

4. REGULATIONS INFLUENCING THE WASTEWATER CONTROL MARKET

a. Introduction

The United States has developed a system of wastewater discharge standards, permits and enforcement mechanisms that require substantial levels of treatment prior to discharge. There are two types of discharge: direct and indirect. Direct discharges are to surface waters or groundwater. Indirect discharges are to publicly owned treatment works (POTW).

Direct discharges are governed by the National Pollutant Discharge Elimination System (NPDES) regulations. The wastewater permits have minimum standards, but are also commonly based on the receiving water quality considerations. Therefore, different dischargers may have to meet different effluent standards depending on their specific geographic location.

In addition, there are Federal effluent guidelines and standards which are industry specific technology, e.g. discharge standards based on "best available technology".

New York State is an agreement state, which means the state has taken the responsibility from the federal government to enforce the federal regulations as well as the state's regulations. In New York the Bureau of Wastewater Facilities Design has the responsibility for managing N.Y.S. Pollution Discharge Elimination System (SPEDES) permits.

Regulations control the contents of wastewater streams generated from point sources. The sources are generally divided into three types:

- 1) Industrial sources
- 2) Publicly owned treatment works (POTW)
- 3) Utilities

Industrial sources often discharge into waterways that flow into POTWs. In this case the POTW establishes the discharge criteria for the effluent from the industrial source and issues the discharge permit. Once this water has been treated by the POTW it is discharged into a publicly owned body of water, wherein its discharge is controlled by a permit issued by either the Federal Environmental Protection Agency or the State Department of Environmental Conservation.

b. The Primary Federal Regulations of concern are:

- 1) The Federal Water Pollution Control Act of 1948
- 2) The Clean Water Act of 1977
- 3) The Federal Water Pollution Control Act Amendments of 1972
- 4) The Safe Drinking Water Act
- 5) The Federal Water Quality Act of 1987