

REPORT OF THE PRETREATMENT COMPLIANCE INSPECTION  
AT

**City of Council Bluffs, Iowa**  
City Hall  
209 Pearl Street  
Council Bluffs, Iowa 51501  
NPDES Permit No.: IA0036641

BY  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 7  
ENFORCEMENT AND COMPLIANCE ASSURANCE DIVISION (ECAD)  
WATER BRANCH / DRINKING WATER AND INSPECTIONS SECTION (WB/DWIS)  
ON  
March 14, 15, and 16, 2023

At the request of the Water Branch (WB), Enforcement and Compliance Assurance Division (ECAD), a pretreatment compliance inspection was conducted of the Council Bluffs, Iowa approved Pretreatment Program on March 14, 15, and 16, 2023. To direct the inspection, a checklist was used that evaluates all important elements of the Pretreatment Program. A copy of the checklist is attached to this report (Attachment 1). The inspection consisted of a discussion and file review with the City's program staff. The inspection included two site visits to Sapp Bros. and Speedco. All other documentation not included as an attachment to this report has been submitted directly to the Region 7 Records Center.

**PARTICIPANTS**

**City of Council Bluffs**

- Helen Woodard, Chemist, Pretreatment Coordinator
- Don P. Hudgell III, Superintendent, Water Pollution Control Plant

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

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

**INTRODUCTION**

The City of Council Bluffs, with a population of 62,415 at the 2020 census, owns and operates an activated sludge/trickling filter Water Pollution Control Plant (WPC) under the National Pollutant Discharge Elimination System (NPDES) permit number IA0036641, which will expire on November 30, 2025. The WPC is located at 18238 Applewood in Council Bluffs, Iowa.

According to the NPDES permit (Attachment 2), the WPC has an average dry weather (ADW) flow of 6.500 million gallons per day (MGD), an average wet weather (AWW) flow of 14.00 MGD, a maximum wet weather (MWW) flow of 17.900 MGD, a design 5-day biochemical

oxygen demand (BOD5) load of 31,100 lbs./day, and a design Total Kjeldahl Nitrogen (TKN) load of 2,035.00 lbs./day

The WPC receives discharges from 14 Significant Industrial Users (SIUs) that make up about 20 percent of the WPC actual dry weather influent of 6.500 MGD.

The WPC discharges into the Missouri River via outfall 001. According to City personnel, the average actual flow at the WPC is between 5.5 to 6.5 MGD. All biosolids generated from the activated sludge are land applied. During 2022, the City land applied 1,349 dry metric tons.

Of the 14 industries currently regulated by the City (Attachment 3), two are categorical industries (CIUs). Omaha Standard Palfinger which manufactures truck bodies and is subject to the Metal Finishing standard 40 CFR, Part 433.16, and Central Life Science, a manufacturer of animal health supplements and products and is subject to the Pharmaceutical Manufacturing standard 40 CFR, Part 439.

Two of the industries are located outside the city limits. Those two are: Bunge North America and CBI Southlands (Google) facility.

Bunge North America, ConAgra Frozen Foods, Swift (Plumrose USA) #1, Swift (Plumrose USA) #2, and Tyson are all food packaging plants. Buckeye Terminal, a tank farm, Searle/Red Giant Petroleum, and Union Pacific Railroad each has the potential of discharging contaminated storm water to the WPC.

The CBI Manawa (Google Veterans Memorial Highway) facility discharges >25,000 gallons per day (gpd) of server cooling blowdown water and self-monitors twice per month for TSS, Chlorides, Sulfates and Molybdenum and discharge flows (daily). The CBI Southlands (Google) facility discharges >25,000 gpd from their cafeteria.

MidAmerican Energy reports total flows and metal analysis from Unit #3 backwash and the fly ash pit leachate. Council Point Water Treatment Plant is self-monitoring and submits monthly reports.

