

IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE CONSENT ORDER

IN THE MATTER OF:

CITY OF SAC CITY
Wastewater Facility No. 6-81-50-0-01

**ADMINISTRATIVE
CONSENT ORDER
NO. 2009-WW-25**

TO: City of Sac City
c/o Honorable Mayor and Council
302 East Main Street, P.O. Box 37
Sac City, IA 50583

I. SUMMARY

This administrative consent order (hereinafter referred to as the order) is entered into between the City of Sac City (City) and the Iowa Department of Natural Resources (Department). The parties hereby agree to the issuance of this order for the purpose of resolving effluent limit violations and operation and maintenance violations at the City's wastewater treatment facility (WWTF). The City hereby agrees to comply with the schedule contained in this order for WWTF improvements, to properly operate and maintain the existing wastewater collection and treatment facilities, and to pay penalties as set forth in this order. In the interest of avoiding litigation, the parties have agreed to the following provisions.

Any questions regarding this order should be directed to:

Relating to technical requirements:

Neil Cook
Environmental Specialist Senior
IDNR Field Office No. 3
1900 North Grand, Gateway North Mall
Spencer, IA 51301
Ph: 712/262-4177

Relating to legal requirements:

Diana Hansen
Attorney at Law
Iowa Department of Natural Resources
502 East 9th St.
Des Moines, Iowa 50319-0034
Ph: 515/281-6267

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II. JURISDICTION

The parties hereby agree that this order is issued pursuant to Iowa Code section 455B.175(1), which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division III, Part I, and the rules promulgated or permits issued pursuant thereto, and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties.

III. STATEMENT OF FACTS

The parties agree to the following statement of facts.

1. The City owns and operates a WWTF located in Section 25, Township 88N, Range 36W, Sac County, Iowa. The City's municipal wastewater treatment facility consists of a collection system with lift stations and a treatment plant comprised of two rotary screens, six rotating biological contactors (RBC's) arranged in two trains of three units each, two final clarifiers, and a chlorine contact and dechlorination chamber. Primary and secondary sludges are stabilized by aerobic digestion and disposed of by land application.

The WWTF discharges treated wastewater to the North Racoon River, pursuant to Iowa NPDES Permit No. 6-81-50-0-01. The NPDES permit contains monitoring and limitations for the discharge of pollutants, including CBOD5, TSS, ammonia nitrogen (N), pH, copper and lead. The permit also contains monitoring and limitations for the disposal of leachate from a sanitary landfill at the City's WWTF. The leachate is required to be sampled for BOD5, TSS, ammonia nitrogen (N), and pH.

2. The City was issued Administrative Order No. 97-WW-58 concerning wastewater treatment violations. The violations included effluent limit violations due to the City's failure to adequately repair and maintain the City's WWTF. There was additionally a bypass from the primary lift station at the City's WWTF of approximately 5 million gallons of raw sewage. The bypass was due to leaking pump seals and a malfunction of the dry well sump pump which caused flooding of the lift station dry well. The penalty portion of the order was settled through a Supplemental Environmental Project.

3. On January 11, 2006 a Notice of Violation letter and an inspection report for a December 8, 2005 inspection were issued by the Department's Field Office No. 3 (FO 3). The report noted frequent violations of effluent limits for TSS and ammonia nitrogen between October 2002 and September 2005. The report found deficiencies at the WWTF that included poor physical condition of the influent splitter box and insufficient sludge disposal. The report also commented that there was inadequate staffing for the WWTF.

4. FO 3 issued a Notice of Violation letter on February 8, 2006 for effluent violations that occurred during December 2005. On February 17, 2006 the City Administrator

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responded by letter to the Notice of Violation. The City's response indicated that a RBC bearing failure was the cause of the effluent limit violations in December 2005.

5. On November 14, 2006 FO 3 issued a Notice of Violation letter citing the City for effluent limit violations during August 2006. On November 20, 2006 the City Administrator responded by letter to the Notice of Violation. A RBC bearing failure was cited as the cause of the effluent limit violations in August 2006.

6. On January 29, 2007 FO 3 issued a Notice of Violation letter for effluent limit violations that occurred during October and November 2006. There was a daily maximum violation for ammonia nitrogen in October 2006. In November 2006 there was a 30 day average copper violation, a 30 day average lead violation, and a daily maximum lead violation. On February 1, 2007 the City Administrator responded to the Notice of Violation by a letter. The City's letter stated that mechanical failure of RBC units was the cause of the effluent limit violations in October and November 2006.

