

Bureau of Water Protection and Land Reuse Remediation Division

Fact sheet for the *General Permit for In Situ Remediation: Chemical Oxidation*

A general permit is a permit issued to authorize a specific category of *discharge*, rather than an individual *discharger*. The Commissioner of Energy and Environmental Protection is authorized to issue general permits pursuant to Section 22a-430b of the Connecticut General Statutes.

This general permit authorizes introduction of chemical oxidants and other necessary associated substances into the state's soil and groundwater to remediate pollution that is present in soil and groundwater. The authorized discharge enables in situ oxidative decomposition of pollutants in the subsurface, including petroleum products and organic solvents, and also remediation of other amenable pollutants. The chemical oxidants authorized for use under this general permit include hydrogen peroxide, metal peroxides, permanganates, persulfates, percarbonates and ozone.

Technical Requirements

The general permit contains requirements for site characterization and remediation design. Practices must be employed that include industry-accepted best practices and are consistent with the requirements of the Connecticut Remediation Standard Regulation. The general permit identifies some substances, discharge methodologies, and discharge location scenarios for which site specific approval of registration is required.

Operational Requirements and Discharge Limitations

The general permit contains requirements that authorized activities are conducted in a manner to minimize the risk that materials will escape; ensure pollutants of concern (including materials injected and breakdown products in addition to the pollutant being treated) will not impact potable water supply wells, nearby rivers and streams, or other water resources; and ensure the activities do not adversely affect other receptors. The general permit includes substance specific requirements and limitations. All discharges authorized under this general permit are required to comply with the limits and conditions specified in the general permit.

Monitoring and Reporting Requirements

At sites where activities are conducted under this general permit, a groundwater monitoring program must be implemented to both evaluate the extent of the treatment zone and to insure that pollution migration beyond the treatment zone is detected if it occurs. The permittee must report if groundwater monitoring indicates unanticipated or problematic impacts to groundwater have occurred. Such impacts are defined in the general permit.

Geographic Area

This permit covers all areas of the State of Connecticut.

Registration and Fees

Registration is required, and a fee of \$500 must be paid with registration. Coverage is authorized by the Department's issuance of either a certificate of coverage or an approval of registration, as specified in the general permit, and is contingent upon compliance with the terms and conditions of the general permit.