REPORT OF COMPLIANCE SAMPLING INSPECTION (CSI) & INDUSTRIAL STORMWATER

COMPLIANCE SAMPLING INSPECTION(CSI)

AT

CIRCLE D CORPORATION
613 NORTH ASH STREET HILLSBORO, KANSAS 67063

KANSAS PRETREATMENT PERMIT: KSP000034

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 7
ENFORCEMENT AND COMPLIANCE ASSURANCE DIVISION

ON
JANUARY 17, 2023

INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division, Water Branch, I conducted a Compliance Sampling Inspection and an Industrial Stormwater Compliance Evaluation Inspection at Circle D Corporation on January 17, 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

Circle D Corporation
Kem Chisolm, Payroll Manager, 620-947-2385, ap@circle-dtrailers.com

U.S. Environmental Protection Agency (EPA), Region 7
Brian D'Alfonso, Biologist, 913-551-5095, dalfonso.brian@epa.gov

INSPECTION PROCEDURES

Facility personnel were not notified prior to the inspection. I arrived at the facility unannounced at approximately 11:30 am on January 17, 2023, introduced myself, presented my credentials to Mr. Chisolm, and explained the purpose and procedures of

the inspection. I completed the Region 7 Industrial User (Attachment 1) and Industrial Stormwater Checklists (Attachment 2) and then conducted a walk-through of the manufacturing process, concentrating on the wastewater generation process and stormwater. Photos were taken during my inspection (Attachment 3). An exit briefing was conducted with Mr. Chisolm prior to leaving the facility.

FACILITY DESCRIPTION

The Circle D Corporation manufactures steel fifth wheel trailers including flatbed trailers and livestock trailers, along with steel pickup truck flatbeds. Raw materials utilized in the process consist of cold rolled steel that is received by the facility in sheets along with structural shaped steel that includes angle, flat, and channel. The majority of the raw materials received are sheet metal or pre-cut panels. The materials are cut to size as necessary and punching or drilling of holes is conducted; however, welding is the primary mechanism to assemble the trailer or truck-bed.

The facility has been in operation at the present location for thirty-two years. The facility has one designated outfall according to the facility's Kansas Department of Health and the Environment (KDHE) Pretreatment Permit. The regulated wastes from the facility, consists of wastewater generated from the phosphatizing pressure washing operation conducted prior to painting. A phosphoric acid detergent (photo 3) is mixed with water (through the pressure washer system) and utilized in the process to prep the metal surfaces for painting in order to remove dirt and oil. In addition, a small amount of degreaser (photo 4) is also applied to the products prior to washing, to approximately 30% of the trailer, via a hand pump sprayer. After the materials are washed with the phosphoric acid detergent, they are then rinsed with water. The wash and rinse water from the facility's wash bay is diverted to a sump located in the floor of the wash bay (photos 1, 2 & 11), listed as Outfall #001 in the permit, and then the wastewater is discharged to the City of Hillsboro's wastewater treatment collection system.

No sludge is generated from the manufacturing process, however dirt and debris collected in the bottom of the sump is removed as needed, once or twice per year. The sump is cleaned out and the material is air dried and disposed of with the City of Hillsboro trash service. The amount of debris collected per year combined is approximately one 55-gallon barrel per year.

The facility is subject to the 40 C.F.R. Part 433 Metal Finishing Regulations for new sources.

SAMPLING PROCEDURES

The facility discharges process wastewater daily and the facility was discharging at the time of the inspection. Grab samples of the effluent were collected from Outfall 001 after the facility walk-through was completed. The grab samples were collected from the sump

in the wash bay. The sample collection location is the designated facility outfall and the facility's compliance monitoring location, prior to wastewater entering the City of Hillsboro's sanitary sewer system. The effluent samples were preserved as appropriate and packed with ice to maintain a temperature below 4°C.

After the samples were collected, I then transported the samples to the EPA Region 7 Science and Technology Center's laboratory for analysis. 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. A summary of the results from the sample analysis are provided below in Section 7 (Sample Results) of this report.

On January 17, 2023, I collected grab samples from outfall 001. I collected adequate volumes of sample using a glass sampling container and poured them into clean, pre-labeled polyethylene containers for the analysis of biological oxygen demand (BOD), non-filterable solids (NFS), ammonia (NH3), total kjeldahl nitrogen (TKN), nitrate/nitrite (NO3/NO2), total nitrogen (TN), total phosphorus (TP), cadmium (CD), copper (CU), lead (Pb), nickel (NI), silver (AG) and zinc (ZN). At the time of sampling, I preserved the NH3, TKN, NO3/NO2 and TP samples with sulfuric acid (H2SO4), and the metals samples with nitric acid (HNO3). I collected a separate grab sample from the same location to measure pH and temperature using a field meter. The analyses using the field meter were conducted within 15 minutes of collecting the sample. The pH result collected from Outfall 001, was recorded at 6.82 S.U. The temperature of the effluent was measured at 12.6°C.

