

Flint Assembly - New Paint Shop OPERATION AND MAINTENANCE PLAN

Scope

The scope of this Operation and Maintenance (O&M) Plan applies to all six (6) regenerative thermal oxidizers (RTOs) in the new paint shop.

1. Alliance Elpo RTO #1 abates volatile organic compounds (VOCs) from the Elpo tank and the first portion (heat-up section) of the Elpo oven.
2. Alliance Elpo RTO #2 abates VOCs from the second portion (cure section) of the Elpo oven.
3. Alliance Sealer RTO abates VOCs from all zones of the Sealer oven.
4. Durr Booth RTO abates VOCs from prime heated flash zones, basecoat heated flash zones, and clearcoat spray zones (including observation zone).
5. Alliance Topcoat Oven RTO1 abates VOCs from Topcoat oven 1 & 2.
6. Alliance Topcoat Oven RTO2 abates VOCs from Topcoat oven 3 & 4.

General Requirements

According to Renewable Operating Permit (ROP) MI-ROP-B1606-2014b, Special Condition III.1, all regenerative thermal oxidizer (RTO) maintenance inspections including the dates, results of the inspections and the dates and reasons for the repairs if made shall remain on file in the paint shop and/or with the environmental engineer as required by ILM retention period ENV016.

Regenerative Thermal Oxidizer

Flint Assembly's six RTOs are used to demonstrate compliance with the facility's VOC emission limit. The following inspections are required on each RTO:

1. A minimum of once every 18 months, the facility shall verify the condition of the heat exchanger and/or heat transfer media.
2. A minimum of once every 18 months, the facility shall verify the valve seal synchronization and inspect the condition of the valve seals.
3. A minimum of once every 12 months, the facility shall validate the accuracy or recalibrate the combustion temperature thermocouple(s). Thermocouple can be replaced in lieu of validation.

The requirements outlined above in 1 and 2 can also be satisfied by the completion of a performance test within the prior 18 month period. Destruction Efficiency testing was completed between October 24, 2016 to November 3, 2016.

MAXIMO Tasks

All maintenance tasks required for the RTO are in MAXIMO. Tasks 1-3 are required by the permit so they are given the highest priority in MAXIMO.

	PM Description	PM Number	Frequency
1	Visual Inspection Heat Transfer Media	PM42320 – Booth RTO PM43606 – TC 1 RTO (Ovens 1 & 2) PM43607 – TC 2 RTO (Ovens 3 & 4) PM43608 – ED Oven / Tank RTO 1 PM43609 – ED Oven RTO 2 PM43610 – Sealer Oven RTO	Annual
2	Inspect Valve Seals, Verify Valve Timing/Synchronization	PM43739 – Booth RTO PM43740 – TC 1 RTO (Ovens 1 & 2) PM43741 – TC 2 RTO (ovens 3 & 4) PM43742 – ED Oven / Tank RTO 1 PM43743 – ED Oven RTO 2	Annual

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		PM43744 – Sealer Oven RTO	
3	Thermocouple Validation or Replacement	PM42319 – Booth RTO PM43601 – TC 1 RTO (Ovens 1 & 2) PM43602 – TC2 RTO (Ovens 3 & 4) PM43603 – ED Oven / Tank RTO 1 PM43604 – ED Oven RTO 2 PM43605 – Sealer Oven RTO	Cannot exceed 12-Months
4	Validation of RTO Interlocks	PM43611 – Booth RTO PM43612 – TC RTO1 (Ovens 1 & 2) PM43613 – TC RTO2 (Ovens 1 & 2) PM43614 – ED Oven / Tank RTO1 PM43615 – ED Oven RTO 2 PM43616 – Sealer Oven RTO	Annual