

REPORT OF OVERSIGHT PRETREATMENT
INDUSTRIAL USER COMPLIANCE EVALUATION INSPECTION (IU-CEI)

The Durham Company
1435 N. Industrial Drive
Houston, Missouri 65483

Authorization No.: **CIU000014 / MOX039489**

BY
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 7
ENFORCEMENT AND COMPLIANCE ASSURANCE DIVISION (ECAD)
WATER BRANCH / DRINKING WATER AND INSPECTIONS SECTION (WB/DWIS)

ON
DECEMBER 10 AND 30, 2024

At the request of the Water Branch (WB), Enforcement and Compliance Assurance Division (ECAD), an oversight pretreatment industrial user compliance evaluation inspection (IU-CEI) was conducted at the Durham Company facility in Houston, Missouri on December 10, 2024. To direct the inspection, a checklist was used that evaluates all important elements of the Oversight IU-CEI. A copy of the checklist is attached to this report (Attachment 1). The inspection was performed with Mr. Michael Donley from the Southeast Regional Office of the Missouri Department of Natural Resources as a tool of evaluating the effectiveness, reliability and completeness of the State's inspection procedures in the administration of their water compliance program established pursuant to Section 402 of the Clean Water Act, as amended. This narrative report presents the findings of the inspection. Mr. Brad Allen with the Missouri Department of Natural Resources was present for this oversight inspection

PARTICIPANTS

The Durham Company

- Wilma Scott, Quality/Receiving Control wscott@durhamusa.com
- Russell Sadler, Paint Lead rsadler@durhamusa.com
- Jamie Palmer, Quality/Safety Manager jpalmer@durhamusa.com

Missouri Department of Natural Resources -Water Protection Program

- Michael Donley, Environmental Engineer Assistant Michael.Donley@dnr.mo.gov
- Brad Allen, Pretreatment Coordinator Brad.Allen@dnr.mo.gov

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

- Naji J. Ahmad, Environmental Engineer, ECAD/WB/DWIS Ahmad.Naji@epa.gov

Facility Description

The Durham Company is a manufacturer of electrical metering products such as pad mount enclosures, primary metering enclosures, and secondary connection cabinets. The facility manufacturing process is under standard industrial classification (SIC) No. 3550 consists of metal shearing, punching, forming, welding, painting and assembling of raw aluminum and steel.

The facility consists of two buildings. Building 1 and Building 2 have wash booths consisting of five tanks for each building. The five tanks are three chemical tanks for which wastewater is currently being disposed by a contract hauler and two rinse tanks that are discharged in batches to the Houston Wastewater Treatment Facility (WWTF) MO0039675. The city of Houston does not have an approved pretreatment program.

This facility is subject to the Metal Finishing categorical standard 40 CFR 433.17 for the regulated processes which are the five tanks of the wash bay that are used for powder coating. The wash bay is used to wash parts prior to painting.

Untreated wastewater from the rinse tanks is diverted into holding tanks prior to pretreatment. The facility has two separate pretreatment systems for each wash bay. each pretreatment system consists of activated carbon filter and two selective resin filters (ion exchange). The rinse water goes through the selective resin filters before being discharged to the WWTF. The industrial wastewater is discharged in batches from equalization tanks after the activated carbon filter and the two selective resin filters. Treated wastewater samples can be drawn from a nozzle at the effluent of the resin filters. Flow meters are used at each wash bay/line to measure wastewater flow.

The three spent chemical tanks are hauled away twice a year by Environmental Works. The selective resin filters have pressure gauges which help indicate when they need to be changed. Spent resin filters are hauled away to Evoqua in Minnesota via Pioneer Trucking.

Inspection Procedures

Prior notification of the inspection was provided by Mr. Donley to ensure timely access to the facility. I met with Mr. Donley off site for a pre-inspection meeting prior to entering the facility on December 10, 2024. During the pre-inspection meeting, Mr. Donley mentioned that he has been working for the Missouri Department of Natural Resources at Southeast Regional Office for approximately five years and has completed multiple pretreatment IU-CEI. However, he only received informal pretreatment training.

