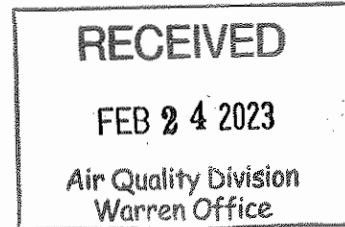


February 21, 2023  
 Project No. 230231

Adam Bogner  
 Warren District Office  
 Air Quality Division  
 Michigan Department of Environment, Great Lakes, and Energy  
 27700 Donald Court  
 Warren, MI 48092



**Response to the Violation Notice Dated January 31, 2023**  
**Thermaseal, Inc. (SRN ~~B1678~~) P1198**  
**Romeo, Michigan**

Dear Adam:

This letter is in response to the EGLE-AQD Violation Notice dated January 7, 2022 (VN). We appreciate you taking the time to meet with us on January 7 and have incorporated your suggestions in this letter and our record keeping system. The VN suggests that Thermaseal, Inc. is in violation of several air quality regulations. The allegations cited in the VN are as follows.

Process Description	Rule/Permit Condition Violated	Comments
EUPRINTINGLABELS Rotogravure printing line	PTI No. 58-22 Section IV Special Condition 2	Thermaseal Inc. operated EUPRINTINGLABELS without installing, maintaining, and operating the thermal oxidizer in a satisfactory manner.
EUPRINTINGLABELS Rotogravure printing line	PTI No. 58-22 Section IV Special Condition 3	Thermaseal Inc. failed to calibrate, maintain, and operate the continuous temperature monitoring device in the thermal oxidizer combustion chamber.
EUPRINTINGLABELS Rotogravure printing line	PTI No. 58-22 Section IV Special Condition 4	Thermaseal Inc. operated EUPRINTINGLABELS without installing, maintaining, and operating a non-fugitive enclosure for the process.
EUPRINTINGLABELS Rotogravure printing line	PTI No. 58-22 Section III Special Condition 3	Thermaseal Inc. operated EUPRINTINGLABELS without implementing, submitting, and maintaining a malfunction abatement plan within 60 days of beginning trial operation.
EUPRINTINGLABELS Rotogravure printing line	PTI No. 58-22 Section III Special Condition 3	Thermaseal Inc. did not determine the VOC content, water content, and density of coating materials using an EPA federal reference Test Method 24. Thermaseal did not obtain approval from the AQD district supervisor to use manufacturer's formulation data.
EUPRINTINGLABELS Rotogravure printing line	PTI No. 58-22 Section V Special Condition 1	Thermaseal Inc. did not determine the VOC content, water content, and density of coating materials using an EPA federal reference Test Method 24. Thermaseal did not obtain approval from the AQD district supervisor to use manufacturer's formulation

Process Description	Rule/Permit Condition Violated	Comments
		<i>data.</i>
<i>EUPRINTINGLABELS Rotogravure printing line</i>	<i>PTI No. 58-22 Section V Special Condition 2</i>	<i>Thermaseal Inc. failed to perform a destruction efficiency test on the thermal oxidizer within 180 days of permit issuance.</i>
<i>EUPRINTINGLABELS Rotogravure printing line</i>	<i>PTI No. 58-22 Section V Special Condition 3</i>	<i>Thermaseal Inc failed to verify the direction of air flow of the non-fugitive enclosure is into the enclosure on a semiannual basis.</i>
<i>EUPRINTINGLABELS Rotogravure printing line</i>	<i>PTI No. 58-22 Section VI Special Condition 4</i>	<i>Thermaseal failed to maintain records of the thermal oxidizer combustion chamber temperature on a continuous basis.</i>
<i>EUPRINTINGLABELS Rotogravure printing line</i>	<i>PTI No. 58-22 Section VI Special Condition 5</i>	<i>Thermaseal Inc. failed to keep records of the test results verifying the air flow direction is into the non-fugitive enclosure on a semi-annual basis.</i>

As requested, this letter provides information regarding the referenced citations, including: the date the alleged violations occurred; an explanation of the causes and duration of the alleged violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations; the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Thermaseal purchased the RTO from a third party vendor though we had a contract with certain RTO performance guarantees. When we received the RTO, we invested in new ductwork, electrical and Gas supply updates, a concrete foundation and other equipment needed to properly operate the RTO. Unfortunately, the vendor removed the operation program from the computer controls to enable the operation of the unit. We did not immediately realize this because we had so much other equipment to purchase and install to make the RTP operational. Several months ago, we hired a law firm and we have been in litigation with the vendor since. From what our attorney has said. It appears that we will settle out of court with them soon which will enable us to program the computer controls and operate the RTO.

