22 December 2015

Julia A. Forgue, PE
Director of Utilities
City of Newport- Department of Utilities
70 Halsey Street
Newport, RI 02840

Dear Ms. Forge:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your request for a minor source permit for air pollution control equipment at the City of Newport Wastewater Treatment Facility at 250 Connell Highway in Newport, Rhode Island.

Enclosed are permit conditions and emission limitations for the minor source permit (Approval No. 2300).

Should you have any questions concerning this permit, I can be reached at (401) 222-2808, extension 7177, or by email at *kasandra.mckenzie@dem.ri.gov*.

Sincerely,

Kasandra McKenzie, EIT
Air Quality Specialist
Office of Air Resources

cc: Town of Newport Building Official
Steven Lambalot, Newport WWTF

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

City of Newport - Department of Utilities

APPROVAL NO. 2300

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

City of Newport- Department of Utilities

For the following:

Installation of a Carbtrol Corporation, Model No. G-3B1000, carbon adsorption system with two, 140 pound canisters of Carbtrol CAT2 Vapor Phase Catalytic Carbon to control hydrogen sulfide emissions from a dewatering belt press operation at the City of Newport Wastewater Treatment Facility.

Located At: *250 Connell Highway, Newport, RI*

WWTF- Solids Handling Building

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *the City of Newport - Department of Utilities* **from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.**

Douglas L. McVay, Chief
Office of Air Resources

Date of issuance

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

Permit Conditions and Emission Limitations

CITY OF NEWPORT - DEPARTMENT OF UTILITIES

APPROVAL NO. 2300

A. Emission Limitations

1. Hydrogen Sulfide (H_2S)

   a. The total quantity of hydrogen sulfide (H_2S) emissions discharged to the atmosphere from the dewatering belt press shall not exceed 10 pounds during any consecutive 12 month period.

   b. The carbon adsorption system shall reduce emissions of H_2S by at least 95%.

2. Odors

   Any air contaminant or combination of air contaminants discharged to the atmosphere from the facility shall not create an objectionable odor beyond the property line of this facility. Odor evaluations shall be conducted according to the provisions of Air Pollution Control Regulation No. 17.

B. Operating Requirements:

1. All H_2S emissions generated from the dewatering belt press shall be captured, contained and routed to the carbon adsorption system for treatment prior to discharge to the atmosphere.

2. The carbon adsorption system shall be operated according to its design specifications at all times.

3. The total air flow discharged to the carbon adsorption system shall not exceed 1000 cfm, the maximum loading capacity of the system.

4. The activated carbon adsorption system shall consist of two carbon adsorbers containing 140 pounds each of activated carbon installed in series. The blower system shall not be operated unless the carbon canisters are in operation.

5. The primary canister shall be monitored for breakthrough and replaced if breakthrough is detected. For purposes of this permit, breakthrough shall be

defined when the H_2S concentration of the gases exiting the primary carbon canister exceeds 10% of the inlet H_2S concentration. When breakthrough is detected the owner/operator shall not operate the dewatering belt press until the primary canister is replaced. The primary canister shall be removed from service when breakthrough occurs. The owner/operator shall replace the primary canister with the secondary canister and replace the secondary canister with a new carbon adsorber canister containing fresh activated carbon.

6. There shall be no bypassing of the carbon adsorption system during operation of the dewatering belt press.

C. Monitoring

1. Pressure drop across the carbon adsorption system shall be monitored continuously. Pressure drop across the carbon adsorption system shall not to exceed 3 inches water column.

2. Test ports shall be provided to allow for the sampling of the inlet and outlet gases of the carbon adsorption system.

3. The H_2S concentration at the inlet and outlet of the carbon adsorption system shall be measured and recorded once per week while the system is operating.

4. The analyzer used to measure the inlet and outlet concentrations of H_2S shall be calibrated according to the manufacturer's recommendations.

D. Record Keeping and Reporting

1. The owner/operator shall collect, record and maintain the following information each month for the carbon adsorption system:

   a. Records indicating the replacement date(s) of the carbon canister; and

   b. All monitoring equipment calibration records; and

   c. A maintenance log for the carbon adsorption system detailing all routine and non-routine maintenance performed including dates and duration of any outages.

2. The owner/operator shall collect, record, and maintain the measured inlet and outlet concentration of H_2S from the carbon adsorption system on a weekly basis.

3. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of H_2S discharged to the atmosphere for the previous 12 month period. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

4. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of the determination, whenever the total quantity of H_2S discharged to the atmosphere from the carbon adsorption system during the previous 12 month period exceeds 10 pounds.

5. The owner/operator shall notify the Office of Air Resources in writing of the date of actual start-up of the carbon adsorption system no later than 15 days after such date.

6. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.

7. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment that would:

   a. Change the representation of the facility in the permit application.

   b. Alter the applicability of any state or federal air pollution rules or regulations.

   c. Result in the violation of any terms or conditions of the permit.

   d. Qualify as a modification under APC Regulation No. 9.

   Such notification shall include:

   - Information describing the nature of the change.

   - Information describing the effect of the change on the emission of any air contaminant.

   - The scheduled completion date of the planned change.

   Any change, which may result in an increased emission rate of any air contaminant, shall be subject to the approval of the Director.

8. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:

   a. The name and location of the facility;

   b. The subject source(s) that caused the noncompliance with the permit term;

   c. The time and date of first observation of the incident of noncompliance;

d. The cause and expected duration of the incident of noncompliance;

e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate;

f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

9. All records required as a condition of this approval shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

E. Malfunctions

1. The owner/operator may seek to establish that a malfunction of any air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the owner/operator must demonstrate to the Office of Air Resources that:

a. The malfunction was not attributable to improperly designed equipment, lack of preventative maintenance, careless or improper operation or operator error;

b. The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance;

c. Repairs were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable.

d. All possible steps were taken to minimize emissions during the period of time that repairs were performed.

e. Emissions during the period of time that the repairs were performed will not:

(1) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and

(2) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.

f. The reasons that it would be impossible or impractical to cease the source operation during said period.

g. The owner/operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The owner/operator shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

F. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the installation of the air pollution control equipment shall be designed, constructed and operated in accordance with the representation of the facility in the permit application.

2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the carbon adsorption system in a manner consistent with good air pollution control practice for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this permit have been achieved. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the carbon adsorption system.