After sampling, I placed the samples I collected on ice in an insulated cooler, sealed the container, and shipped it overnight to the EPA Region 7 Science and Technology Center (STC) for analysis. Electronic field sheets and electronic chain of custody forms were emailed to the STC each day after samples were shipped or. I followed Region 7 Laboratory Services and Applied Science Division (LSASD) standard operating procedures in the collection, packaging, transportation, and handling of the samples.

FINDINGS AND OBSERVATIONS

1. **Permit:** A Kansas Pretreatment Permit for Circle D Corporation became effective on October 21, 2022, and will expire September 30, 2027 (Attachment 4). The permit requires the facility to monitor its effluent for flow, pH, metals (cadmium, chromium, copper, lead, nickel, silver, and zinc), cyanide, and Total Toxic Organics. The permit further requires the facility to sample and analyze the parameters on a quarterly basis and submit discharge monitoring reports (DMRs) to the KDHE on a semi-annual basis, by January 28 and July 28 of each year.

The facility's permit lists one outfall that is required to be sampled. Outfall 001 requires a grab sample to be collected from the wash bay sump.

The facility was last inspected by KDHE on October 24, 2018 (Attachment 5). The facility was found to be in "compliance" but had three "conclusions/recommendations": the solvent management plan needed to be updated, monitoring reports need to be signed by an "authorized representative" and the facility's sampling procedure should be modified.

2. Plant Operations: The facility operates one eight-hour shift five days per week. The number of full-time employees at the facility consisted of 26 personnel at the time of inspection.

3. **Discharge Monitoring Reports:** I reviewed the facility's DMR compliance status reports from January 2020 through July 2022 (Attachment 6). No effluent limit violations were found in my review.

4. **Water Balance:** An accurate water balance was achieved during the inspection. The facility utilizes one source of water (City of Hillsboro). Mr. Chisolm provided the water purchase records from the facility for the time period of December 2021 through November 2022. Water purchased during this time period equaled approximately 14,000 gallons per month or approximately 700 gallons per day. Reported discharge flows from the facility DMRs were estimated at approximately 650 GPD. The facility utilizes a small amount of water in routine cleaning operations in addition to the domestic usage from the 26 employees of approximately 50 GPD. This is less than the range of 5 to 25 gpd which is considered normal domestic usage.

5. **Solvent Management Plan:** Because the facility is subject to the Metal Finishing standards, it has a requirement to meet a daily maximum limit of 2.13 mg/1 for Total Toxic Organics. However, Circle D Corp. is allowed to certify compliance with the TTO standard because they have developed and are following a solvent management plan (SMP). At the time of inspection, Mr. Chisolm stated he did not know where the SMP was, but once he found it he would submit it to me. I asked if the facility had updated the SMP for any new solvents being used, and he said he was not sure. This was noted as item #1 on the Notice of Preliminary Findings left on-site after the inspection. Mr. Chisolm emailed the SMP to me after the inspection (Attachment 7).

6. Wastewater Treatment: Treatment of the wastewater from the facility consists of the pH adjustment of the phosphoric acid detergent being mixed with water. The facility conducts daily and regular monitoring of the pH levels to ensure that the wastewater meets the acceptable pH permit range between 5.0 and 10.0 and to ensure the adequate amount of detergent is being applied to the materials to ensure proper cleaning prior to painting. The water to detergent ratio is approximately 75:1 and the pH of the detergent is approximately 4.0 S.U. After the solution is mixed with water the pH is raised and maintained to approximately 6.0 S.U.

7. **Sample Results:** Analytical results of the effluent samples collected during this inspection are provided in the table below. I reviewed the effluent sample data in the table and found that all regulated pollutants met the permit limits, from the samples

collected from Outfall 001. Complete analytical results from the inspection are included in Attachment 8.

As described in Attachment 8, for results followed by a J, the analyte is acceptable; the reported value is an estimate. For results followed by a U, the analyte was not detected at or above the reporting limit. The number that is shown is the reporting limit. For results followed by an L, the quantitation is biased lower due to the results being outside the range of the dilutions performed, thus the actual values are expected to be higher than the reported values.

