

11 July 2014

Mr. Andrew T. Carey, Partner  
Jefferson Hospitality, LLC  
1402-A Richmond Road  
Williamsburg, VA 23185

Dear Mr. Carey:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of air pollution control equipment located in the parking lot for the Hilton Garden Inn, 1 Thurber Street, Warwick, RI.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval Nos. 2256-2257).

If there are any questions concerning this permit, please contact me at 222-2808, extension 7177 or at [kasandra.mckenzie@dem.ri.gov](mailto:kasandra.mckenzie@dem.ri.gov).

Sincerely,

Kasandra McKenzie, EIT  
Air Quality Specialist  
Office of Air Resources

cc: Warwick Building Official  
Brian E. Kortz - Fuss & O'Neill  
Jeffery Crawford - DEM

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

MINOR SOURCE PERMIT

*JEFFERSON HOSPITALITY, LLC*

APPROVAL NOs. 2256-2257

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

*Jefferson Hospitality, LLC*

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For the following:

*VOC emissions generated from a soil vapor extraction (SVE) system (Approval No. 2256) are to be treated by an activated carbon adsorption system (Approval No. 2257) prior to discharge to the atmosphere. This installation is normally unmanned.*

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Located at: *The parking lot for the Hilton Garden Inn, 1 Thurber Street, Warwick, RI*

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**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 *Jefferson Hospitality, LLC* 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.**

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Douglas L. McVay, Chief  
Office of Air Resources

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Date of issuance

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

Permit Conditions and Emission Limitations

**JEFFERSON HOSPITALITY, LLC**

Approval Nos. 2256-2257

A. Emission Limitations

1. Tetrachloroethylene (PCE)

- a. The total quantity of PCE emissions discharged to the atmosphere from the carbon adsorption system shall not exceed 2.2 pounds per hour.
- b. The total quantity of PCE emissions discharged to the atmosphere from the carbon adsorption system shall not exceed 389 pounds in any consecutive 12-month period.

2. Trichloroethylene (TCE)

- a. The total quantity of TCE emissions discharged to the atmosphere from the carbon adsorption system shall not exceed 22.2 pounds per hour.
- b. The total quantity of TCE emissions discharged to the atmosphere from the carbon adsorption system shall not exceed 44.5 pounds per day.
- c. The total quantity of TCE emissions discharged to the atmosphere from the carbon adsorption system shall not exceed 974 pounds in any consecutive 12-month period.

3. The system shall be operated with no visible emissions.

4. 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 emissions generated from the soil vapor extraction system shall be captured, contained and routed to the activated carbon adsorption system for treatment prior to discharge to the atmosphere.

2. The activated carbon adsorption system shall consist of four carbon adsorbers installed in two parallel trains. Each train shall consist of two carbon adsorbers installed in series. The blower system shall not be operated unless both activated carbon trains are in operation.
3. The primary canister in each activated carbon adsorption train shall be monitored for breakthrough and replaced if breakthrough is detected. For purposes of this permit, breakthrough shall be defined when the VOC concentration of the gases exiting the primary carbon canister(s) exceeds 10% of the inlet VOC concentration. When breakthrough is detected the owner/operator shall not operate the soil vapor extraction system and treatment system until the primary canister is replaced. The primary canister of each activated carbon train 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.
4. The controls for the SVE system shall be capable of providing electronic notification of system faults and the system shall shut down in the event of a system fault which would result in noncompliance with any of the terms of this permit or any other applicable air pollution control regulation. Such faults may include, but not be limited to:
  - a. Sudden pressure change
  - b. Water intrusion into the system causing a high-level fault in the moisture knock-out tank
  - c. Unanticipated shutoff of the blower

#### C. Monitoring Requirements

1. Pressure drop across each carbon adsorption bed shall be monitored continuously. Pressure drop across each carbon adsorption bed shall not exceed 3 inches water column.
2. A continuous photoionization detector (PID) shall be installed in the exhaust from the first parallel set of carbon adsorbers. The PID shall be operated and maintained according to manufacturer's recommendations.
3. Test ports shall be provided to allow for the sampling of the inlet and outlet gases of each carbon adsorption system train.
4. The VOC concentration at the inlet and outlet of the primary canister of each carbon adsorption system train shall be measured and recorded weekly for the first month following startup, monthly for the next six months, and at least quarterly thereafter.