In 2021 and 2022, the City dropped 4 industrial user permits from its list. Those are:

1. U.S. Pipe (Griffin Pipe): the building was demolished.
2. Horseshoe Dog Track: the track and the knell were removed.
3. Consolidated Concrete: Permit was not renewed because no discharge.
4. The City consolidated the Swift #2 North outfall and the Swift #2 South outfall into one permit. The permit is now under Swift (Plumrose USA) #2.

The current NPDES permit includes the requirement for the City to evaluate the adequacy of its local limits to meet the general prohibitions against interference and pass through listed in 40 CFR 403.5(a) and the specific prohibitions listed in 40 CFR 403.5(b), and submit a report of the evaluation no later than December 1, 2021. The City completed and submitted such evaluation

on December 14, 2020 (Attachment 4). The evaluation resulted in no change to the 2016 local limits.

The previous permit also required the City to evaluate the adequacy of its local limits and complete an evaluation of its approved Pretreatment Program and any amendments for compliance with 40 CFR 403 and Iowa Administrative Code 567 - Chapter 62, specifically with regards to the pretreatment streamlining rule published in the Federal Register on October 14, 2005. Both evaluations were due by January 1, 2016. The City submitted its SUO and its local limits evaluation to the Iowa Department of Natural Resources (IDNR) on December 15, 2015. The IDNR approved the new daily mass limits and the revised SUO on July 29, 2016. On October 10, 2016, the City adopted the SUO (No. 6282) to include the new limits and changes.

### **FINDING AND OBSERVATIONS**

1. According to City records, the last formal Industrial Waste Survey (IWS) was completed in 2012. During the 2019 Audit, I informed the City that they should conduct a survey to adequately update the list of their industrial users. Ms. Woodard mentioned that soon after my 2019 Audit, the City attempted to get a list of entities connected to the City water supply from Council Bluffs Water Works, but they refused to provide the list of accounts to the Pretreatment Program. I informed City personnel that I will provide them with a list of entities located in Council Bluffs from the Reference Solutions database.
2. The City continues to implement an adequate Hauled Waste Program. Staff of the WPC continues to accept hauled waste at a manhole just before the headworks. Records of domestic waste, grease, leachate from the fly ash pond operated by the power plant, and leachate from the Iowa Waste Service (Loess Hills Regional Sanitary Landfill) located in Malvern, Iowa are well kept (Attachment 5). The City accepts between ten to twenty 500-1,500-gallon loads per month of waste from haulers. The City does not issue permits to haulers; however, it requires each hauler to complete and sign a manifest indicating the name of the hauler, volume, source, and date of the waste prior to accepting the waste. WPC staff randomly observe the discharge and randomly check the pH of that waste. In addition, the City would randomly require laboratory analysis of nondomestic waste.
3. Three industries were not inspected by the WPC in the past twelve months.
  - a. The City does not inspect the two CBI (Google) facilities, but the City requires them to self-monitor and report twice per month. Ms. Woodard explained that she was told by the previous PC that the two facilities were “‘*inspected by exception*’ because they were issued a discharge authorization and not a discharge permit. Discharge authorizations have all been eliminated and changed over to discharge permits now.” She added that, “the two facilities are on her schedule for inspections this year”.
  - b. MidAmerican-Walter Scott Energy Center was not inspected, nor was it sampled in 2021 and 2022 because no backwash was conducted.
  - c. Consolidated Concrete was not sampled nor inspected in 2021 (permit was terminated).
  - d. Searle-Red Giant was not sampled in 2021 and 2022 (no discharge).