Parameter	(November 16) Sample # 2	Permit Limits[1](mg/L)
BOD (mg/L)	539 L	NA
NH3 (mg/L)	1.39	NA
NFS (mg/L)	160.0 J	NA
TKN (mg/L)	15.0	NA
NO3/NO2 (mg/L)	0.425 J	NA
TN (mg/L)	15.4 J	NA
TP (mg/L)	167.0	NA
CD (mg/L)	ND	0.07
CR (mg/L)	.029	1.71
CU (mg/L)	0.744	2.07
PB (mg/L)	ND	0.43
NI (mg/L)	.032	2.38
AG (mg/L)	ND	0.24
ZN (mg/L)	0.378	1.48
pH (S.U.)	6.82	5.0-10.0
Temp (ºC)	12.6	NA

1 Permit limits are monthly averages. Permit limits for pH are minimum followed by maximum
2 "ND" denotes a non-detect result

8. **Stormwater:** During the inspection, I observed the facility's stormwater system (photos 5-10). The facility is required to obtain coverage under the KDHE Stormwater Runoff from Industrial Activity General Permit. At the time of inspection, Mr. Chisolm did not know if the facility was covered by the permit or if the facility had a Stormwater Pollution Protection Plan (SWPPP), which is required by the general permit. The facility was also unable to provide a copy of their Notice of intent (NOI). This was noted as items #2 and #3 on the NOPF that was left on-site. After the inspection, Mr. Chisolm emailed me a copy of the facility's SWPPP (Attachment 9). The SWPPP that I was given was prepared in 2014. Review of the SWPPP shows it to be out of date and the facility did not provide any documentation they are conducting annual comprehensive site evaluations as required by the general permit and the facility's SWPPP. The SWPPP provided had a blank copy of the NOI but did not include the facility's completed and signed NOI. This is noted as item #4 in the summary of this report.

Stormwater from the facility generally runs north across the facility. The facility's SWPPP states that there are two outfalls, with outfall 001 located west of the steel warehouse on the north border of the property and the other outfall located at the northeast corner of the property. The facility's SWPPP map also shows flows going to the southeast corner of the property but described as sheet flow in the SWPPP.

Due to the age of the SWPPP and the fact that it was written with regards to an outdated KDHE general permit, the SWPPP and site map need to be updated to include current practices and buildings. The KDHE general permit requires the facility to re-evaluate and modify the SWPPP in a timely manner. This is noted as item #5 in the summary of this report.

The KDHE general permit requires that the facility conduct training for current and new employees. The facility's SWPPP requires that training is conducted on an annual basis. Mr. Chisolm stated that he did not know of any stormwater training that had been conducted, and the facility did not have any record of stormwater training. This is noted as item #6 in the summary of this report.

The KDHE general permit and the facility's SWPPP both require that the facility conduct, at minimum, quarterly facility inspections. At the time of inspection, Mr. Chisolm located some inspection records. I asked Mr. Chisolm to submit three years of inspection records. After the inspection, Mr. Chisolm emailed me inspection records (Attachment 10) that went from July 2020 through April 2021. This is noted as item # 7 in the summary of this report.

9. **Summary:** During the exit briefing on January 17, 2023, I went over the facility's rights to claim confidential business information. The facility did not make any claims of confidentiality (Attachment 11). During the exit briefing I issued a NOPF for the following (Attachment 12):

    1) Ensure solvent management plan is current and up to date.

    2) Failure to have a Stormwater Pollution Prevention Plan (SWPPP).

    3) Ensure facility has coverage under state Industrial Stormwater General Permit.

    After the inspection, the following findings were determined:

    4) Failure to conduct annual comprehensive site evaluations.

    5) Failure to re-evaluate and modify SWPPP as required.

    6) Failure to conduct annual stormwater training as required.

    7) Failure to conduct facility inspections as required.

No response to the NOPF was received after the inspection.

BRIAN D'ALFONSO
Digitally signed by BRIAN D'ALFONSO
Date: 2023.03.27 09:27:05 -05'00'

Brian D'Alfonso
Life Scientist

Moran, Nicole
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Nicole Moran
Section Chief, WB/DWIS

Attachments:

1. EPA Industrial User Inspection Checklist (6 pages)
2. Industrial Stormwater Checklist (6 pages)
3. Facility Photos (7 pages)
4. Pretreatment Permit (16 pages)
5. October 14, 2018 KDHE Inspection Report (4 pages)
6. DMR Reports from Facility (87 pages)
7. Solvent Management Plan and Water Purchase Records (4 pages)
8. Sample Analysis Results for ASR # 8331 (17 pages)
9. Circle D 2014 SWPPP (147 pages)
10. Stormwater Inspection Records (19 pages)
11. Signed CBI form (4 pages)
12. January 17, 2023 NOPF (1 page)