

October 29, 2002

## **GUIDANCE DOCUMENT REGARDING INSTALLATION/USE OF EVAPORATORS**

The Connecticut DEP has developed a multi-bureau policy regarding the use of evaporators. The intention of this policy is to guide DEP staff in the regulation of evaporators and streamline the regulatory process to make it less time-consuming and burdensome for business, while still being protective of the environment and public health. While the Department was reviewing existing state and Federal Air, Water and Waste permitting regulations, it became apparent in developing this policy that a facility does not need required permits from the Bureaus of Air, Water and Waste Management if the evaporator meets the definition of a “totally enclosed treatment facility”. This definition is described in Paragraph (3) below under the section labeled as “Waste”. However, for the purposes of this document, the definition of a “totally enclosed treatment facility” as specified in Paragraph (3) below shall be applied to facilities, which treat hazardous or non-hazardous wastes. It should be noted that this document is not a substitute for the relevant regulations and may not accurately address all situations

The important thing to be aware of is that the requirements for evaporators are dependent upon each individual situation in which they are used. Before discussing various examples and associated permitting recommendations, please note the following important facts regarding each Bureau’s relevant regulations:

### Waste

- (1) A hazardous waste determination of wastewater needs to be made immediately prior to its introduction into the evaporator system, pursuant to 40CFR 262.11. Additionally, all results/concentrates removed from evaporators are also subject to hazardous waste determinations and appropriate management.
- (2) Evaporator systems receiving wastewaters determined to be non-hazardous are excluded from RCRA regulations.
- (3) An evaporator system which receives hazardous waste, but which meets the definition of a “totally enclosed treatment facility”, pursuant to 40CFR 260.10, would be exempt from RCRA permitting pursuant to 40CFR 270.1(c)(2)(iv). A totally enclosed treatment facility is defined as a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner, which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. EPA interprets this definition very conservatively, so that an acceptable facility would need to capture and recycle all vapor emissions, even if they are shown to be only water vapor.

- (4) A facility which uses an evaporator for hazardous wastes, as part of a wastewater treatment facility having a wastewater discharge permit issued under 22a-430 of the Connecticut General Statutes, is exempt from RCRA permitting pursuant to 40CFR 270.1(c)(2)(v) and 260.10.
- (5) A facility which uses an evaporator to concentrate a hazardous waste prior to recycling or reclaiming that waste, or sending it off-site for reclamation, is subject to the requirements specified in RSCA 22a-449(c)-101(c) [Recyclable Materials], and may not require RCRA permitting. These situations must be evaluated on a case-by-case basis.
- (6) For facilities which treat its wastewaters prior to an evaporator:
  - a) Elementary neutralization (pH adjustment) of hazardous wastes is exempt from RCRA permitting pursuant to 40CFR 280.1(c)(2)(v) and 260.10.
  - b) Any other method of treatment for hazardous wastes will require a RCRA permit unless a wastewater discharge permit exemption is maintained pursuant to 40CFR(c)(2)(v) and 260.10.

#### AIR

- (1) If an evaporator is installed which meets the definition of a “totally enclosed” system, a facility does not need to apply for an Air Permit under sections 22a-174-3 and 22a-174-29 of the Regulations for Connecticut State Agencies.

#### WATER

- (1) No facility shall initiate, originate or maintain any discharge of water, substance or material into the waters of the state without a permit for such discharge (includes: hauling wastewater to a publicly owned treatment works or POTW) issued by the Commissioner of DEP in accordance with Section 22a-430 of the Connecticut General Statutes (C.G.S.).
- (2) A facility, which intends to install an evaporator system, shall be required to obtain an approval of said system from the DEP/Water Management Bureau in accordance with Section 22a-424 of the C.G.S.

Examples describe below are divided into two categories; evaporator systems which meet the definition of a “totally enclosed” system and those evaporator systems which do not. Recommendations/comments for handling each example are discussed below.

## EVAPORATORS – TOTALLY ENCLOSED

I.

1. A facility does not have an active wastewater discharge. In case of evaporator malfunction, wastewater is hauled away in a manner acceptable to the Commissioner or a collection tank is installed to store wastewater until the evaporator is operational.

### Recommendations/Comments:

- i. Determine whether the wastewater discharge immediately prior to the introduction into the evaporator is characterized as hazardous waste.
  - ii. Submit plans, specifications, operation & maintenance information on the evaporator system for the Commissioner's review and approval to the DEP Bureau of Water Management.
  - iii. The evaporator is exempt from RCRA and Air permitting requirements.
  - iv. If the wastewater is characterized as non-hazardous (RCRA permitting requirements do not apply; however, if a facility treats its wastewater prior to an evaporator; see section Waste paragraph [6] ):
    - a) Submit non-hazardous waste certification form to the DEP Bureaus of Water and Waste Management.
    - b) A wastewater discharge permit is not required if the wastewater is hauled to a receiving facility, which is permitted to accept such wastes, or is stored on-site in a collection tank until the evaporator is operational.
    - c) A wastewater discharge permit is required, if the wastewater is hauled to a Publicly Owned Treatment Works or "POTW".
  - v. If the wastewater is characterized as hazardous:
    - a) Verify, in writing, that the wastewater is considered a hazardous waste and submit this letter to the DEP Bureaus of Water and Waste Management.
    - b) Since the evaporator meets the definition of a "totally enclosed" system, the facility is exempt from RCRA permitting requirements. However, collection tanks used to store hazardous wastes during periods of evaporator malfunctions must be installed and managed in accordance with applicable hazardous waste management regulations.
    - c) If applicable, verify in writing that during periods of evaporator malfunctions, this wastewater is or will be hauled to a receiving facility, which is permitted to accept such wastes.
- 2) A facility has a valid wastewater discharge permit (NPDES or State) and wishes to include an evaporator as part of an approved wastewater treatment system.

