

Sanitary Sewer Overflow (SSO) Procedure

Purpose

The purpose of this procedure is to establish the general requirements for the process of controlling, containing, notifying appropriate agencies, determining the cause, making recommendations for correction and improvement, cleaning up and sampling waterways (if required) for sanitary sewer overflows (SSOs).

Scope

- a. Control, stop and contain SSOs
 - b. Proper notification of supervision and DNREC
 - c. Paperwork documents (incident report and five day letter)
 - d. Cleanup of are using lime, rake up larger debris from SSO
 - e. Sample testing of the stream/river by Lab personnel to determine any environmental impact
1. *Containment of SSO*
 - a. On-call personnel are dispatched by supervisor when call is received from operations or upon chatterbox or SCADA alarm
 - b. Personnel arrive at the problem site to try to stop the SSO and troubleshoot the problem, and call supervisor to request additional help if needed
 2. *Notification*
 - a. Contact operations and notify supervisor
 - b. Supervisor estimates the amount of wastewater spill
 - c. Supervisor will notify DNREC and give location, cause of problem, if its contained or continuing, and the approximate amount released
 - d. Mechanics responding to SSO completes incident report
 - e. Supervisor submits incident report to assist with the completion of the five day letter
 - f. Assistant Public Works Director prepares and submits five day letter
 - g. For SSOs in excess of 10,000 gallons, must include a DNREC public notification fee
 3. *Cleanup*
 - a. Ensure area contaminated with wastewater released is cleaned up
 - b. Recover as much wastewater as possible using the vacuum truck or the septage truck
 - c. Rake and brush the grassed areas and wash down black top areas
 - d. Spread lime over the area

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4. *Sample testing*
 - a. Notify Lab and/or Pretreatment if sample testing is required
 - b. Follow Lab sampling protocols
 - c. If any waterways were contaminated, submit results to DNREC

 5. *Causes of SSOs*
 - a. Determine the root cause
 - i. Failed release valves
 - ii. Force main break
 - iii. Failure of pump or controls at pump stations
 - iv. Too much infiltration/inflow
 - v. Electric outage or generator failure
 - vi. Human error
 - vii. Inadequate engineering
 - viii. Lack of training

 6. *Corrective actions*
 - a. Follow up to ensure that the recommended corrective actions have been completed
 - b. Check to ensure the problem does not re-occur
 - c. Determine if a permanent solution has been implemented or if solution is only temporary

 7. *SSO volume*
 - a. Determine SSO duration and volume
 - b. Indicate how much of the release was recovered
 - c. Subtract amount recovered from the amount released and report this to DNREC in five day letter
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Kent County Public Works Wastewater Division, Milford, Delaware

INCIDENT REPORT

INCIDENT NOTIFICATION RECEIVED: DAY _____ DATE ____ / ____ / ____ TIME _____ BY _____

INCIDENT _____

LOCATION _____

MECHANICS SENT _____ / _____ DISPATCHER _____ SUPERVISOR RESPONDING _____

DATE ____ / ____ / ____ TIME: CALLED _____ ENTERED PS _____ BACK ONLINE _____

PS DOWN TIME _____ HOURS _____ MINUTES ____ ESTIMATED WASTEWATER SPILL _____ GALLONS

SITE CONDITION

INCIDENT CAUSE

PREVENTIVE MEASURES

DNREC NOTIFIED 739-5072, 739-4580 YES _____ NO _____ DATE ____ / ____ / ____ TIME _____ BY _____

STREAM TESTED YES _____ NO _____ DATE ____ / ____ / ____ TIME _____ BY _____

OVERFLOW AREA CLEANED&LIMED YES _____ NO _____ DATE ____ / ____ / ____ TIME _____ BY _____

KCWTF MAINTENANCE SUPERVISOR DATE KCWTF SUPERINTENDENT/MGR DATE

EXAMPLE 5 DAY LETTER

January 14, 2010

Water Pollution Control Branch
DNREC - State of Delaware
89 Kings Hwy
Dover, DE 19901

Attention: Allen V. McCloskey, Sr., Senior Environmental Compliance Supervisor

**RE: Sanitary Sewer Overflow (SSO) at Pump Station (PS) No. 1
205 Mill Street, Smyrna, Delaware
On Wednesday, January 13, 2010 at 1130**

Dear Mr. McCloskey:

Description	- A manhole close to PS-1 at 205 Mill Street, Smyrna, DE spilled approximately 1,000 gallons of wastewater on Wednesday, January 13, 2010 at 1130, due to a failed air pressure relief valve (PRV) in the 16-inch transmission line.
Investigation	<p>- On January 13, 2010, crews were in the process of transferring wastewater from the 24-inch forcemain to the 16-inch forcemain so work could be performed at PS-2 on Denny's Rd. During the process one of the 16-inch air relief valve malfunctioned and wastewater was spilling from the manhole into the median of S Dupont Blvd in the area of address 1204.</p> <p>- After the transfer was completed the pipe line was investigated for leaks and that is when the spill was noticed.</p> <p>- Once the spill was noticed the lines were transferred back and the spilling stopped.</p>

Investigation
Continued

- DNREC was notified of spill on Wednesday, January 13, 2010 at 1145.

- The area was cleaned and limed.

Conclusion

- The SSO was caused by a failed air PRV.

Spill Volume

- The estimated spill volume was approximately 1,000 gallons.

Corrective Action

- The air relief was replaced with a new one once the spill was controlled.

If you have any questions, please feel free to contact me at (302) 335-6000.

Sincerely,

Keith Powell
Assistant Public Works Director

cc: Hans Medlarz, P.E., Public Works Director
Keith Powell, Acting Asst Public Works Director

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