

December 6, 2023

Ms. April Lazzaro
Senior Environmental Quality Analyst
Air Quality Division
Grand Rapids District Office
Michigan Department of Environment, Great Lakes, and Energy
614-558-1092

RE: Response to Notice of Violation
Rack Processing Michigan

Dear Ms. Lazzaro:

Rack Processing Michigan (RPM) is in receipt of your notice of violation letter dated November 15, 2023. Below are responses to your findings. Rack Processing has given authority to EHS Technology Group to submit a response on their behalf. For clarity, findings from the NOV are indicated by bold, italicized font followed by the RPM response.

1. MI-ROP-N7679-2018 and MI-ROP-N7679-2023, EUBURNOFF, Special Condition No. IV.1

Failure to operate the burnoff oven at temperatures above 1,560°F during 49 batches.

The afterburner of the burnoff oven did operate at temperatures lower than 1,560°F as noted in the quarterly deviation report. These low temperatures started occurring after a new blower was installed on 5/11/2023. The plant manager Danny Jozwiak noticed the difference in operation immediately and worked with the manufacturer of the oven Steelman and made continual efforts in attempts to improve conditions. These low temperatures were eventually successfully improved after adjusting an air flow valve on the afterburner on 10/30/2023. This successfully raised the afterburner temperature. Although in compliance after adjusting the air flow, RPM is still working with the oven manufacturer Steelman to further improve the operation of the afterburner. RPM was recently directed in adjusting some of the original/default set points in the controller of the oven in attempts to get an even higher and consistent afterburner temperature.

Records were adequately kept of the afterburner temperatures and monitored; the root cause was a lack of understanding regarding the 1560 degrees minimum threshold. The deviations primarily occurred towards the beginning or end of the burns with the middle of the burns operating at around the maximum 1800 degrees. The manufacturer had communicated that it was completely normal to see the

afterburner temperature slowly taper up at the beginning of operation as the product starts to heat up and the plastisol coating starts to burn off, and then slowly taper down at the end of operation once the product is burned off. This information although true caused a misunderstanding in regards to the minimum temperature threshold.

Moving forward, RPM has taken many steps to prevent recurrence. A new procedure was implemented where RPM will scan, electronically file, and send copies of the temperature data wheels to Rack Processing Ohio where they will be reviewed on a weekly basis by upper management. Additionally, an engineer is currently creating a reporting form in Microsoft Access. This reporting form will have environmental data, including the afterburner minimum temperature during the burn. If this temperature is reported under the threshold on the form, the system will automatically trigger an alert notification and send an email message to upper management so that they can better deal with a potential future occurrence.

A Malfunction Abatement Plan for the EUBURNOFF was created by Brent Hoggatt (EHS consultant) and Danny Jozwiack (RPM Plant Manager) as requested. Let us know if there are any concerns with the MAP.

2. MI-ROP-N7679-2018 and MI-ROP-N7679-2023, EUBURNOFF, Special Condition No. III.3

Failure to calibrate thermocouples within one year of the last calibration.

The thermocouple calibration was last completed on 8/28/2022. Since the Notice of Violation, RPM has remediated this deficiency and got the thermocouplers calibrated on 11/29/2023. A report of the calibration is attached at the end of this report. With this recent calibration, there was a calibration each fiscal year, but if you evaluate the annual requirement on a once every twelve-months basis, RPM was out of compliance approximately three months- 8/28/2023 to 11/29/2023. The root cause of this was a transitional period in EHS consultants. Additionally, the new oven was not yet on the recurring schedule of the calibration vendor. The Malfunction Abatement Plan, specifically the maintenance table, will ensure that there is not another lapse in a twelve-month period.

3. MI-ROP-N7679-2018 and MI-ROP-N7679-2023, EUBURNOFF, Special Condition No. IV.3

Failure to operate EUBURNOFF with a properly operating interlock system.

We believe that the EUBURNOFF oven has a properly operating interlocking system. On start up, the afterburner must reach the set point of 1560 degrees Fahrenheit before the primary oven is turned on. If the afterburner is shut down, the primary oven will shut down. MI-ROP-N7679-2023 permit mentions four items specifically when referring to afterburner malfunctions: natural gas supply pressure is pressure too high or low, water supply pressure is too low, primary chamber excess temperature, and afterburner excess temperature. The oven has working interlocks for all of these mentioned scenarios. The oven is working according to manufacturer's specifications as it was permitted and originally

installed. Please see the bottom of the response for the manufacturer's specifications regarding their interlocks.

