



# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

June 14, 2010

City of Davenport  
226<sup>th</sup> West 4th Street  
Davenport, IA 52801

ATTENTION: Honorable Mayor and Council

NOTICE OF VIOLATION: Unpermitted Wastewater Bypasses, Rule 567-IAC 63.6(455B)

SUBJECT: Wastewater Collection System Inspection Report

City Officials:

Please find enclosed one copy of the inspection report prepared by Jim Sievers of this office. The inspection report should be self-explanatory.


The inspection report notes the occurrence of frequent, unpermitted, wastewater bypasses from several locations in Davenport. Wastewater bypasses are prohibited by Rule 567-IAC 63.6(455B). A copy of the rule is enclosed with this report. The city must continue to identify and eliminate significant sources of inflow and infiltration in the collection system.

This matter is being referred to the DNR Legal Services Section in Des Moines for review and additional compliance action.

If you have questions about the report or this letter, please contact me or Jim Sievers at 319/653-2135.

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU

  
Dennis Ostwinkle  
Field Office Supervisor

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Encl. Inspection Report  
Copy of Bypass Rule

xc: DNR Records Section, DNR, Des Moines  
File - Municipal File



IOWA DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL SERVICES DIVISION

Field Office 6,  
1023 West Madison, Washington, IA 52353-1623  
Tel: (319) 653-2135 Fax: 2856

REPORT OF INVESTIGATION

INSPECTION DATE: 5/25/10 @ 1:00 p.m.

TO:

City of Davenport  
226 West 4<sup>th</sup> Street  
Davenport, IA 52801

PERSONS CONTACTED:

Mike Clark, Public Works Director  
Dennis Ryan, Treatment Plant Manager  
Lavern Cole, Streets & Sewers Supt.  
Gene Hellige, City Engineer

RE: Wastewater Bypass Inspection  
Facility No. 6-8222003

INSPECTOR: Jim Sievers

*James T. Sievers*

DATE: 6/10/10

REVIEWER: Dennis Ostwinkle

*Dennis Ostwinkle*

DATE: 6/14/10

DISTRIBUTION: FIELD OFFICE: CENTRAL OFFICE: INSPECTED FACILITY

**General Information:**

I met with the four public works officials listed above and talked with them about the Davenport wastewater collection system. The current population of Davenport is approximately 100,000. The city has 29,590 residential connections, 7,032 commercial connections and 20 industrial. The service area is approximately 66 square miles. There are approximately 483 miles of gravity sewer, 6500 manholes, four pumps stations and one siphon.

**Collection System Maintenance Program:**

The city has a crew of 22 collection system employees. These employees are certified in collection system operation and maintenance. The city also has a completed Capacity assurance, Management, Operation, Maintenance (CMOM) program. The city owns two hydraulic jet machines, two rodding machines, one combination machine, a sewer camera and vacuum trucks.

**Lift Stations:**

The lift stations were not inspected during this inspection. There are four sanitary sewer lift stations located in the collection system and each station is equipped with two pumps. The lift stations have automatic alarm systems that alert city personnel to problems. None of the lift stations are equipped with generators. However, the city does have portable pumps that can be used to pump wastewater out of the lift stations and back in to the collection system in the event of pump failure.

**Inflow/Infiltration (I/I) Investigations and Construction Projects:**

The city has a five year Capital Improvement Program (CIP) that contains over 20 sanitary sewer projects. The total estimated five year cost for these projects is over \$100,000,000. Some of the projects are investigative studies to identify problem areas in the collection system. Other projects include repairs to the collection system by lining sewers, replacing/repairing system components, etc... The largest current project in terms of cost and construction is known as the Westside Diversion Tunnel project. According to the CIP, the project will solve existing problems and will provide for future growth. It will consist of approximately 1.5 miles of tunnel and 1.7 miles of open cut construction. Pipe size will range from 60 to 72 inches in diameter. The estimated cost of this project is \$50,835,000. Construction has begun on this project and is expected to last for several years. The CIP also lists a project to construct an equalization basin near the wastewater treatment plant. The basin will eliminate or greatly reduce surcharges in the River Front Interceptor Sewer. This will mitigate sewer backups and overflows along the river front.

**Wet Weather Bypassing:**

There are eight bypass points listed in the discharge permit. The locations are as follows:

East 18<sup>th</sup> and Marlo  
East Floral Lane at Orchard  
40<sup>th</sup> Street and Linwood  
West Lombard and Clark  
2400 block of Madison  
River Drive west of Government Bridge  
Southeast corner of River Drive and Mound Street  
Levee at Floral Lane

In addition, there have been wet weather overflows at Garfield and Western, South Concord, Spauling and Lombard, River Drive and Federal, and Biederbeck between Main & Harrison.

The treatment plant has to restrict influent flow when wet weather flows approach 45 million gallons per day because flows that exceed that amount can damage equipment at the plant. When flows are restricted sewage backs up into the collection system and can cause basement backups and manhole overflows (bypasses). A review of the bypass reports submitted by the city revealed there were 33 separate manhole overflows caused by rain during 2009. The volume of wastewater discharged during these overflows can not be measured; however, some of the manholes overflow for several hours each event. Mr. Cole and I drove to some of the locations where the overflows have occurred. Many of the manhole covers have been bolted down to prevent future overflows. I saw no overflows during this inspection.

**SUMMARY**

The city has increased spending on sanitary sewer improvements over the past few years and large capital improvement projects are in the construction phase or proposed. In addition, the city has recently increased sewer rates. However, the excess inflow and infiltration in the collection system continues to cause frequent wastewater bypasses and wastewater bypasses are prohibited by Rule 567-63.6(455B). The city will need to continue to identify and eliminate inflow and infiltration in order to eliminate these wastewater bypasses.