

Semiconductor Industry - RCRA Air Emission Equipment Leak Standards

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Summary Abstract

The Resource Conservation and Recovery Act (RCRA) was established to protect the environment and human health, conserve energy and natural resources, reduce the amount of waste generated, and ensure that wastes are managed in an environmentally sound manner. As such, many rules have been established to uphold the basis of RCRA and center around the definition of hazardous wastes which are ignitable, corrosive, reactive, or materials which contain certain amounts of toxic chemicals.

The applicability of these regulations is not dependent on the quantity of hazardous waste handled and is therefore not limited to traditional chemical plants and refineries. Facilities that store, treat, or dispose of hazardous waste are affected by RCRA requirements. Also, any equipment that comes in contact with RCRA defined wastes (as defined by at least 10% by weight concentration) are also impacted by these rules. Based on chemistries and operations used in the semiconductor manufacturing, these standards will apply to the industry.

RCRA, among other requirements, incorporate monitoring and record keeping requirements for valves and pressure relief devices that are in hazardous waste service. If a valve or pressure relief valve (PRV) is in hazardous waste service, it must be monitored according to the Rule. Facilities that do not provide this required monitoring, regardless of the number of valves or PRVs in service, are considered to be out of compliance with this rule and are subject to penalties by the regulating agency.

Facilities affected by these RCRA standards have very defined monitoring and repair requirements for the applicable valves and PRVs. In addition to monitoring, record keeping requirements must be implemented to document that monitoring and appropriate repair methods are implemented.

The purpose of this presentation is to provide further awareness in the semiconductor industry that facilities may be applicable to these standards, and the process that must be followed to be in compliance.