TECHNICAL EVALUATION

APPLICANT

Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

North County Regional Resource Recovery Facility
Facility ID No. 0990234

PROJECT

Project No. 0990234-026-AC
Exemption from Requirement to Obtain an Air Construction Permit and Authorization
Physical Changes Proposed to Tray Scrubbers and Cyclonic Separators at the Biosolids Pelletization Facility
(Project)

COUNTY

Palm Beach County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

December 2012

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control - General Provisions); 62-210 (Stationary Sources - General Requirements); 62-212 (Stationary Sources - Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources - Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Facility Description and Location

This facility is an existing municipal waste combustor plant categorized under Standard Industrial Classification No. 4953.

The existing North County Regional Resource Recovery Facility is located in Palm Beach County at 7501 North Jog Road in West Palm Beach, Florida. The UTM coordinates are Zone 17; 585.8 km E; 2960.2 km N.

This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- This facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

The applicant requested a case-by-case permitting exemption from an air construction (AC) permit for proposed physical changes to the tray scrubbers and cyclonic separators at the Biosolids Pelletization Facility (BPF).

The Biosolids Pelletization Facility operates under the current valid Title V air operation permit, Permit No. 0990234-022-AV, effective January 24, 2012. The affected emissions units are BPF Sludge Dryer Train #1 (E.U. ID No. 010) and BPF Sludge Dryer Train #2 (E.U. ID No. 011).

The BPF has two sludge drying trains, Dryer Train #1 and #2, and related appurtenances. The sludge dryer trains were manufactured by Baker Rullman Drum Assembly, Model No. SD-125-42. Each dryer train at the BPF combusts landfill gas generated from the nearby landfill and/or natural gas in a rotary drum dryer to dry sewage sludge and then screens the dried sludge into marketable fertilizer pellets.

Dry low NOx burners and acid addition in the tray/condenser scrubber are used to control NOx emissions from each dryer's exhaust. A tray/condenser scrubber and a venturi scrubber are used to control PM emissions from each dryer's exhaust. The BPF uses a regenerative thermal oxidizer (RTO) on each dryer exhaust to control VOC emissions with an efficiency of 98%. The RTO also minimizes odors. VOCs are also combusted in the dryer burners with an estimated efficiency of 98%. CO emissions are controlled by good combustion in the dryer and in the RTO.

Application (Request) Processing Schedule

Request for Exemption from an AC Permit dated and received on December 7, 2012 (complete "application").

Complete details of the proposed project are accessible via the Department's world wide web site at http://appprod.dep.state.fl.us/air/emission/apds/default.asp by entering the project number shown above.

Relevant Documents

- Permit No. 0990234-022-AV, Current Title V Air Operation Permit.

2. DEPARTMENT REVIEW

Additional information from the sludge dryer train manufacturers (Baker-Rullman), scrubber & cyclonic separator manufacturers (SLY, Inc.) and the consultant (CH2M Hill) was submitted with the request.

According to the submitted information from the consultant, CH2M Hill, there are no expected significant, quantifiable, changes to air pollutant emissions from the proposed project (see the conclusion in the CH2M Hill memo dated 11/20/2012).

The tray scrubbers are air pollution control devices (APCDs). As the applicant's consultant indicated, the CAM Plan does need to be changed in the Title V permit because now the BPF will rely upon the venturi and tray scrubbers for PM control to meet the PM emission limit. The BPF had not relied upon the venturi scrubbers in the initial Title V permit application; only the tray scrubbers were affected and included in the initial CAM Plan. The applicant will need to include the venturi scrubbers in the CAM Plan.

3. DETERMINATION

Pursuant to Rule 62-4.040(1)(b) , F.A.C. and for the reasons stated in this Technical Evaluation, the Office of Permitting and Compliance hereby determines that the proposed activity (project) will not emit air pollutants "*... in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified.*" Therefore, the project is exempt from the requirement to obtain an AC permit. The applicant is authorized to conduct this activity.

This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. A copy of this letter shall be maintained at the site of the proposed activity. This permitting decision is made pursuant to Chapter 403, Florida Statutes.

Mr. Scott M. Sheplak, P.E. is the permit processor responsible for reviewing the request and drafting the exemption. Additional details of this analysis may be obtained by contacting him by telephone at 850/717-9074 or by e-mail at scott.sheplak@dep.state.fl.us in the Department's Office of Permitting and Compliance at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.