7. On February 7, 2007 FO 3 issued a Notice of Violation letter and a report for an inspection performed on December 5, 2006. The inspection report cited the City for effluent limit violations that occurred during December 2005, April 2006, May 2006, August 2006, October 2006, November 2006, and December 2006. The report noted additional maintenance and repair deficiencies at the WWTF that needed to be remedied as soon as possible. The report required the City to repair the concrete structure of the influent splitter box due to the advanced state of deterioration of the concrete structure. The City was required to repair one RBC unit that was inoperable because of bearing failure and to repair one final clarifier not in use because of a broken skimmer. The report found that there was inadequate sludge disposal caused by insufficient staffing at the WWTF and overall inadequate repair and maintenance at the WWTF. The report required the City to provide additional manpower to facilitate maintenance and sludge disposal.

The inspection report commented further on the overall maintenance and staffing of the WWTF. "The existing treatment facility is 29 years old, having been constructed in 1978. Treatment facilities are typically designed to last 20 to 25 years with adequate maintenance. When the service life of a treatment facility is extended beyond 25 years, maintenance becomes critical and the need [f]or repairs more frequent. The current overall condition of the treatment facility is fair to poor, indicating the need for greater repair and maintenance efforts."

"The current staffing level (a superintendent and an operator/laboratory technician), does not provide sufficient manpower for normal operation and the repair or replacement of broken equipment on a timely basis. The Operation & Maintenance Manual written by the design engineer recommends a staff of four persons."

"Much of the equipment in this facility is no longer in production. In some cases the company that made the equipment no longer exists. As a result the acquisition of parts has become more difficult. Parts are often manufactured only upon demand. Therefore,

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frequently needed parts such as RBC bearings should be kept in stock so that repairs can be completed immediately instead of having to wait for parts to be made and delivered.”

8. On August 6, 2007 FO 3 issued a Notice of Violation letter for a 7 day average TSS mass violation in April 2007, a 30 day average TSS mass violation in May 2007, and a 7 day average mass violation. FO 3 issued a Notice of Violation letter on August 6, 2007 for failure to monitor for pH in May 2007 at the Sac County Landfill. A Notice of Violation letter was issued by FO 3 on November 19, 2007 for a daily maximum NH₃-N violation and a seven day average TSS violation in July 2007.

9. On September 24, 2007 the Department received a Facility Plan dated September 20, 2007 from the City for improvements to its WWTF. The Facility Plan stated that after consideration of various alternatives, including renovation of the existing system, the City elected to construct a new oxidation ditch WWTF to replace its current facility as the most cost effective and best wastewater alternative meeting the City's needs. The Facility Plan was amended by an August 2008 submittal to the Department.

10. By a letter dated October 1, 2008, the City reported that it had taken actions concerning deficiencies at the City's WWTF. The skimmers on the final clarifiers had been repaired. The RBC box was in the process of being installed at the time of the City's letter. The City was progressing toward hiring an additional employee to perform sludge removal duties and regular maintenance and upkeep by mid-October 2008.

11. By a letter dated December 1, 2009, the City's engineering firm reported that it submitted partial plans and specifications to the Department as well as a geotechnical engineering report. By a letter dated April 22, 2009 the City's engineering firm submitted final plans and specifications for review by the Department. It is anticipated that bids on the project will take place by no later than November 19, 2009. From November 19, 2009 through February 15, 2010, the Department's SRF staff and IFA will provide reviews and final approvals, as needed. The City anticipates issuing a notice to proceed by April 1, 2010.

12. The City decided to upgrade its existing WWTF rather than construct a new facility. The construction project includes a five million gallon synthetic lined flow equalization basin which must be constructed prior to proceeding with other work at the wastewater treatment facility in order to control flows through the treatment processes. Construction is expected to require approximately five months of weather conducive to earthwork.

Extensive renovation of the existing treatment process will also be required. Removal and replacement of existing screening and grit removal equipment, replacement of rotating biological contactor units, and replacement of final clarifier equipment will be required. All equipment replacement of this type requires extensive staging and flow limitation to provide treatment through the use of the existing equipment.

Replacement of all Rotating Biological Contactor (RBC) units will be required. As these are primary treatment process units, only one of the six existing units may be taken from service at any given time. Prior to replacement of any RBC unit, all headworks screening

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and grit removal equipment will be replaced in its entirety. New flow control gates will be constructed to control flows into the RBC units. After demolition and replacement of an RBC unit, an estimated 14 days of acclimation will be required to establish a bacteria population on Units 1 through 4. Units 5 and 6 will require 21 days of acclimation. It is estimated that RBC units 1 through 4 will require approximately 30 days each for removal, replacement, and acclimation. RBC units 5 and 6 will require approximately 44 days for removal, replacement, and acclimation. Replacement of the RBC units is estimated to require approximately nine months.