Mr. Donley stated that he has been to the facility and has inspected it before. He added that he had reviewed available documents including the industrial authorization, previous inspection reports, and the discharge monitoring reports prior to the inspection. Mr. Donley and I then proceeded to the Durham Company facility.

At the facility, we met with Ms. Wilma Scott, Messrs. Russell Sanders, Jamie Palmer, and Brad Allen. We introduced ourselves and presented our credentials. Mr. Donley explained the purpose and procedures of the IU-CEI. After the opening conference, we proceeded to conduct

review of required records, then the visual inspection of the facility. After the facility walkthrough, Mr. Donley conducted the formal exit meeting with site personnel.

After the exit briefing, I had a post-inspection meeting with Mr. Donley, in which we discussed his inspection. On December 30, 2024, I received via email a copy of Mr. Donley's inspection report that included Unsatisfactory Findings and Response Required (Attachment 2).

Inspection Observations

1. **Authorization:** Since the MDNR can't permit Categorical Industrial Users (CIUs) as indirect dischargers in Missouri, they issue a Fact Sheet in lieu of "Permits". The MDNR classifies the Factsheet as an "Authorization to discharge" that contains the minimum requirements for CIUs.

The Durham Company Fact Sheet (Attachment 3) was signed on November 12, 2019, and was modified on July 13, 2023.

The Fact Sheet stated that "this Fact Sheet is prepared to give pertinent information regarding the applicable regulations, effluent limitations and pretreatment requirements. Nothing in this factsheet removes any obligations to comply with other regulations in 10 CSR 20-6.100 or 40 CFR 403, and other county or local ordinances or restrictions. A Fact Sheet is intended to be an informational document and is not enforceable."

The Fact Sheet also states that "This Fact Sheet will remain in effect until facility closure or a "Notification of Changed Discharges" per 40 CFR §403.12(j) is provided. This notification of changes to the discharge may require a Baseline Monitoring Report (BMR). The BMR is the only application that used for pretreatment industries for new or modified discharge authorizations."

This Fact Sheet includes: the correct categorical effluent limitations for Metal Finishing Subpart A, 40 CFR §433.17, sampling location, self-monitoring frequency and reporting frequency, signatory requirements in 40 CFR §403.12(l) and in 40 CFR §403.6(a)(2)(ii) by a responsible corporate officer, immediate notification of potential problems, including slug loading (40 CFR §403.12(f)(2)(vi)), notification of changed discharges(40 CFR §403.12(j)), sludge disposal (40 CFR §403.8(f)(2)(iii)), general and specific prohibition of pollutants introduced to the WWT facilities, resampling requirement (§403.12(g)(2)), analytical methods requirements (§403.12(g)(5)), additional monitoring by the permittee (40 CFR §403.12(g)(6)), notification of upset condition within 24 hours of becoming aware of the upset and provide a written submission within five days as required in 40 CFR 403.16(c)(3), notification of by passes, record keeping requirements, requirement of electronic data reporting of semi-annual reports, and notice of potential problems, including slug loading (40 CFR §403.12(f)(2)(vi)).

The Factsheet also indicates that, "As the pretreatment control authority, by the department is required to inspect all CIUs at least once a year pursuant to 40 CFR 403.8(f)(2)(v). Results of all inspection will be provided the POTW and the industry."

2. **Inspection Preparation:** Mr. Donley was prepared for the inspection. He had the appropriate personal protective equipment, a camera, his laptop, and he had reviewed, the authorization, the previous inspections, and monitoring reports submitted by the facility.
3. **Inspection Procedures:** Upon entering the facility, we introduced ourselves and presented our credentials. During the opening conference, Mr. Donley explained the purpose and procedures of the CEI. These included completing the industrial user inspection checklist, evaluating self-monitoring and discharge records, and conducting a facility walk-through with photographs. Mr. Donley was confident and relaxed throughout the inspection. He established a good connection with facility personnel.

Mr. Donley utilized an inspection checklist on his laptop to take notes throughout the inspection. During the review of monitoring reports, Mr. Donley pointed out to facility personnel that the reporting of pH was not recoded on the chain-of-custody, and it did not show that a valid pH measurement was being made (violation #2). Then Mr. Donley thoroughly evaluated the water usage of the facility.