5. The analyzer used to measure the inlet and outlet VOC concentrations shall be calibrated according to manufacturer's recommendations.
6. Routine monitoring of the system including visual observation of the system, records of all gauge measurements related to flow, and an observation of the alarm panel, shall be conducted weekly for the first month and then monthly for six months following startup, and at least quarterly thereafter.

D. Recordkeeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of PCE and TCE discharged to the atmosphere from the carbon adsorption system. Hourly emissions averages shall be calculated for each pollutant. Daily emission averages shall be calculated for PCE and TCE. These averages shall be used for comparison to emission limitations. Monthly and 12-month rolling averages shall be calculated for each pollutant. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
2. The owner/operator shall notify the Office of Air Resources, in writing, within 15 days of the determination, whenever the total quantity of PCE discharged to the atmosphere from the carbon adsorption system exceeds 2.2 lbs per hour or 389 lbs in any consecutive 12-month period.
3. The owner/operator shall notify the Office of Air Resources, in writing, within 15 days of the determination, whenever the total quantity of TCE discharged to the atmosphere from the carbon adsorption system exceeds 22.2 lbs per hour, 44.5 lbs per day, or 974 lbs in any consecutive 12-month period.
7. The owner/operator shall collect, record and maintain the measured inlet and outlet VOC concentrations from the primary carbon canister of each carbon adsorption system train weekly for the first month following startup, monthly for the next six months, and at least quarterly thereafter.
5. VOC emissions, as measured by the PID, shall be checked a minimum of twice per day. The date, time, and measurement shall be recorded.
6. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual initial start-up of carbon adsorption system no later than fifteen (15) days after such date.
7. The owner/operator shall collect, record and maintain the following information each month:
  - a. Carbon replacement activities, specifically documenting the date of carbon change, the mass of carbon changed, which vessels have been changed, and the duration of shutdown during replacement.

- b. A maintenance log for the carbon adsorption system detailing all routine and non-routine maintenance performed including dates and duration of any outages.
8. The owner/operator shall maintain records of all inspection data from the monitoring conducted pursuant to condition C.6. Such records shall include:
  - a. The date, place and time of the inspection;
  - b. Person conducting the inspection;
  - c. Technique or method used;
  - d. Operating conditions during the inspection, including any faults or alarms observed;
  - e. Results of the inspection; and
  - f. Any maintenance action taken.
9. The owner/operator shall submit a quarterly report to the RIDEM Office of Air Resources and the Office of Waste Management. The report shall include the following:
  - a. Periodic estimation of VOC removed from the subsurface;
  - b. Total emissions from the system;
  - c. Results of the periodic VOC concentration testing required under Condition C.4 of this permit;
  - d. Estimates of TCE and PCE emissions in pound per hour and pound per year for both TCE and PCE, and in pound per day for TCE;
  - e. Estimates of the adsorber's removal efficiency; and,
  - f. All equations and assumptions used.
10. 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.
11. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within thirty (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 the 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, lbs/day or lbs/year) 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.
12. The Office of Air Resources shall be notified, in writing, of any planned physical or operational change to the carbon adsorber or the equipment vented to the carbon adsorber that would:
- a. Change the representation of the facility in the permit.
  - 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 such a change shall be consistent with the appropriate regulation and have the prior approval of the Director.

13. All records required in this permit shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request. Records may be maintain and stored offsite at Fuss & O'Neill's Providence location.

E. Other Permit Conditions

1. To the extent consistent with the requirements of this approval 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 installation in the permit application.

2. There shall be no bypassing of the air pollution control equipment at any time.
3. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the site 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 to be maintained by the Office of Air Resources.
4. The emission and dispersion characteristics of all sources of listed toxic air contaminants at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions of each listed toxic air contaminant does not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may reopen this minor source permit if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to this permit to ensure compliance with Air Pollution Control Regulation No. 22.
5. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the system in a manner consistent with good air pollution control practice for minimizing emissions. 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, review of operating and maintenance procedures and inspection of the source.
6. During system construction, soil stockpiles will remain covered and appropriately wetted to limit nuisance dust and fugitive emissions.

#### **G. 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 and 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.