STATEMENT OF BASIS

City of Jacksonville
JEA
Buckman Street Waste Water Treatment Plant
Facility ID No.: 0310166
Duval County

Renewal Title V Air Operation Permit
PROPOSED Permit No.: 0310166-010-AV

This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (FS), and Florida Administrative Code (FAC), Chapters 62-4, 62-210, and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The facility is a municipal wastewater treatment plant with a maximum wastewater treatment capacity of 52.5 million gallons per day. Raw waste water from the sanitary sewer collection system is junctioned to an influent pump station, from which it enters the waste water treatment train consisting of the following major process units; Aerated Grit Chamber, Preaeration Basin, Primary Clarifiers, Aeration Basins, Secondary Clarifiers, and the Chlorination and Sulfur Dioxide Contact Chambers. Treated effluent is discharged to the St. Johns River. Odorous gases from the Aerated Grit Chamber and the Preaeration Basin are collected and treated in the Odor Control System No. 3. Odorous gases from the influent junction box, wet well and pump station prior to the Aerated Grit Chamber are collected and treated in Odor Control System No. 1. Odorous gases from the sludge tanks are collected and treated in Odor Control System No. 2.

A sludge drying system has replaced the two existing sludge incinerators which have been shutdown. The sludge drying system is equipped with a venturi scrubber followed in series by a regenerative thermal oxidizer for the control of air pollutant emissions. Particulate matter emissions generated by the handling of dry sludge pellets (generated by the sludge dryer) are controlled by a Flex-Kleen baghouse dust collector which is either vented to the regenerative thermal oxidizer (RTO) or through the gravity belt thickener odor control system to the atmosphere as an alternate operating scenario. Portions of the air flow from the baghouse may be vented to both the RTO and the odor control system simultaneously depending on operational needs. Two new anaerobic digesters have been installed for wastewater treatment and the production of bio-gas. Two hot water boilers have been installed to produce hot water and heat for the bio-solids treatment process. Two existing sludge holding tanks continue to operate as raw sludge holding tanks. One existing sludge holding tank has been equipped with a membrane cover to provide low pressure digester gas storage. An internal combustion engine generator has been installed to generate electricity. A flare has been installed to combust bio-gas as a back-up to the sludge drum dryer. The sludge drum dryer, two hot water boilers, and internal combustion engine generator are each capable of firing either natural gas, digester gas, or a blend of both gases. Air pollution sources include the following: sludge drum dryer, product storage and truck loading operation, two hot water boilers, digester gas flare (back-up), and internal combustion engine. The permittee is also authorized to construct a third hot water boiler (EU No. 014) during the term of permit no. 0310166-009-AC. The bio-solids process shall emit the air pollutants particulate matter, particulate matter equal to or less than 10 microns in aerodynamic diameter, volatile organic compounds, oxides of nitrogen, carbon monoxide, and sulfur dioxide.

Regulated emission units are as follows:

E.U. ID No.	**Brief Description**	**Emissions Control Device**
003	Odor Control System No. 1	Bio-filter
004	Odor Control System No. 2	Bio-filter
006	Odor Control System No. 3	Bio-filter
007	Sludge Drum Dryer system	Scrubber, Regenerative Thermal Oxidizer, Pellet Handling Baghouse
010	Truck Loading Operation No. 1	Common Baghouse with EU 017
011	Truck Loading Operation No. 2	Common Baghouse with EU 017
013	Boiler No. 2	None
014	Boiler No. 3	None
015	Caterpillar Internal Combustion Engine with Generator	None
016	Open Air Flare	None
017	Dry Sludge Silo Nos. 1 and 2	Common Baghouse

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

Based upon the initial Title V permit application received on June 14, 1996, and the Title V air

operation permit renewal application received on June 15, 2004 this facility is not a major source of hazardous air pollutants (HAPs).