4. MI-ROP-N7679-2018 and MI-ROP-N7679-2023, EUBURNOFF, Special Condition No. VI.5.b

Failure to calculate emissions using the data obtained during the most recent stack test.

The MI-ROP-N7679-2023 permit states “PVC content of the plastisol processed on a weight percent basis, or the emission factor in pounds of HCl per pound of plastisol coating as determined by the most recent stack test as required in SC V.1.”. The 0.35 that was used in the calculations is on a weight percent basis. RPM decided to continue to use the weight percent basis value rather than 0.31, as the 0.35 is more conservative and errs on the side of caution/over-reporting.

RPM will wait to resubmit the quarterly deviation report until they hear back from Michigan EGLE regarding the responses on the additional violations.

Thank you for bringing these matters to our attention. I assure you that Rack Processing Michigan is committed to maintaining compliance with all required permit conditions. Should you have questions or suggestions please contact me at (937) 725 9759 or by email at bhoggatt@ehstech.com

Sincerely,

Brent Hoggatt
Project Manager
EHS Technology Group

Cc: Robert Basl (EHS Technology Group), Kevyn Coy (Rack), Cheryl Stansifer (Rack), Danny Jozwiak (Rack)

Manufacturer's Interlock Specifications

pressure fluctuates above and below 50 psi, a pressure tank system will be required. Look for the Water Pressure Control Station drawing later in this manual. It's a good idea to measure your water pressure before you receive the oven to avoid start-up delays.

The most important thing to remember is to call Steelman at 1-800-BURNOFF before you start the oven for the first time, and anytime you have a question.

SAFETY FEATURES

This oven is equipped with **Automatic Process Control (APC)**, which prevents fires, overheating of parts and automatically controls the cycle time. The features are described below.

Fire Prevention. The APC System continuously monitors the heat up rates of both the oven and afterburner. If combustible gases are produced at an excessive rate, the APC System will detect it and turn on the primary water sprays to slow the process. If the primary sprays do not control within 20 seconds, the large back-up spray will be activated. If the backup fails to control within 20 seconds, the Trip System will lock out the primary burner and the System Trip lamp will light. **The Trip System must not be reset until the source of the problem has been corrected.**

Overheat Protection. If the combustible materials in the oven begin to burn and raise the oven temperature more than 10 °F above setpoint, or if either the oven temperature or afterburner temperature is increasing too rapidly, the oven will go into a water spray control mode. In this mode, the water sprays will control oven temperature to prevent a fire and to protect the parts from excessive heat. After 3 minutes the oven will revert to burner control.

Automatic Cycle Time. The oven will run until the "Soak Cycle" (heat soak) is over. The Soak Cycle starts after the water sprays have stopped and the top and bottom of the oven are up to temperature. The "soak" period allows enough time for all combustible materials in the oven to be removed. This time is adjustable for different situations. Refer to the Controller Settings Section of this manual.

Cool-down System. If the afterburner fails during a cycle, or if the stop switch is activated, the primary water sprays will come "on" and cool the oven to 400 °F to prevent smoke from leaving the oven. In the event of a power interruption, the water sprays will come on when power is restored. An optional back-up power supply is available for extended power interruptions.

Water Pressure. The oven must have adequate water pressure at all times for controlling the amount of combustible vapor in the oven. A water pressure switch is provided which requires 50 psi to start the primary burner and 30 psi to continue operation. A water pressure lamp located near the water spray assembly will be lit when water pressure is satisfactory. The water pressure must not exceed 100 PSI. Below 30 psi, the primary

burner will turn off after 10 –15 seconds. A red indicator will activate if the burner shuts off during the run. The primary burner will relight when the pressure returns to 50 psi.

High-Limit Control. If for any reason the oven temperature exceeds 1,000 °F, the high limit control will lock out the primary burner. Never reset this control until the source of the overheat condition has been corrected.