4. Inspection reports are filed in the industry's files. Inspections are performed annually by the Pretreatment Coordinator using Region 7 Industrial User Inspection Checklist. However, during my review of some of the inspection reports (Attachment 1, III.D.), the reports were handwritten and were difficult to read, and some of the questions on the inspection reports were left unanswered. The most important was the evaluation for the need for the Slug Control Plan (SCP). This observation was identical to my observation during the 2019 Audit.
5. I pointed out to City personnel that since the City conducts the analyses for some of its SIUs, those permits should include a statement indicating that the industry should be responsible for the self-monitoring, in case the City is unable to collect and analyze the sample.
6. During my review of Omaha Standard Palfinger files, I pointed out to City personnel that the Spill Control Plan/Solvent Management Plan was not on file. Ms. Woodard immediately contacted the facility and requested the plan (Attachment 6). The plan was originally developed in 2000 and revised and signed on March 28, 2018. I informed Ms. Woodard that such plans are significant to the industry's compliance determination and the plan must be reviewed for adequacy in order to be approved for implementation in lieu of monitoring for total toxic organics (TTO). I also explained that not having adequate plan means that the facility and the City both failed to sample for TTOs as required by the Metal Finishing Standard 40 CFR, Part 433.
7. During my review of Omaha Standard Palfinger permit, I pointed out to Ms. Woodard that the permit allowed the facility to exceed the zinc daily maximum and zinc monthly average Categorical limit listed in 40 CFR 433.16, six times a year. I also pointed out that the permit cannot allow the CIU to exceed a Categorical limit, rather permits can impose a more stringent limit.
8. The City appeared to take proper enforcement by following its Enforcement Response Plan (Attachment 7). The 2021 and 2022 annual reports (Attachment 8) indicated that in 2022, the City took 23 enforcement actions, collected \$1,500, and published one significant violator. In 2021, the City took 23 enforcement actions and collected \$1,100.
9. During my interview with program personnel, we discussed the issue of two unpermitted truck maintenance facilities that have been discharging petroleum substance, most likely used motor oil, and fuel filters into the City's sanitary sewer system and interfering with lift station 23-24 pumps which caused the City to spend over \$5,000 in extra cleaning and maintenance costs. Records indicated that the Pretreatment Program collected a \$2,475.57 fine to recover some of the extra cleaning and maintenance cost. However, the City's collection system crew continues to experience repeated issues. Therefore, Ms. Woodard and I visited both facilities:
  - a. Speedco (2423 South 24<sup>th</sup> Street.): there was evidence of oil leaving the site into the City's storm inlet from one leaking trash dumpster in the back of the facility. The one dumpster had significant deposit oil and the ground in the vicinity of the two dumpsters had oil stains and oil sheen as well. The facility manager denied that this was oil and claimed that they have no control over people dumping oil and oily material in their dumpster. The facility has over 10,000 gallons of petroleum products stored indoor in above ground

storage tanks within containment. The facility manager was unable to verify if the facility has a Spill Prevention, Control, and Countermeasure Plan (SPCC) under 40 CFR part 112.

- b. Sapp Bros. (2608 South 24<sup>th</sup> Street): I did not observe ground discoloration in the vicinity of the facility's parking lot. The facility has over 10,000 gallons of petroleum products stored indoor in above ground storage tanks within containment. The facility manager was unable to verify if the facility has a SPCC plan under 40 CFR part 112. Facility personnel were very cooperative and had already hired an environmental consultant to reevaluate and improve good housekeeping practices.

10. One function of the Pretreatment Program is to protect the WPC's sludge from metals contamination. As part of this inspection, the most recent two calendar years of sludge monitoring reports (Attachment 9) were reviewed to determine the Pretreatment Program's effectiveness. Below are the tables that compare the WPC's peak observed metals levels for 2021 and 2022 against the statutory ceiling and the WPC's average level against the exceptional quality (EQ) sludge level specified by the 40 CFR Part 503 Sludge regulations. Because the WPC sampled its sludge once per quarter, the monthly average is the maximum value observed. In 2021, the WPC generated 1130.5 dry metric tons of sludge (dmt), and 1,349 dmt in 2022.