Durham personnel also mentioned that they do their own quality control measuring for zinc. Mr. Donley mentioned that it is possible, depending on the testing method, that this internal zinc measurement needs to be reported. Mr. Brad Allen will verify the monitoring method is an approved method.

After the opening conference, we proceeded to conduct the visual inspection of the facility. Mr. Donley visually inspected the two process lines, treatment system, and discharge and sampling points. During the visual portion of the inspection, Mr. Donley took several photographs to document his observations.

During the visual inspection, Mr. Donley did not look for discharges from any of the 40 process ^{Note 1} operations included in 40 CFR 433. I pointed out to Mr. Donley a sink where washing of contaminated brushes from the Aquaban coating process was taking place. The drain from the sink discharges directly to the sanitary sewer without treatment. Mr. Donley was not aware of the 40 processes. Mr. Donley then included the observation as (Violation of #1) because it is process material that should be treated before discharging.

Additionally, Mr. Donley did not evaluate the need for spill/slug discharge plan. I pointed out to him sources of potential spills such as storing of chemicals in areas without secondary containment. We determined that the facility needs to develop and implement a slug discharge control plan. Mr. Donley then included the observation as (violation #3).

Note 1: If any of those six operations are present, then this part applies to discharges from those operations and also to discharges from any of the following 40 process operations: Cleaning, Machining, Grinding, Polishing, Tumbling, Burnishing, Impact Deformation, Pressure Deformation, Shearing, Heat Treating, Thermal Cutting, Welding, Brazing, Soldering, Flame Spraying, Sand Blasting, Other Abrasive Jet Machining, Electric Discharge Machining, Electrochemical Machining, Electron Beam Machining, Laser Beam Machining, Plasma Arc Machining, Ultrasonic Machining, Sintering, Laminating, Hot Dip Coating, Sputtering, Vapor Plating, Thermal Infusion, Salt Bath Descaling, Solvent Degreasing, Paint Stripping, Painting, Electrostatic Painting, Electropainting, Vacuum Metalizing, Assembly, Calibration, Testing, and Mechanical Plating.

After the facility walkthrough, Mr. Donley conducted the formal exit meeting with facility personnel. During the exit meeting Mr. Donley summarized his observation and informed facility personnel that they should receive a notice with the report (Attachment 2). Mr. Donley also asked if the facility personnel had any questions regarding the inspection. Finally, he thanked facility personnel for their time and cooperation.

4. **Inspection Report:** I reviewed a copy of the report that Mr. Donley prepared. The report was accurate and identified all the issues discussed during the IU-CEI. Mr. Donley utilized photographs that he took during the inspection to visualize the findings of the report. Mr. Donley did include his field notes that were taken during the inspection using his laptop. The Report included the unsatisfactory findings with required response.

Conclusion

Overall, Mr. Donley showed good practices conducting the inspection and was well prepared.

The MDNR should provide Mr. Donley the opportunity to attend a formal Pretreatment Training.

Mr. Donley should review federal categorical standard(s) applicable to industries prior to inspection.

Inspectors should always evaluate all industries for the need for spill/slug discharge plans during the inspection and require the plans when needed.

NAJI AHMAD
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Date: 2025.01.18 14:44:29
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Naji J. Ahmad
Environmental Engineer

JOSEPH HEAFNER
Digitally signed by JOSEPH HEAFNER
Date: 2025.01.21
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Joe Heafner
Acting Supervisor, DWIS

ATTACHMENTS

1. Oversight Checklist
2. Inspection Report
3. Fact Sheet/Industrial User permit
4. IU-CEI Checklist

OVERSIGHT WATER COMPLIANCE INSPECTION CHECKLIST

Type of Inspection: IU OCEI OCSI

Date of Inspection/Sampling: December 10, 2024

Facility Name/Location: The Durham Company
1435 N. Industrial Drive
Houston, Missouri 65483

Facility Telephone Number: (417) 532-7121

Facility Permit Number: NPDES: MOX039489 110070389252
State: CIU000014

Participants:

Affiliation

Facility: Wilma Scott, Quality Control 417-532-1315
Russell Sadler, Paint Lead
Jamie Palmer, Safety Manager 417-532-1359

State Agency: Missouri Department of Natural Resources
Michael Donley Environmental Engineer Associate 573-840-9364
Brad Allen State Pretreatment Coordinator 573-522-3454

US EPA: US EPA Region 7- ECAD/WB/DWIS
Naji Ahmad US EPA Environmental Engineer 913-551-7190

EVALUATION (S = Satisfactory, M = Marginal, U = Unsatisfactory, N/A = Not Applicable)

Sampling Procedures:		Inspection Procedures:	
	Sampling Design	S	Procedure for Inspection
	Sampling Equipment	S	Inspection Tools
	Sampling Methodology	S	Entry Procedures
	Field Determinations	S	Permit Verification
	Documentation	S	Records & Reports Check
	Sample Preservation & Handling	S	Permit Requirements
	Chain-of-Custody	M	Facility Inspection
	Quality Assurance	S	Documentation

SECTION I. INSPECTION PROCEDURES

A.	Preparation for Inspection	YES	NO	N/A
	1. Inspector had reviewed appropriate facility files; e.g., permits, previous inspection reports, letters, correspondence, etc.	Y		
	2. Had coordinated with EPA/other State personnel.			NA
	3. Was knowledgeable of applicable regulations.	M		
	4. Had performed previous water compliance inspections.	Y		
	5. Was overall familiar with facility.	Y		
	6. Had inspected this facility previously.	Y		

Comments: The inspector was not familiar with the 40 subprocess under 40 CFR 433.

The industry is catagorical industry subject to the Metal Fininshing standard 40 CFR 433.17.

B.	Inspection Tools	YES	NO	N/A
	1. Had adequate individual safety equipment.	YES		
	2. Had brought a camera and film (recording media).	YES		
	3. Had brought copy of applicable regulations.	YES		
	4. Had brought applicable facility files and permit.	YES		
	5. Had brought appropriate inspection forms.	YES		
	6. Had brought adequate writing material.	YES		

Comments: Inspector brought his laptop

C. Entry Procedure	YES	NO	N/A
1. Attempted to contact designated official representative.	YES		
2. If designated official was not available, inspector determined that spokesperson was authorized to speak for the facility.			NA
3. Was prior notification provided to the facility?	YES		
4. If entry was denied, did the inspector follow established State procedures?			NA
5. Did inspector present his/her credentials or other ID?	YES		
6. Did inspector establish authority for the inspection?	YES		
7. Did inspector explain reason, scope and procedure for inspection?	YES		
8. Did inspector explain facility's rights to confidentiality of information obtained during inspection?	YES		

Comments: _____

D. Permit Verification	YES	NO	N/A
1. Inspector obtained information on current processes/operations at facility?	YES		
2. Identified sources and quantified waste streams.	YES		
3. Methods of treatment of wastewater and disposal of sludge were determined or verified.	YES		
4. Description of facility contained in permit/permit application was verified.	YES		
5. New or different processes/operations were noted.	YES		
6. Number and location of discharge points were verified.	YES		
7. Verified that all outfalls were permitted.	YES		
8. Verified that name and address of facility were correct.	YES		

Comments: _____

E. Records and Reports Check YES NO N/A

1. Did the inspector inspect and evaluate the following records in detail?			
a. Monitoring records	YES		
b. Calibration and maintenance records	YES		
c. Facility operating records	YES		
d. Records of contributing industries			NA
e. Quality assurance records			NA
2. Did inspector verify that the self-monitoring records included:			
a. Date, time and location of samples collected or measurement made	YES		
b. Person collecting sample or making measurement	YES		
c. Sample analysis date	YES		
d. Individual performing sample analyses	YES		
e. Analytical methods/techniques used	YES		
f. Analytical results	YES		

Comments: The inspector noted that the only time pH was mentioned was from the lab analysis part. For a pH measurement to be valid, it needs to be measured within 15 minutes of the sample collection.

