

*****Replicable Testing Procedures*****

Saturn Corporation, Spring Hill Tennessee (Automobile Manufacturing industry)

- permit conditions

Process Description:

Emissions Monitoring Technique:

Emissions Calculation:

Pollutant Control Technique:

Process Description: The Saturn flexible permit includes performance/emission testing requirements for VOC emissions from several coating operations utilizing oxidizers and carbon adsorption control systems. The test requirements are provided in Section E9 of the permit.

E9 Performance/Emission Testing Requirements

E9-1 Saturn shall evaluate the coating solids transfer efficiency for the following emissions unit:

- a) ESRN 67/38 – Fascia/Service Parts Prime Operations

E9-2 Saturn shall evaluate the oven solvent load (OSL) for the following emissions units:

- a) ESRN 67/38 – Fascia/Service Parts Prime Operations

E9-3 Saturn shall evaluate the VOC destruction efficiency of the curing oven oxidizers serving the following emissions units:

- a) ESRN 32 - Space Frame and Sheet Metal Electrocoat (E- coat) System
- b) ESRN 33 – Major Panel Topcoat Operations
- c) ESRN 36 – Major Panel Prime Operations
- d) ESRN 37/39 – Fascia/Reprocess Topcoat Operations
- e) ESRN 67/38 – Fascia/Service Parts Prime Operations
- f) ESRN 35/40 – Underbody PVC/Seam Seal/Blackout Operations

E9-4 Saturn shall evaluate the VOC control efficiency of the paint shop carbon adsorption unit (CAU) and the CAU desorption gas oxidizer.

E9-5 Saturn shall use EPA Reference Method 25A; Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer to conduct any required VOC control efficiency tests.

E9-6 Unless specified otherwise, the emission test methods described in 40 CFR Part 60, Appendix A – Test Methods shall be the preferred methods for the conduct of any required emissions testing program.

E9-7 Conditions E9-1, E9-2, E9-3, and E9-4 may be removed from this permit by Administrative Amendment upon their successful completion by the permittee.

Emissions Monitoring Technique: See Section B “General Conditions for Monitoring, Reporting, and Enforcement”, Attachment 2 “Pollution Control Device Monitoring Protocols for Saturn”, and E10 “Pollution Control Devices” in the complete Saturn permit. Attachment 2 contains detailed monitoring protocols for fabric/cartridge filters (2A), oil mist eliminators (2B), thermal oxidizers (2C and 2D), carbon abatement systems (2E), waterwash paint booths (2F), and dry paint filters (2H).

Emissions Calculation: See Tables 1 – 4: “Summary of VOC (Table 1), PM (Table 2), NO_x/SO₂ (Table 3), CO (Table 4) Emissions Sources, Control Technology Requirements, and Proposed Emission Rate Calculation Methods” in the Plant-wide Emission Limits (PAL, PSEL) section of this document.

Pollutant Control Technique: See Tables 1 – 4: “Summary of VOC (Table 1), PM (Table 2), NO_x/SO₂ (Table 3), CO (Table 4) Emissions Sources, Control Technology Requirements, and Proposed Emission Rate Calculation Methods” in the Plant-wide Emission Limits (PAL, PSEL) section of this document.