It should also be noted that when we applied for PTI 58-22 it was with the understanding that some limited production of labels was taking place at the facility under a PTI exemption and that the controls mandated by the permit were not yet fully installed and operational. In fact, construction of the non-fugitive enclosure (NFE) had not begun and the RTO was in place but no duct work was running from the printer to the RTO at the time the PTI was finalized. That is why our PTI references the installation date of EUPRINTINGLABELS as "TBD" as indicated in the Emission Unit Description Table:

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUPRINTINGLABELS	Manufacturing of high-end quality labels by using rotogravure printing line controlled by non-fugitive enclosure (NFE) and a Thermal Oxidizer (TO). These labels will adhere to leather, industrial garments, and other materials that may need to function in abrasive or harsh environments (e.g., personal protective equipment).	TBD	NA
EUPARTWASHER	Parts washer using solvent-based cleaner.	11-01-2021 / 5-10-2022	NA

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

In addition, Special Condition VII.1 of the PTI requires that the facility notify EGLE when construction was complete, which indicates that the installation was not complete when PTI was issued:

**VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation,

Thermaseal, Inc. (P1198)  
Permit No. 58-22

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construction, reconstruction, relocation, or modification is considered to occur not later than the end of trial operation of EUPRINTINGLABELS. (R 336.1201(7)(a))

Thermaseal still has not submitted the notification required under SC VII.1 because installation of the controls is not yet complete. The electronic system associated with the new regenerative thermal oxidizer (RTO) is not yet operating and construction of the NFE is not complete. On the date of the inspection, the RTO had not yet been placed in service. The company from which Thermaseal had purchased the RTO refused to perform the programming necessary for the unit to operate without Thermaseal providing additional funds that were not indicated in the initial purchase agreement. Thermaseal sought legal assistance and has worked out an agreement with the company to have them come back to configure the RTO. The programming is scheduled to take place on April 9, 2023. Thermaseal was reluctant to permanently enclose the unit until all the ductwork associated with the RTO was installed and operating properly to provide adequate access to everything during startup. Thermaseal has finished the design of the enclosure and is now starting construction on the unit in anticipation of the RTO installation being completed in April. The installation of the NFE will be completed by April 30, 2023 provided the RTO upgrades are completed on schedule. Once the control upgrades are finished, the RTO will be operational and

approximately 90% plus of the emissions will be capture by the ductwork prior to completion of the construction of the enclosure. Thermaseal is asking that EGLE consider the delay in start-up when evaluating their compliance status.

Had Thermaseal known these issues would take place and would take this long to fix, we would have requested that EGLE put a date of startup for the controls 1 year from issuance of the permit. It should be noted that records of material usage for EUPRINTINGLABELS provided to EGLE following the inspection demonstrated compliance with the emission limits in the PTI even without the controls operating.

Thermaseal will submit the notification required under SC VII.1 once the RTO installation and construction for the NFE are complete. we will comply with all of the PTI conditions referenced in the VN. Following is an update on the conditions that were highlighted in your letter:

- Operating and maintaining the RTO. Once the control panel has been programmed on or about April 30, 2023, Thermaseal is committed to operating the RTO properly.
- Monitor and record the RTO operating temperature. Part of the programing that is being performed by the company from which we bought the RTO is associated with tracking combustion temperature and then recording it. Once the RTO is operating this system will be operating properly.
- Maintain a non-fugitive enclosure (NFE). The installation of the NFE should be completed April 30, 2023. We are targeting the initial smoke testing for the week of May 3, 2023 but can repeat this process when the stack testing is performed.
- Developing and maintaining a Malfunction Abatement Plan for the RTO. We could not develop the required MAP until the RTO and NFE were operating. We will submit the MAP before June 1, 2023.
- Request permission to use formulation data in lieu of USEPA Reference Method 24 for determining VOC content. As you may remember from your site visit, Thermaseal mixes the coatings (there are only two) using raw materials like toluene, alcohol, a cross-linker (an Isocyanate) and an epoxy resin or polyurethane binder. The SDS for the polyurethane binder, alcohol and toluene indicate 100% VOC and entirely emitted. EGLE does not typically require Method 24 testing for materials that are 100% VOC. The crosslinker contains VOCs that are consumed in the reaction that creates the coating and binds it to the substrate. The remainder of the coating components are solids that gives the coating color and weight and do not contain VOCs. As a result, it should not be necessary to run a Method 24 test to determine VOC content of the coating mix it can be determined using the mix ratio approach currently in the recordkeeping. Thermaseal respectfully requests that EGLE allow Thermaseal to determine VOC content based on the ratio of raw materials used in the coatings and their respective VOC contents instead of using USEPA Method 24.
- Destruction efficiency testing of the RTO. Thermaseal has contacted a test company and is tentatively planning testing for June of this year. A protocol will be submitted at least 30 days in advance of the testing.
- Verify the direction of flow in the NFE. Thermaseal is purchasing smoke tubes to do the smoke testing and will finish this smoke testing the week of May 1, 2023, and will complete this testing at least once every six months going forward.
- Maintain temperature records. Part of the dispute with the company from which we purchased the RTO was associated with tracking combustion temperature. Once the system is operational, Thermaseal will maintain its combustion temperature records for at least five years from the date of generation.
- Records of smoke testing. Once testing is completed the week of May 1, 2023, Thermaseal will maintain records for at least five years from the date of generation.

We regret any confusion that may have been caused by the delay in start-up of the RTO, we are committed to complying with our PTI and keeping the required records.

Adam Bognar  
February 21, 2023

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If you have any questions, please contact me at (586) 336-9415 or [ddenhart@thermasealinc.com](mailto:ddenhart@thermasealinc.com) or our environmental consultant, Lillian Woolley, at 586.489.6876 ([lilwoolley@fishbeck.com](mailto:lilwoolley@fishbeck.com)).

Sincerely,  


David Denhart  
Vice-President, Thermaseal, Inc.

By email and USPS  
Copy: Jenine Camilleri – EGLE-AQD, Lansing