F. Permit Requirements YES NO N/A

1. Did inspector evaluate the following to determine adequacy:			
a. Flow measurement			NA*
b. Sampling procedures	YES		
c. Laboratory practices			NA
d. Operation and maintenance	YES		
e. Monitoring of industrial contributors			NA
2. Did inspector determine status of facility in meeting compliance schedule?			NA
3. Did inspector evaluate sludge management/disposal practices?	YES**		
4. Did inspector evaluate industrial pre-treatment program?	YES		

Comments: *The inspector verified water balance. He reviewed and evaluated the water bills to verify water usage at both buildings.

Inspector also verified that flow meters are used at each wash line to measure wastewater flow.

G. Facility Inspection YES NO N/A

1. Did inspector visually inspect and evaluate treatment facilities to verify adequacy of operation and maintenance?	YES		
2. Did inspector visually inspect and evaluate the condition of the receiving stream?	YES		NA
3. Did inspector verify accuracy of information on operation of facility by visual observation; 2.g., flow pattern, number and location of discharge points, bypasses?	YES		
4. Were photographs taken to document deficiencies or violations?	YES		
5. Were apparent or actual operational and/or maintenance problems noted?	M*		

Comments: *The inspector did not initially look for potential spill/slug discharge and the need for spill controll plan.

H.	Documentation	YES	NO	N/A
	1. Did inspector take adequate notes?	YES		
	2. Did inspector obtain photocopies of specific records, reports, etc. to document deficiencies?	YES		
	3. Did inspector complete applicable inspection forms to document results of inspection?	YES		
	4. Did inspector take photographs to document observations?	YES		

Comments: Inspector used his laptop to document notes.

I.	Exit Procedures and Post-Inspection Report Review	YES	NO	N/A
	1. Did inspector summarize for the facility representatives all deficiencies observed? If yes, were the deficiencies accurately and completely characterized?	YES		
	2. Did inspector articulate that a report describing the findings of the inspection would be drafted and sent to the facility?	YES		
	3. Did inspector communicate expectations for correction of any deficiencies, including a timeframe for completion?	YES		
	4. Did the state report accurately and completely capture all of the deficiencies that the inspector observed and/or recommendations that the inspector discussed with the facility representatives?	YES		

Comments: _____

SECTION II. SAMPLING PROCEDURES

A. Sampling Design **NA**

1. Sampling Locations	YES	NO	N/A
a. Adequate to obtain representative samples			
b. Correspond with permit to determine status with effluent limitations			
c. Consistent with objectives of inspection			
d. Adequate to segregate multiple waste streams			

2. Parameters to be Analyzed	YES	NO	N/A
a. Correspond with permit to determine compliance status with effluent limitations			
b. Adequate to meet any special objectives of the inspection; e.g., toxics, bio-monitoring, pretreatment			

3. Type of Samples	YES	NO	N/A
a. Correspond with permit for each parameter			
b. Adequate to obtain representative results			
c. Consistent with parameters to be analyzed			

4. Sampling Duration	YES	NO	N/A
a. Correspond with permit requirements for each parameter			
b. Adequate to obtain representative data			
c. Consistent with objectives of the inspection			

Comments: _____

B. Sampling Equipment

1. Sampling Personnel:	YES	NO	N/A
a. Were thoroughly familiar with function and use of equipment.			
b. Had adequate individual safety equipment; e.g., hard hat, safety shoes, safety glasses.			

2. Intermediate Sample Containers; e.g. buckets:	YES	NO	N/A
a. Had been properly cleaned prior to use.			
b. Were made of material compatible for use in collecting samples for the parameters to be analyzed; e.g. glass versus plastic.			

3. Automatic samplers:	YES	NO	N/A
a. Had been properly cleaned prior to use; e.g., tubing, compositing container(s), etc.			
b. Had been maintained in accordance with established procedures; e.g., desiccant replaced, pump tubing replaced, battery recharged.			
c. Had been checked for proper functioning prior to use.			
d. Were properly equipped to collect samples for the parameters to be analyzed; e.g., Tygon versus Teflon tubing, glass versus plastic.			
e. If the facility's automatic sampler was utilized, was the adequacy of the device verified?			

