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EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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DIVISION OF WATER SUPPLY POLICY 88-01
DIVISION OF AIR QUALITY CONTROL POLICY
(YEAR 2000 PRINTING)

Effective Date: 1-25-89

Policy, SOP or Guideline #88-01

Program Applicability:

Supersedes Policy, SOP or Guidance #

Approved by: Bruce K. Malliet/Patricia L. Deese

(Also referenced on Policy 90-04)

Trichloroethylene (TCE) Air Stripper Policy

This policy is adopted jointly by the Division of Air Quality Control (DAQC) and the Division of Water Supply (DWS) to limit the impact of trichloroethylene (TCE) in the atmosphere due to the removal of that compound from public water suppliers. It is based upon calculations of air emissions developed by DAQC. It establishes criteria for water supply treatment facility parameters that can allow a TCE air stripper without specific air pollution controls to be approved under 310 CMR 7.02.

This policy may be superseded when new technologies become available, with facility parameters differ significantly, when costs change significantly, or when an air regulation is adopted to regulate these new sources.

Policy

Air strippers without specific air pollution controls to remove TCE during water treatment will be approved when the following criteria has been met.

1. The treatment plant and wells have a minimum 400 foot zone of protection around the stack; no terrain or building in the 400 foot zone extends higher than the emission point, and
2. The air stripper tower (packed or spray) height is no less than thirty (30) feet, and
3. Treatment technologies other than air stripping have also been considered by the supplier and found to be less effective or unreasonably expensive, and
4. The stack flow rate for a spray tower is equal to or greater than 7 cubic feet per second, and for a packed tower, equal to or greater than 43 cubic feet per second, and
5. The minimum temperature of the water being treated is no less than 42 degrees F, and
6. Emissions of TCE will not exceed 0.013 grams per second from a spray tower air stripper and 0.033 grams per second from a packed tower air stripper, as calculated by the following formula.

$Q (\text{Max. CFS}) \times C (\text{Max. TCE of water being treated in mg/l}) \times 28.32 < \text{gm/sec}$

DWS and DAQC will review this policy twelve months from its effective date.

Procedure

1. The public water supplier will evaluate the design for conformity with the criteria above and submit a summary of the relevant facts and calculations to the DWS regional Section Chief.
2. DWS regional staff will review the summary and if all criteria are met, will approve the use and installation of the air stripper; if not, the package will be forwarded to the DAQC regional Section Chief.
3. DWS regional Section Chief will forward a copy of the summary and the letter of approval to the DAQC regional Section Chief.

Approved: 1-25-89
Effective: 1-25-89

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