Door Switch. The oven will not start unless the control panel side door is open at least 90 degrees, which activates the door switch. This is so that the operator will detect any combustible gas or smoke which might ignite when the burners are fired. **DO NOT START THE OVEN IF YOU DETECT COMBUSTIBLE GAS OR SMOKE.** The door must remain open during the "purge cycle". Close the doors when the burners light.

Gas Pressure Switch. High and low gas pressure switches are located on the gas valves. These switches will turn off the oven if the gas pressure is too high or too low. The low-pressure switches must be reset on a new installation and anytime the gas is turned off. If these switches trip during operation, there is a gas supply problem that must be corrected before the oven is operated again. To reset the switch, push on the plastic cover over the switch. Do not remove the cover.

spray test switch on the control panel. Each nozzle must deliver a horizontal, fan-shaped spray over the top of the cart or baskets. If any nozzle fails to work properly it must be removed and cleaned or replaced.

5. Verify that the oven temperature controller is at the proper setting for the material being processed. Refer to the Temperature Setting section for recommendations. The controller regulates the maximum temperature in the oven which is at the top in the rear. The setpoint is changed by pressing the "UP" or "DOWN" arrow on the oven temperature controller. To change temperature faster, press the other arrow once (while keeping the initial arrow depressed) to count by tens or twice to count by hundreds.
6. Put the "normal/temp. sensitive" switch in the correct position. It should be in the "normal" position unless you are processing materials such as aluminum or temperature sensitive parts such as electric motor stators.
7. Open the door(s) and verify that there is no combustible gas or smoke in the oven. If a combustible mixture is detected, **DO NOT START THE OVEN UNTIL IT HAS BEEN CLEARED AND THE SOURCE DETERMINED AND REPAIRED.**

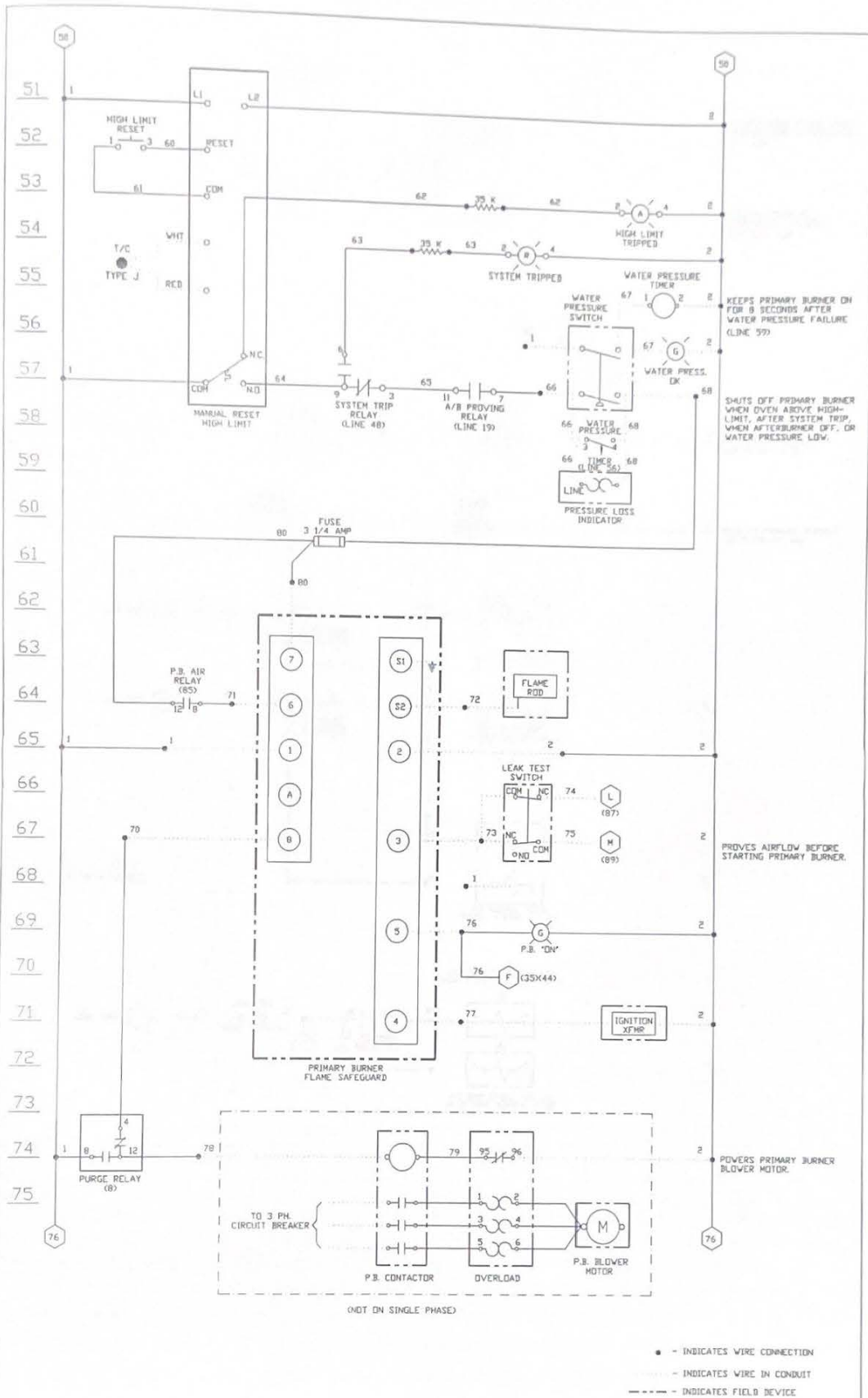
(Initial Startup Only) Before starting ovens with 3 phase motors, verify that both burner blower wheels are rotating in the proper direction. Press the "start" button and immediately press the "stop" button. The top of the wheel should move toward the oven.

