

**TCEQ Coatings Sources  
Current Best Available Control Technology (BACT) Guidelines  
Planned Maintenance, Startup, and Shutdown**

**Semiconductors**

The information is maintained by the Combustion/Coatings Section and is subject to change. Last update 9/12.

<b>Year</b>	<b>Source Type</b>	<b>Pollutant</b>	<b>Planned MSS Activity</b>	<b>Minimum Acceptable Control</b>	<b>Control Efficiency or Details</b>
2012	Semiconductor Manufacturing	VOC, Exempt Solvent, and Inorganics	Process operating with thermal control device with or without rotor concentrator bypassed for maintenance on the thermal control device.	Limiting process operation while the control device is down for maintenance to less than 120 hours per year in total.	Impacts for criteria pollutants and individual species must be acceptable during control device bypass.
			Thermal control device startup and shutdown.	Venting ductwork and oxidizer to atmosphere to eliminate explosive atmospheres prior to start of control device operation. Control device shall be in normal operation and at the appropriate temperature prior to start of process operation. Control device shall remain in normal operation at least 30 minutes after the completion of the operation before shutdown.	Minimize the duration of the control device startup and shutdown consistent with good operating practices. Emissions from the combustion of natural gas and the waste stream shall be based on full firing rates for natural gas and maximum solvent loading from the operation.

<b>Year</b>	<b>Source Type</b>	<b>Pollutant</b>	<b>Planned MSS Activity</b>	<b>Minimum Acceptable Control</b>	<b>Control Efficiency or Details</b>
			Fugitive component repair, replacement; leaks - piping, pumps, valves, flanges, etc.	Audio, visible and olfactory (AVO) inspection and maintenance plan with daily walk through to identify leaking components and repair of leaks as soon as practicable. Good housekeeping for spills.	Identify leaking components on daily inspection record with repairs completed as soon as practicable or within 15 days. Purging of piping and components to remove as much liquid as practicable before repairs or replacements are initiated. Liquids from leaks and absorbent materials are stored in closed containers until removal from the site or sent to a solvent recovery system at the site.
			Degassing storage tanks prior to cleaning and inspection.	Removal of as much of the remaining liquid as practicable.	The remaining heel in the storage tank shall be less than one-half inch at the deepest point before degassing and venting to the atmosphere may begin. Degassing of storage tanks with a heel greater than one-half inch shall be evaluated on a case by case basis.
		Inorganics	Process operating with scrubbers bypassed for maintenance on the scrubbers control device.	Limiting process operation while the control device is down for maintenance to less than 120 hours per year in total.	Impacts for criteria pollutants and individual species must be acceptable during control device bypass.
	Diamond Point Turning and/or Material Saws	Particulate matter including PM, PM <sub>10</sub> and PM <sub>2.5</sub>	Dust collection system filter replacement.	Removal of spent filters in such a manner to minimize PM emissions and placing the spent filters in sealable bags or other sealable containers prior to removal from the site.	Bags or containers shall be kept closed at all times except for the addition of additional spent filters.