4. Sample Containers:	YES	NO	N/A
a. Were adequate to obtain sufficient volume of the parameters to be analyzed.			
b. Had been properly prepared prior to use; e.g., for fecal coliform, organics.			
c. Were made of material compatible with the parameters to be analyzed.			

Comments: _____

C. Sampling Methodology

1. Grab Sampling:	YES	NO	N/A
a. Grab sampling techniques were adequate to obtain representative samples.			
b. Samples were collected directly into sample containers, when possible.			
c. When used, intermediate sample containers were rinsed three times with waste stream prior to collecting actual sample (except for oil & grease, fecal coliform).			
d. Samples were collected at a location where there was adequate mixing in the waste stream.			
e. Samples were adequately mixed during pouring operations.			

2. Composite Sampling:	YES	NO	N/A
a. Composite sampling techniques were adequate to obtain representative samples.			
b. Intake for automatic sampler placed in well-mixed portion of waste stream; e.g., mid-channel at 0.4-0.6 depth.			
c. Intake tubing length was kept to a minimum.			
d. Sags in intake tubing were avoided.			
e. Aliquot volume was checked during setup (a minimum of 100 mL is recommended for each aliquot).			
f. Total composite sample consisted of at least 8 discrete aliquots.			
g. Samples (either each aliquot or total composite) were thoroughly mixed during pouring operations.			

Comments: _____

D. Field Determinations

1. pH:	YES	NO	N/A
a. Meter was adequate to accurately perform determinations.			
b. Meter was standardized in accordance with current accepted procedures prior to use.			
c. Determinations were performed in accordance with accepted procedure.			
d. When a measurement revealed a violation of limits, the meter was re-standardized and the measurement of the sample performed again.			

2. Temperature:	YES	NO	N/A
a. The accuracy of the thermometer had been determined prior to use.			
b. The thermometer was in good condition to yield accurate results.			
c. Measurements were performed in accordance with current accepted procedures.			

3. Dissolved Oxygen:	YES	NO	N/A
a. If a meter was used, it had been standardized in accordance with current accepted procedures prior to use.			
b. If the Winkler titration method was used, the sample was preserved properly upon collection.			
c. The determinations were performed in accordance with accepted procedures.			

4. Flow Measurement	YES	NO	N/A
a. When the facility's flow monitoring equipment was used, the accuracy and reliability of the equipment was determined and verified.			
b. When flow monitoring equipment was installed, it was installed properly.			
c. The measurement of flow corresponded with the period of composite sampling.			

Comments: _____

E.	Documentation	YES	NO	N/A
	1. The sample collection effort was adequately documented; e.g., the time/date, location and sample collector were included in the field records.			
	2. The time/date, location and analyst were recorded for all field determinations.			
	3. Accurate field notes were maintained regarding any observations and/or unusual occurrences during the sampling period.			
	4. All samples, except for those analyzed in situ, were properly identified with a sample tag/label.			
	a. The sample tag/label was moisture resistant, could withstand field conditions and was securely attached to each sample container.			
	b. Each sample tag/label indicated the discrete sample number, date/time of collection, sample collector, parameters to be analyzed and preservation.			

Comments: _____

F.	Sample Handling	YES	NO	N/A
	1. When the facility's flow monitoring equipment was used, the accuracy and reliability of the equipment was determined and verified.			
	2. When flow monitoring equipment was installed, it was installed properly.			
	3. The measurement of flow corresponded with the period of composite sampling.			

Comments: _____

G. Chain of Custody	YES	NO	N/A
1. An accurate written record (custody record) was maintained to document the possession of each sample from the time of collection until receipt by the lab.			
2. The samples were in sample collector's actual possession, in sampler's view after being in physical possession, or were locked up to prevent tampering at all times.			
3. Custody seals or tape or other secure means were used when samples were shipped via commercial means to the laboratory.			
4. The procedures used were consistent with established State procedures.			

Comments: _____

H. Quality Assurance	YES	NO	N/A
1. Procedures were established to include this aspect in field sampling activities.			
2. Duplicate samples were collected in accordance with established procedures.			
3. Adequate documentation was maintained.			

Comments: _____