Recommendations/Comments:

- i. Submit plans, specifications, operations and maintenance information on the evaporator system for the Commissioner’s review and approval to the DEP Bureau of Water Management.
- ii. Submit additional information to the DEP Bureau of Water Management to modify the wastewater discharge permit application and if necessary, to modify the facility’s wastewater discharge permit. If the evaporator malfunctions, the facility is now authorized to discharge this wastewater under the existing or modified permit.
- iii. The evaporator is exempt from Air and RCRA permitting requirements.

**EVAPORATORS – NOT TOTALLY ENCLOSED**

II.

- 1) A facility does not have a valid wastewater discharge permit. In case of evaporator malfunction, wastewater is hauled away in a manner acceptable to the Commissioner or a collection tank is installed to store wastewater until the evaporator is operational.

Recommendations/Comments:

- i. Determine whether the wastewater discharge immediately prior to the introduction into the evaporator is characterized as hazardous waste.
- ii. Submit plans, specifications, operations and maintenance information on the evaporator system for the Commissioner’s review and approval to the DEP Bureau of Water Management.
- iii. A facility must apply for an Air Permit under the following sections of the Regulation of Connecticut State Agencies if the applicable criteria are met:
  - a) The referenced tables below can be found in Section 22a-174-3(a)(1)(J) – Any stripping facility with potential emissions in excess of Table 3(a)(1):

Table 3(a)(1)

<u>Table the pollutant is listed on</u>	<u>Table lb/he for all pollutants</u>
Table 29-1	0.1
Table 29-2	0.2
Table 29-3	0.4

- b) 22a-174-3(a)(1)(K) – Any new stationary source or modification including potential emissions greater than five (5) tons per year of any particular air pollutant.
- c) 22a-174-29(b)(1) - On or after 10-1-86, no person shall cause or permit the emission of any hazardous air pollutant listed in Table 29-1 from any stationary source at a concentration at the discharge point in excess of the

maximum allowable stack concentration, unless the stationary source is operating in accordance with the terms of an order or permit of the Commissioner specifically allowing the continued operation of the stationary source in violation of this subdivision while coming into compliance or the source is in compliance with the provisions of subdivision 22a-174-29(d)(3).

- d) 22a-174-20(j) – Disposal and evaporation of solvents. A “person” shall not, during any one day, dispose of more than one and one-half gallons (5.7 liters) of any volatile organic compound (VOC) or of any material containing more than one and one-half gallons (75. liters) of any such VOC by any means which will permit the evaporation of such solvent into the atmosphere.
- iv. If the wastewater is characterized as non-hazardous (RCRA permitting requirements do not apply; however, if a facility treats its wastewater prior to an evaporator; see section Waste paragraph (6) ):
    - a) Submit non-hazardous waste certification form to the DEP Bureaus of Water and Waste Management.
    - b) A wastewater discharge permit is not required, if the wastewater is hauled to a receiving facility that is permitted to accept such wastes or is stored in a collection tank until the evaporator is operational.
    - c) A wastewater discharge permit is required, if the wastewater is hauled to a Publicly Owned Treatment Works or “POTW”.
  - v. If the wastewater is characterized as hazardous:
    - a) Notify, in writing, that the discharge is considered a hazardous waste and submit this letter to the DEP Bureaus of Water and Waste Management.
    - b) If applicable, verify in writing that during periods of evaporator malfunctions this wastewater is or will be hauled to a receiving facility which is permitted to accept such wastes.
    - c) Submit an application for a RCRA Part B permit to the DEP Bureau of Waste Management or submit an application for a wastewater discharge permit to the Bureau of Waste Management. Upon review of a facility’s complete wastewater permit application, if it has been determined that the company can not meet proposed permit limitations, the following information is needed: plans & specifications on a proposed wastewater treatment system for the Commissioner’s review and approval, supplemental analytical testing results to ensure compliance with proposed permit limitations in case of evaporator malfunction, and a schedule for the treatment system to be installed and operational in accordance with the approval.

If there are any further questions pertaining to this material, please contact the Bureau of Waste Management-Permitting Section at (860) 424-3372 or the Bureau of Water Management-Permitting Section at (860) 424-3018.

**NON-HAZARDOUS WASTE CERTIFICATION**

\_\_\_\_\_ (Company Name) \_\_\_\_\_ hereby certifies the wastewater(s) that (is) (are) directed to an evaporator from (Description of waste stream(s)) operation(s) prior to treatment (is) (are) characterized as non-hazardous in accordance with Section 22a-449(c)-102 of the Regulations of Connecticut State Agencies, incorporating Federal Regulation 40CFR262.11 – Hazardous Waste Determination.

Respondent shall submit this certification for (this)(these) wastestreams(s) mentioned above on an annual basis. If any new chemicals or wastestreams are added, a re-certification is required.

This form shall be directed to:

District Engineer  
Bureau of Waste Management/Engineering and Enforcement  
Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106

and

Industrial Permitting Engineer  
Bureau of Water Management/Permitting and Enforcement  
Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106

If you have any questions, please call (860) 424-3023.

Company Name  
Address

BY: \_\_\_\_\_  
Name  
Title

\_\_\_\_\_  
Date