TECHNICAL EVALUATION

APPLICANT

Duke Energy Florida, Inc.
1601 Weedon Island Drive NE
St. Petersburg, Florida 33702

P. L. Bartow Power Plant
Facility ID No. 1030011

PROJECT

Project No. 1030011-018-AC
Exemption from Requirement to Obtain an Air Construction Permit and Authorization

Conversion of Two No. 6 Fuel Oil Storage Tanks to hold Industrial Wastewater
(Project)

COUNTY

Pinellas 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

November 2013

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 power plant categorized under Standard Industrial Classification No. 4911.

The existing P. L. Bartow Power Plant is located in Pinellas County at 1601 Weedon Island Drive, St. Petersburg, Florida. The UTM coordinates are Zone 17, 343.87 km East and 3,082.69 km North; Latitude: 27° 51’ 41” North and Longitude: 82° 36’ 6” West.

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 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 (also referred to as a “Rule 62-4.040(1)(b), F.A.C. exemption”) for a one-time activity which involves converting and repurposing two (2) former No. 6 fuel oil storage tanks to hold industrial wastewater (project). These tanks will be "gritblasted" followed by an application of a two-part epoxy material.

This proposed project is scheduled to occur at the P. L. Bartow Power Plant in early 2014.

The P. L. Bartow Power Plant operates under the current valid Title V air operation permit, Permit No. 1030011-016-AV, which was effective January 1, 2010. The No. 6 fuel oil storage tanks are currently listed in the Appendix U, List of Unregulated Emissions Units and/or Activities of the permit. Insignificant activities/emission units at the P. L. Bartow Power Plant not specifically listed in Appendix I, List of Insignificant Emissions Units and/or Activities are covered under Rule 62-213.430(6)(b), F.A.C. The repurposed tanks will likely be insignificant activities.

Application (Request) Processing Schedule

Request for Exemption from an Air Constitution (AC) Permit and Authorization dated November 18, 2013, received via email on November 19, 2013 (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. 1030011-016-AV, Current Title V Air Operation Permit.
- Permit No. 1030011-016-AV - Appendix U, List of Unregulated Emissions Units and/or Activities E.U. ID No. 021, No. 6 Fuel Oil Storage Tanks.
- Permit No. 1030011-016-AV - Appendix I, List of Insignificant Emissions Units and/or Activities.

2. DEPARTMENT REVIEW

The applicant's November 19, 2013 submission (letter with attachments) describes the details of the proposed project.

Converting and repurposing the two (2) former No. 6 fuel oil storage tanks to hold industrial wastewater (project) involves physical work and change air pollutant emissions. The proposed work will involve the "gritblasting" of the former No. 6 fuel oil storage tanks followed by an application of a two-part epoxy material to the tanks. The No. 6 fuel oil storage tanks are enclosed tanks. While "gritblasting" in the tanks emissions will be routed via ductwork to a tractor trailer sized Cyclone 40DC unit[1]. When the two-part epoxy material is being applied inside the tanks the applicant indicated that emissions will be drawn out of the tank by an induced fan then vented to the atmosphere.

The proposed project is a one-time activity and is scheduled to occur at the P. L. Bartow Power Plant in early 2014.

After the No. 6 fuel oil storage tanks are repurposed, volatile organic compound (VOC) and/or hazardous air pollutant (HAP) emissions from the tank operations with No. 6 fuel oil will no longer occur. Air pollutant emissions from the one-time activity of "gritblasting" of the No. 6 fuel oil storage tanks may include fugitive dust or unconfined emissions of particulate matter (PM). Air pollutant emissions from the one-time activity of the application of the two-part epoxy material to the tanks may include VOCs and/or HAPs which are potential sources of odors. Quantification of emissions were provided in the applicant's request. The one-time PM emissions were estimated to be 0.35 tons. One-time VOC emissions were estimated to be 3.8 tons. Total one-time HAP emissions were estimated to be 4,392 pounds (lbs). The highest individual one-time HAP emission was estimated to be 1,620 lbs.

When emissions from a proposed project are considered to be below those threshold levels in Rule 62-210.300(b)1., F.A.C., the activity automatically qualifies as being categorically exempt from an AC permit by this Department rule. Note, the threshold levels in Rule 62-210.300(b)1., F.A.C. for exemption from an AC permit are the same as the insignificance threshold levels in Rule 62-213.430(6)(b), F.A.C.

As indicated by the applicant, PM and VOC emissions from the proposed project are below the threshold levels contained in Rule 62-210.300(b)1., F.A.C.; the threshold level for PM and VOC emissions is 5 tons per year (TPY). The one-time emissions of total HAPs and the highest individual HAP are greater than the threshold levels contained in Rule 62-210.300(b)1., F.A.C., which are 2,500 lbs per year and 1,000 lbs per year, respectively. Note, however as the applicant indicated the proposed project (activity) is a one-time activity, not a recurring activity.

The proposed project does not appear to be subject to any unit-specific applicable requirement. Therefore, no revision to the Title V air operation permit is required; the applicant's notification was only required. The applicant will be required to address and include the new proposed project in the next Title V air operation permit application where appropriate.

In conclusion, review of applicant's submission indicates that PM and VOC emissions are below the cited threshold levels automatically qualifying the proposed project (activity) as being categorically exempt from an AC permit by Department rule. However, total HAPs and the highest individual HAP are greater than the threshold levels which would also automatically qualify the proposed project (activity) as being categorically exempt from an AC permit. The threshold levels contained in the Department's categorical exemption rule from an AC permit are annualized

emissions, i.e., tons per ***year {emphasis added}***, lbs per ***year {emphasis added}***. It is important to note that the proposed project (activity) is a one-time activity planned to occur in early 2014 only, not a recurring activity. Even if a minor source AC permit where to be required for this one-time activity, it is likely that only the Department's general rules would apply, e.g., no objectionable odors, visible emissions (VE) less than 20% opacity from unconfined emissions of PM. Therefore, a minor source AC permit for this unique one-time activity, short in duration does not seem to be reasonably justified. Under Rule 62-4.040(1)(b), F.A.C. the Department can deem the emissions of total HAPs and the highest individual HAP from the proposed project to be exempt from a minor source AC permit. This would result in all of the project emissions to be exempt from a minor source AC permit. Exempt activities still must comply with the Department's general rules. The applicant has agreed to and is amenable to the general rules being specifically contained in the exemption/authorization.

Based on the information provided in the applicant's November 18, 2013 submission and the Department's review, the proposed work (project) is deemed to be exempt from an AC permit.

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.

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.

References

[1] EnTech Industries, LLC. World Wide Website: http://www.entechindustries.com/entechindustries/40dc.htm. Accessed on 11/21/2013.