**Table 1, 2021 WPC's Sludge Quality (mg/kg)**

| Pollutant       | 503 Ceiling | 503 EQ | Max   | Mo. Avg. | Max/Ceiling | Avg./EQ |
|-----------------|-------------|--------|-------|----------|-------------|---------|
| Arsenic (As)    | 75          | 41     | 9.4   | 9.4      | 12.53%      | 22.93%  |
| Cadmium (Cd)    | 85          | 39     | 4.1   | 4.1      | 4.82%       | 10.51%  |
| Copper (Cu)     | 4,300       | 1,500  | 436.1 | 436.1    | 10.14%      | 29.07%  |
| Lead (Pb)       | 840         | 300    | 33.3  | 33.3     | 3.96%       | 11.10%  |
| Mercury (Hg)    | 57          | 17     | 0.94  | 0.94     | 1.65%       | 5.53%   |
| Molybdenum (Mo) | 75          | ----   | 42.2  |          | 56.27%      |         |
| Nickel (Ni)     | 420         | 420    | 73.5  | 73.5     | 17.50%      | 17.50%  |
| Selenium (Se)   | 100         | 36     | 14.9  | 14.9     | 14.90%      | 41.39%  |
| Zinc (Zn)       | 7,500       | 2,800  | 1048  | 1048     | 13.97%      | 37.43%  |

**Table 2, 2022 WPC's Sludge Quality (mg/kg)**

| Pollutant       | 503 Ceiling | 503 EQ | Max   | Mo. Avg. | Max/Ceiling | Avg./EQ |
|-----------------|-------------|--------|-------|----------|-------------|---------|
| Arsenic (As)    | 75          | 41     | 7.2   | 7.2      | 9.60%       | 17.56%  |
| Cadmium (Cd)    | 85          | 39     | 2.8   | 2.8      | 3.29%       | 7.18%   |
| Copper (Cu)     | 4,300       | 1,500  | 371.3 | 371.3    | 8.63%       | 24.75%  |
| Lead (Pb)       | 840         | 300    | 29    | 29       | 3.45%       | 9.67%   |
| Mercury (Hg)    | 57          | 17     | 0.75  | 0.75     | 1.32%       | 4.41%   |
| Molybdenum (Mo) | 75          | ----   | 23.1  |          | 30.80%      |         |
| Nickel (Ni)     | 420         | 420    | 20    | 20       | 4.76%       | 4.76%   |
| Selenium (Se)   | 100         | 36     | 11.5  | 11.5     | 11.50%      | 31.94%  |
| Zinc (Zn)       | 7,500       | 2,800  | 1053  | 1053     | 14.04%      | 37.61%  |

The two tables above show that the WPC's sludge is below both the ceiling level and EQ level for all metals.

### **CONCLUSION AND RECOMMENDATIONS**

Overall, the City continues to implement its Approved Program and continues to improve it. However, I observed and pointed out the following:

1. The City should conduct Industrial Waste Surveys (IWS) to ensure that all industrial and commercial contributors are accounted for. All IWS should be documented, and the records maintained. This was noted by the EPA during the 2019 Audit.
2. The City should revisit industrial permits and evaluate the verbiage, especially as indicated above (Attachment 1, III.C.). Permits should have a clear format, include standard conditions, and reference the Categorical standard and Categorical limits if applicable. Permits not allow the exceedance of Categorical limits.
3. To continue verifying compliance with applicable requirements, the City should conduct more thorough inspections of its industries. Inspections should consist of a facility walkthrough, records review, and an evaluation of the need for a Spill Plan and/or Slug Control Plan, if applicable. In addition, the City should clearly (typed rather than handwritten) complete the entire industrial user inspection checklist. This was noted by the EPA during the 2019 Audit.
4. According to according to 40 CFR 403.8(f)(2)(v) the City must ensure that all industries are sampled and inspected at least once per year as required by the general pretreatment regulations. If the City is not able to collect a sample, the burden then should fall to the IU to conduct the analysis. This was noted by the EPA during the 2019 Audit.
5. The City should impose a control mechanism on Sapp Bros. and Speedco facility, to prevent interference of the POTW.

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Nicole Moran  
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### **ATTACHMENTS**

1. PCI Checklist
2. NPDES
3. Permitted SIUs
4. Local Limits
5. Hauled waste records
6. Omaha Standard TOMP
7. ERP

8. Annual reports
9. Sludge data