(Initial Startup Only) For this test, the cart should be in the oven without any parts or combustible materials loaded. Exception: if this oven is equipped with a part temperature control system and thermocouple, a piece of metal must be placed one foot high above the center of the cart and the thermocouple must be firmly attached to the piece of metal. For details on the part temperature control system, see "Instructions for the Part Temperature Control System."

(Initial Startup Only) Set the soak timer, located at the bottom of the control box, for 1 hour.

8. With the door(s) open push the "start" button. The blowers will run for 1 minute to purge the chambers with fresh air.
9. When the purge is complete, the afterburner will light, then the primary burner will light. The primary burner cannot operate without the afterburner being "on". (On special EPA ovens once the afterburner lights the oven door must be shut. The afterburner must then heat up to 1525°F before the primary burner will light.)

(Initial Startup Only) The burners may be difficult to light until the piping is full of gas so the "start" button may have to be pressed several times initially. On ovens with HAUCK burners, the "reset" button on the red burner controller (Fireye-next to the control box) may have to be reset several times in conjunction with pushing the start button until the burner lights.



All technical information presented in this document is considered confidential and shall not be copied, used, or disclosed without the consent of Steelman Industries.

STEELMAN INDUSTRIES INC.

SCALE NONE	DR. BY C.B.R.	DATE 01/13/12
DWG. SIZE 8	CHECK BY	DATE
SHEET 3	OF 4	DWG. NO. RATE19LQVTEMP

Calibration Documentation



November 29, 2023

Rack Processing
3513 Lousma Drive, SE
Wyoming MI 49548
Attn: Danny Jozwiak

Thank you for using us to assist with the annual calibration on your oven. Our Senior Technician, Conrad Lenger was at your facility on November 29, 2023 to perform the calibration. For your records, our findings are as follows:

Ambient Findings:

Ambient Temperature:	Actual - 80° F.	
Oven Controller:	Actual - 80° F.	Reading - 79° F.
Stack:	Actual - 82.0° F.	Reading - 84.0° F.
Chart Recorder:	Actual - 83.0° F.	Reading - 84.0° F.

After Burner Findings:

Stack:	Actual - 1,523° F.	Post Calibration - 1,529° F.
Chart Recorder:	Actual - 1,518° F.	Post Calibration - 1,527° F.

These measurements are within tolerance. +/- 1%. variance off our calibration instrument

Oven Model:
Steelman Burn-off oven
Model: 12912BA-PL
S/N: B211084

Calibration tool is a Extech Model: PRC30 Calibration tag # A040658

Thank you again for your business. We will contact you when your next calibration is due and we'll be happy to schedule the service. Please don't hesitate to contact us if you require additional information.

Best Regards,

Mark Ashbay, Service Manager