

REPORT OF INDUSTRIAL USER COMPLIANCE SAMPLING INSPECTION

AT

**Heatron Inc. Plant 2
200 Commercial Dr
Leavenworth, KS 66048**

KANSAS PRETREATMENT PERMIT: KSP000114

BY

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 7: Enforcement and Compliance Assurance Division**

December 6, 2023

INTRODUCTION

I conducted an Industrial User Compliance Sampling Inspection at the Heatron Inc. Plant 2 (Heatron) 200 Commercial Dr, Leavenworth, Kansas, on December 6, 2023. The inspection was conducted under the authority of Section 308 of the Clean Water Act (as amended) and in accordance with EPA Region 7 Standard Operating Procedures. This narrative report and attachments present the results of the inspection.

PARTICIPANTS

Heatron Inc:

Austen Miller, Chemical Engineer, (913) 651-4420

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Glen Weichold, Manufacturing Engineer

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U.S. Environmental Protection Agency (EPA), Region 7:

Hannah Lewis, Life Scientist, (913) 551-7679

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FACILITY DESCRIPTION

Heatron manufactures cartridge heaters at this facility. Raw materials utilized in the process include but are not limited to stainless steel tubes. The tubes are first cut and welded to the customer's specification. Then, the tubes are treated through electropolish process which includes an electric current while the tube is in a sulfuric/phosphoric acid bath. The tubes are then rinsed followed by passivation process which includes a nitric acid bath followed by additional rinsing. Process wastewater produced from these rinsing activities is directed to a neutralization tank for pH adjustment. Discharges occur after a pH correction is completed. The pH is adjusted using either sodium hydroxide or sulfuric acid. Process wastewater produced from testing baths is also directed to the neutralization tank.

INSPECTION PROCEDURES

Facility personnel were not notified prior to the inspection. I arrived at the Heatron main office unannounced at 9:15 a.m. on December 6, 2023, presented my credentials to Mr. Miller and Mr. Weichold, and explained the purpose and procedures of the inspection. I informed them I would be conducting inspections at both the Plant 1 and Plant 2 facilities. I also stated that during the inspection, I would collect samples of the facilities' process wastewater that is discharged to the city of Leavenworth. Six photos were taken during the inspection of Plant 2 (attachment 1). I completed the Region 7 inspection checklist after the completion of the inspection (attachment 2).

SAMPLING PROCEDURES:

On December 6, 2023, I collected grab samples from the pH adjustment tank (Outfall 001). The samples were submitted for metals analysis. The samples were collected in clean containers for analysis, preserved as appropriate, cooled with ice to maintain 4 degrees Celsius. The temperature and pH analyses were performed immediately on site.

All samples collected were transported to the EPA Region 7 Laboratory. Chain-of-custody procedures were used for all samples. All appropriate Region 7 standard operating procedures in the collection, packaging, transportation, and handling of the samples were followed.

FINDINGS AND OBSERVATIONS

1. Permit: A Kansas Pretreatment Permit for Heatron became effective on October 1, 2022, and will expire September 30, 2027 (attachment 3). The permit requires the facility to monitor its effluent for flow, pH, metals (cadmium, chromium, copper, lead, nickel, silver, zinc), total toxic organics (TTOs), and cyanide. The permit also places numerical limitations on those parameters. The permit further requires the facility to sample and analyze the parameters on a quarterly basis and submit discharge monitoring reports (DMRs) to KDHE on a semi-annual basis, by January 28 and July 28 of each year.

Mr. Weichold stated that the facility operates one shift, five days per week and has approximately 46 employees.

Mr. Miller described each process wastewater operation. Process wastewater is produced from rinsing activities at different stages of the stainless tube treatment and testing baths. All process wastewater is directed to a neutralization tank for pH adjustment. After confirming the pH is within permitted range, facility personnel conduct a discharge through Outfall 001.

2. Discharge Monitoring Reports (DMRs): I reviewed the facility's analytical results from April 2020 – November 2023. After the review, I placed the files in the ECAD electronic file system. In April 2022, the chromium limit was exceeded due to an unapproved process change. The facility routinely reports a discharge rate of 400 GPD on the DMRs because flowmeters are not present for obtaining a more accurate measurement.

3. Water Balance: A reasonable water balance was achieved following the inspection even though there are unknown losses to evaporation and contact cooling water. The facility provided a spreadsheet with estimated water losses. Domestic wastewater is discharged separately than process wastewater. According to water purchase records provided by the facility, from May 2023 to

November 2023, it was determined that the facility consumed an average of 2,430 gallons per day. The facility estimates 1,400 gallons per day lost during production. Other estimated losses include domestic use (920 gallons per day), contact cooling water (unknown), and evaporation (unknown).

5. Total Toxic Organics: The facility can certify compliance with the Metal Finishing limit established for Total Toxic Organics (TTO) provided it is following the provisions of its approved Solvent Management Plan. Mr. Miller provided a copy of the Solvent Management Plan after the completion of the inspection. I reviewed the Solvent Management Plan, then placed the plan into the ECAD electronic file system.

6. Sample Results: Analytical results for samples collected during the inspection are presented in the table below. The complete data transmittal package is included as attachment 4.

Results from Samples Collected during the Inspection, mg/L

Analyte	Value	Dmax	Mavg
Ag	ND	0.43	0.24
Cd	ND	0.11	0.26
Cr	0.413	2.77	1.71
Cu	0.125	3.38	2.07
Ni	0.108	3.98	2.38
Pb	ND	0.69	0.43
Zn	ND	2.61	1.48
Cn	not analyzed	NA	NA
pH (s.u.)	7.67	5.0 min	10.0 max

Results of the sampling indicate that the facility was in compliance during the sampling event on December 6, 2023.

SUMMARY

The facility appeared to be well maintained and operated at the time of the inspection. The facility has exceeded effluent limits once in the last three years. Documentation was available upon request.

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Hannah Lewis
Life Scientist

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Attachments:

1. Digital Image Log (7 pages)
2. Region 7 Industrial User Inspection Checklist (6 pages)
3. Kansas Pretreatment Permit (15 pages)
4. Data Transmittal Packet for Activity HML2406 (11 pages)