NORTHSIDE GENERATING STATION/SJRPP
TITLE V PERMIT 0310045-030-AV; PSD-FL-10
LIMESTONE SILOS - FABRIC FILTERS REMOVAL**

Dear Jay:

This correspondence provides emission calculations to support the removal of the fabric filters originally installed on the limestone silos. These fabric filters are identified as Emission Unit 0231 Limestone Silos with Fabric Filters (1DC-01 and 2DC-01) in the above referenced Title V permit. Currently, there are two transfer points within the limestone preparation building that are serviced by these fabric filters. However, the nature of the limestone and transfer points within the limestone building results in minimum fugitive emissions. SJRPP desires to remove the fabric filters from service since PM can be effectively controlled through the existing enclosed system rendering the fabric filters unnecessary.

Table 1 presents emissions from the limestone silo fabric filters authorized in the current Title V Permit and emission calculations of the limestone silos without the fabric filters using EPA's AP-42 Emission Factors for materials handling and storage operations. The existing emissions for the limestone silos are listed in Table 6 of Appendix SJRPP to the Title V Permit. The authorized emissions are 0.05 lb/hr. The wind speed used in the emission calculation reflects the conveyor belt speed for the limestone loading that was included in the SJRPP PSD Permit Update, Materials Handling and Storage Operations May 3, 1999 that updated Table 6. The limestone moisture content reflects data obtained from SJRPP for 2011. An 80 percent control efficiency was assumed since the limestone loading and unloading is partially enclosed and shielded directly from the wind. The emission calculations without the fabric filters show estimated emission rates of 0.04 lb/hr and 0.04 tons/year for PM that is similar to the authorized emissions in the Title V Permit.

It should be noted that the magnitude of PM emissions in Table 1 is less than that for a generic exemption from permitting pursuant to F.A.C. 62-210.300 (3) (b) F.A.C. and would otherwise be considered an insignificant activity.

Please call me if there are any questions on the information contained herein.

Golder Associates Inc.

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Professional Engineer Certification

I understand and certify that to the best of my knowledge, any emission estimates reported or relied on in this analysis are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions for the emissions units addressed in this analysis, based solely upon the materials, information and calculations submitted with this analysis.

Sincerely,

GOLDER ASSOCIATES INC.



Kennard F. Kosky, P.E.
Principal
Professional Engineer Registration No. 14996

KFK/kfk

Enclosure (Table 1)

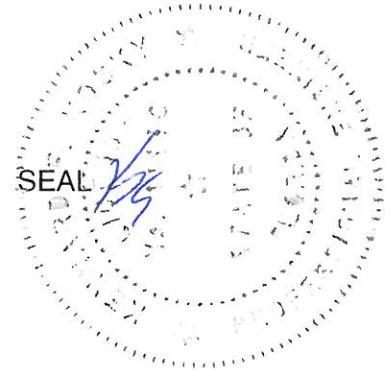


Table 1. SJRPP Limestone Silos PM Emissions

<u>Existing Emissions with Dust Collectors:</u>		<u>PM</u>		
Emissions (lb/hr; Table 6 (Revised) (a))		0.05		
Tons per Silo (b)		600,000		
Limestone Transfer rate (tons/hour) (b)		300		
Hours per Year		2000		
Emissions (tons/year)		0.05		
<u>Batch Drop Equation (c)</u>				
$E = k (0.0032) (U/5)^{1.3} / (M/2)^{1.4}$		<u>PM</u>	<u>PM₁₀</u>	<u>PM_{2.5}</u>
k		0.74	0.35	0.053
U (wind speed; mph) (b)		2.87	2.87	2.87
M (moisture; %) (b)		5.15	5.15	5.15
<u>Emission Calculations w/o Dust Collectors</u>		<u>PM</u>	<u>PM₁₀</u>	<u>PM_{2.5}</u>
Emission Factor (lb/ton)		0.000306	0.000145	2.19E-05
Tons (loading and unloading)		1,200,000	1,200,000	1,200,000
Emissions (lb; uncontrolled)		367.33	173.74	26.31
Control (Enclosed Building)		80%	80%	80%
Emissions (tons/year)		0.04	0.02	0.003
Emissions (lb/hr)		0.04	0.02	0.003

Notes:

(a) Final Title V Permit 0310045-030-AV; Appendix SJRPP; Table 6

(b) SJRPP PSD Permit Update; Materials Handling and Storage Operations, May 3, 1999

(c) USEPA, 2006; AP-42, Section 13.2.4 for Aggregate Handling and Storage Piles.