Final clarifier equipment will also be replaced. One of the two final clarifiers must remain in service at all times with flow limited by the flow equalization basin.

Work also includes renovation of an existing buried steel pump station including site work, piping replacement, pump replacement, renovation of an existing masonry building, HVAC improvements, electrical system improvements, standby generator replacement, temporary bypass pumping and required equipment.

Renovation of an existing sludge handling system, including pump replacement, installation of positive displacement blowers, process piping, electrical and mechanical systems renovation and construction of a masonry building will be required. A new standby generator will be installed at the existing WWTP plant site. An alternate bid will be accepted for installation of geodesic aluminum domes on two final clarifiers.

The main WWTP building will require structural improvements, architectural modifications, door replacement, replacement of an existing built-up roofing system with a new PVC membrane roofing system, electrical, and mechanical upgrades. New construction will include construction of additional concrete sludge digestion tanks, required equipment, piping, pumps, and other related items.

It is anticipated that construction work will begin spring 2010 after the notice to proceed is issued. The construction work would be substantially completed by November 16, 2011. The substantial completion date is the date by which construction of the project is sufficiently completed such that the WWTF improvements can be operated to provide dependable wastewater treatment to the City of Sac City. This includes automatic operation of the WWTF and equipment. Optimization and adjustment of the equipment and controls including final operation training will be completed between the time of substantial and final completion. The final completion date for the construction project is May 4, 2012.

13. The City has indicated that it would perform a Supplemental Environmental Project (SEP) in lieu of a portion of the administrative penalty. The City's project involves sewer work that was not part of its WWTF construction project and not required by the Department to date. The proposed project includes rehabilitating an existing 8 inch sanitary sewer by adding a cured-in-place lining with spot repairs and manhole rehabilitation as necessary. The sewer is located just east of the Raccoon River. The proposed project extends northerly from the main pump station through the City Park to near Park Avenue and Mauer Avenue approximately 3,000 feet. The sewer has been

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identified through TV inspection as a significant source of infiltration and inflow. The preliminary construction cost estimate is \$175,000.00. Rehabilitation of this sewer is an addition to the overall wastewater system improvements presently being designed and has not been included in any prior capital improvement program.

14. By signature to this order, the City and Department agree to an implementation schedule for the City to upgrade the City's WWTF. The schedule is set out in Section V of this order.

IV. CONCLUSIONS OF LAW

The parties agree that the following conclusions of law are applicable to this matter.

1. Iowa Code section 455B.186 prohibits the discharge of pollutants into waters of the state, except for adequately treated pollutants discharged pursuant to a permit. Iowa Code section 455B.183 prohibits the operation of a wastewater disposal system without a permit from the Department.

2. Iowa Code section 455B.173 authorizes and requires the Environmental Protection Commission (Commission) to promulgate rules relating to the operation of waste disposal systems, including rules relating to monitoring and reporting requirements. The Commission has done so at 567 IAC chapters 60- 64. Subrule 64.3(1) prohibits the operation of a waste disposal system without or contrary to the terms of a permit. Subrule 64.7 specifies the conditions that are to be included in a permit, including applicable effluent limitations in chapters 61 and 62 of the rules.

3. This facility's NPDES permit requires these facilities to be adequately operated and maintained. Standard Condition 8 of the permit provides that all facilities and control systems shall be operated as efficiently as possible and maintained in good working order. This standard permit condition is based upon subrule 64.7(5)"f". This subrule states "the permittee at all times shall maintain in good working order and operate as efficiently as possible any facilities or systems of control to achieve compliance with the terms and conditions of the permit."

4. The City's failure to meet permitted effluent limits and failure to comply with the proper operation and maintenance provision in its NPDES permit noted above violate these provisions.

V. ORDER

THEREFORE, the Department orders and the City agrees to comply with the following provisions in order to cease, abate, and redress the above-cited violations:

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1. All facilities and control systems shall be operated as efficiently as possible and maintained so as to achieve optimum treatment and effluent quality at all times. The City shall maintain the existing treatment facility in proper operating condition until the necessary improvements are completed and thereafter, maintain the new or improved treatment facility in proper operating condition.

2. The City shall maintain adequate staffing at the WWTF to perform sewage sludge removal or enter into a contract for the semi-annual disposal of sewage sludge.

