Initial Title V Air Operation Permit
Permit No. 0510033-008-AV

APPLICANT

The applicant for this project is H&H Liquid Sludge Disposal, Inc. The applicant's responsible official and mailing address are: Mr. Rick Hacht, President, H&H Liquid Sludge Disposal, Inc., 6990 US Hwy 27, Branford, Florida, 32008.

FACILITY DESCRIPTION

The applicant operates the H&H Clewiston Facility, which is located at 3013 Evercane Road, Hendry County, Clewiston, Florida, 33400. The Facility is a liquid refuse sludge disposal system consisting of one (1) Sludge Dryer, two (2) propane/diesel burners (heaters), one (1) conditioner, two (2) engine driven mixers, one (1) metering screw, one(1) collection hopper, two (2) cyclones, one(1) inclined screw conveyor, four (4) transfer screw conveyors and one(1) 18,000 gal. diesel storage tank. All components are located outdoors.

Note: The mixers are driven by a power takeoff from the road certified, wheeled tractors. The tractors operate in a fixed (stationary) position while driving the mixers. The mixers are mobile, however are operated as fixed (stationary) units when connected to load into a collection hopper that feeds the dryer. The tractor engine power sources are considered as "insignificant emission" sources. The mixers are subject to the facility-wide visual emissions standard (20%VE), and also are included in the sum of the fugitive emissions for the facility. The tractor engines are NOT subject to the opacity rules, but can be included in the sum of the facility-wide fugitive emissions when required.

The facility is designed to receive 920 tons/day of biologically stabilized Class B municipal wastewater sludge operating continuously 24 hours/day. (The sludge is typically processed by the municipal wastewater utilities in anaerobic digesters, chemically conditioned with cationic polymers, dewatered in centrifuges, loaded into containers and trucked to the H & H facility.

The process includes receiving municipal liquid refuse waste sludge to a mixer, then flow to a metering screw, to a collection hopper, and gravity dump into an M2 Dryer. Flow from the dryer to a conditioner unit, then to mechanical screw conveyors to truck loading or portable tote bins. The dryer (20 mmbtu/hr) is rated at 10 tons/hr. and utilizes two (2) heaters which are primarily fueled by diesel with the option of using propane.

Annual production is 177,840 tons. Annual fuel usage is approximately 1.165 Million gallons. Fines (light particulate matter) is vented from the sludge dryer to two (2) high efficiency cyclones that drop the "fines" into mechanical screw conveyors that load portable tote bins for off-site processing or disposal. Dried final product from the sludge dryer and conditioner is stored in static piles on the ground. A front-end loader loads open container trucks to distribute the class AA Biosolids to volume users. (The fugitive emissions from tote and truck loading are 10 tons of particulate matter (PM) per year). The cyclones provide approximately 85% capture. Particulates are less than 2% in exhaust. (Exhaust contains 2% Hg, or less than 0.2 lb/day). (Mercury (H114), Allowable emissions not to exceed 3,200 grams/24 hrs. or 7.05 lbs/24hrs. (Reference 40 CFR 61.52). There are no fugitive emissions at the dryer and fugitive emissions for the process facility do not exist or are insignificant, however facility-wide, the truck loading could be 5.0 tons/year, and tote bin loading could be 5 ton/year, thus giving a facility wide (PM) fugitive emissions of 10 ton/year.

Cyclones provide 85% efficiency of control, and all components are located outdoors. Emissions include Particulate Matter (PM) at 39 ton/yr., Sulfur Dioxide (SO2) at 0.069 Tons/year, Mercury (H114) at 0.935 tons/year, Volatile Organic Compounds (VOC) at 62.9 tons/year and Carbon Monoxide (CO) capped to not exceed 219 tons/year. The design production rate of the facility is 150 tons/day.

This project is defined as a NESHAP classification and a Title V classification due to hazardous mercury (0.9328 tons/year) contained in the source emissions. The facility is subject to National Emission Standards for Mercury, 40 CFR Part 61, Subpart E and New Source Performance Standards, (NSPS), 40 CFR Part 60, Subpart Kb.

The facility uses 20 mmbtu/hr burners that operate on diesel fuel at appx.133 gal/hr.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is for an initial Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Construction Permit No. o510033-001-AC was issued on August 13, 2010
Application for Initial Title V Operating permit was received on December 7, 2012.

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

PROJECT REVIEW

The Facility is a liquid refuse sludge disposal system consisting of one (1) Sludge Dryer, two (2) propane/diesel burners (heaters), one (1) conditioner, two (2) engine driven mixers, one (1) metering screw, one(1) collection hopper, two (2) cyclones, one(1) inclined screw conveyor, four (4) transfer screw conveyors and one(1) 18,000 gal. diesel storage tank. All components are located outdoors.

This permit incorporates the provisions of permit No. 0510033-001-AC, which authorized the construction of the facility.

CONCLUSION

This project is for the initial Title V air operation permit. This initial Title V air operation permit is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.