3. The City is required to take construction bids for the upgrade to its WWTF by November 19, 2009. Bid evaluation and concurrence by Department SRF staff and IFA staff will continue through January 15, 2010. The City is required to issue the notice to proceed for the construction project by April 1, 2010.

4. The WWTF construction project is required to be substantially complete by November 16, 2011, with final completion by May 4, 2012. Substantial completion means that the project is sufficiently completed such that the improvements to the WWTF can be operated to provide dependable wastewater treatment to the City. Final completion of the project includes construction of the facility improvements authorized by the Department's construction permit and compliance with all construction permit and design requirements. By July 1, 2012 the City is required to achieve compliance with final effluent limits.

5. The City is required to pay an administrative penalty of \$10,000.00. This penalty is due to the Department within sixty days of receipt of the order signed by the Director.

In lieu of payment of the full administrative penalty, the City may elect to pay \$2,500.00 to the Department as an administrative penalty. In lieu of payment of the remainder of the monetary penalty, the City may elect to perform as a Supplemental Environmental Project (SEP) the sewer work described in Section III Paragraph 13 of this order.

The City is required to pay the \$2,500.00 penalty to the Department within sixty days after the City's receipt of the order signed by both parties. The City agrees that the sewer work would be completed by August 30, 2010. Documentation of completion of the SEP and the payment of the SEP amount toward the project is required to be furnished to Neil Cook, Iowa Department of Natural Resources, Field Office No. 3, and to Diana Hansen, Iowa Department of Natural Resources, within 30 days of completion of the project. Upon notification of completion of the SEP, Field Office No. 3 will conduct an inspection to confirm completion of the SEP.

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VI. PENALTY

1. Iowa Code section 455B.191 authorizes the assessment of civil penalties of up to \$5,000.00 per day of violation for the violations involved in this matter. More serious criminal sanctions are also available pursuant to that provision.

2. Iowa Code section 455B.109 authorizes the Environmental Protection Commission to establish by rule a schedule of civil penalties up to \$10,000.00 that may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties in Chapter 567 IAC chapter 10. Pursuant to these rules the Department has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an order with an administrative penalty.

a. Economic Benefit. The violations could have been avoided by additional expenditures for facility maintenance, additional operational measures, and personnel. The cost savings to the facility in not complying is not certain, but is estimated to be at least \$2,000. That amount is assessed for this factor.

b. Gravity of the Violation. One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for the type of violation. As indicated above, substantial civil and criminal sanctions are authorized by statute. Despite the high penalties authorized, the Department has decided to handle the violations administratively at this time, as the most equitable and efficient means of resolving the matter. Maintaining compliance with water pollution control laws is a major program priority of the federal and state pollution control agencies. Based on these considerations, \$4,000.00 is assessed for this factor due to multiple violations.

c. Culpability. The facility has been cited previously for repair and maintenance violations through notices of violation. The City has been issued notices of violation but continued to have maintenance and repair deficiencies. Despite the notices of violation the City has continued to allow its facility to be in a state of disrepair. Additionally, the Department issued Administrative Order No. 97-WW-58 to this facility for failure to properly repair and maintain the facility. Therefore, \$4,000.00 is assessed for this factor due to multiple violations.

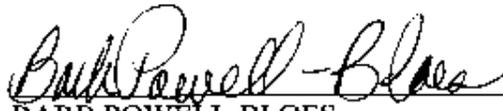
VII. WAIVER OF APPEAL RIGHTS

Iowa Code section 455B.175, and 561 IAC 7.5(1), as adopted by reference by 567 IAC chapter 7, authorize a written notice of appeal to the Commission. This order is entered into knowingly by and with the consent of the City. By signature to this order, all rights to appeal this order are waived.

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VIII. NONCOMPLIANCE

Compliance with Section V. of this order constitutes full satisfaction of all requirements pertaining to the violations described in this order. Failure to comply with this order may result in the imposition of administrative penalties pursuant to an administrative order or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.191.



BARB POWELL-BLOES
MAYOR OF SAC CITY

Dated this 26th day of
August, 2009.



RICHARD A. LEOPOLD, DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 8 day of
Sept., 2009.

City of Sac City- Wastewater Facility No. 6-81-50-0-01 (Copy to Central Office Wastewater Records File); Neil Cook- Field Office 3; Butch Doorenbos- Department Project Manager, Diana Hansen- Legal Services; U.S. E.P.A. Region VII, I.B.2.b., I.B.2.c and I.B.2.d.

Copy to: Darin Jacobs, P.E., Snyder & Associates, Inc., 2727 S.W. Snyder Boulevard, Ankeny, Iowa 50023