Sanitary Sewer Order Enforcement

Orders 2006-0003-DWQ and 2008-0002-EXEC

Jim Fischer, P.E.
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State Water Board, Office of Enforcement
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1. Who is inspecting?

2. Why are we inspecting?

3. Inspections conducted to date

4. Systems most likely to be inspected
5. Areas likely to be checked
6. TOP ISSUES IDENTIFIED
7. Tips on Being Prepared
8. Sewer System Management Plan (SSMP) Self Audit Requirements
1. Who is inspecting?

- Regional Water Boards
- State Water Board, Office of Enforcement
  - 5 Investigators
- US EPA, Region IX, Clean Water Act Compliance
  - Partnering with State/Regional Water Boards
- US EPA IX Contractors: ~20 inspections (CY2012)
2. Why are we inspecting?

- Reduce sanitary sewer overflows (SSOs) and their impacts on public health and the environment
- Inspect sites to evaluate compliance with Order – How prepared are you?
- Identify violations and/or areas of concern
- Deliver fast, firm, fair enforcement where needed
- Establish “compliance baseline” since most systems have never been inspected
2. Why are we inspecting? (cont’d)

- Promote program compliance and conformity

- Check accuracy of SSO reporting including interviews with collections staff to assess discharger’s reported data and assess SSMP implementation

- Evaluate inspection and maintenance procedures, including record keeping practices, methodologies, and calculations for estimating SSO volume discharged
2. Why are we inspecting? (cont’d)

- Identify and document positive SSO response, mitigation, and prevention strategies
- Evaluate program and identify potential improvements
- Increase regulatory staff knowledge about Best Management Practices (BMPs) to document, reduce and/or eliminate SSOs
3. Inspections Conducted to Date

- ~ 50 sites (audits, routine compliance and investigations)

- Most unannounced to allow inspection as close to normal operations as possible

- Statewide coverage; small (8 miles) medium (100+ miles) and large systems (>3,000 miles)

- Some enforcement actions pending (informal actions: information requests; formal actions: fines)
4. Systems Most Likely to be Inspected

- Inspections conducted **not** random
- Systems failing to: enroll, comply with reporting requirements, and certify/implement an adequate SSMP
- Target systems with **suspect reporting**, including those reporting few spills or none
- Inspect based on follow-up review of “Pre-Inspection Questionnaire” or other data submitted to Water Boards
4. Systems Most Likely to be Inspected

- Systems reporting high volume and/or chronic SSOs
- Referrals by Regional Boards
- Inspect in response to complaint received
EXAMPLE –
“Pre-Inspection Questionnaire” Results
PART 3 — REQUIRED INFORMATION

1 DOCUMENTATION

Please mail an electronic copy (e.g., CD) of the following documents to:

State Water Resources Control Board
Office of Enforcement, Special Investigations Unit
1001 I Street, 16th Floor, Sacramento, CA 95814

1.1 Sewer System Management Plan [(SSMP) [Sanitary Sewer System General Waste Discharge Requirements (SSSWDR), Sect. D.13] and any documents referenced within the SSMP. Also include documentation showing approval of the SSMP by your agency’s local governing board (e.g., Board Resolution or other documentation). We are in the process of securing a firm to do a gap analysis and taking the completed SSMP to council for adoption.

1.2 SSMP Program Audit[1] [SSSWDR, Sect. D.13(x)], if not contained within your agency’s SSMP. Draft audit available in hardcopy.

1.3 Sewer System Area Map [SSSWDR, Sect. D.13(iv)], if not contained within your agency’s SSMP

1.4 Local Sewer Use Ordinance [SSSWDR, Sects. D.13(iii) and D.13(vi)], if not contained within your agency’s SSMP

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[1] To satisfy SSSWD, Sect. D.13(x), the SSMP Audit must occur at least every two years following the original approval date of the agency’s SSMP by the local governing board. The SSMP Audit must measure the effectiveness and compliance of an Enrollee’s SSMP.
14 NOTIFICATION, REPORTING AND RECORD KEEPING

14.1 [SSSWDR, Amended MRP B(5)]: Are all the records required in the Amended MRP, B(5) (“Record Keeping”) readily available for review by the Water Boards? [Y/N] Y

14.2 [SSSWDR, Amended MRP, B(5)]: Does your agency maintain a list and description of all sewer-related complaints from customers for the past 4 years, including calls received after normal working hours? [Y/N] N

14.3 [SSSWDR, Amended MRP, B(5)]: If yes to question 14.2, does this include information regarding privately owned sewer laterals? [Y/N] N

14.4 [SSSWDR, G, and Amended MRP]: Does your agency have a quality assurance/quality control (QA/QC) procedure in place for review of technical information collected by field staff prior to certification of the SSO report(s) in the Water Board’s online reporting system (CIWQS) by the Legally Responsible Official(s)? [Y/N] N

14.5 [SSSWDR, G and Amended MRP]: Does your agency require crews to take photos of all SSOs? [Y/N] N

14.6 [SSSWDR, G and Amended MRP]: If no to question 14.5, does your agency at least require crews to take photos of SSOs that result in backups into structures? [Y/N] Y

14.7 [SSSWDR, G and Amended MRP]: Does your agency have a procedure(s) in place for collecting field information to assist in determining the actual SSO start time? [Y/N] N

14.8 [SSSWDR, G and Amended MRP]: Does your agency use SOPs to estimate SSO volume spilled, recovered and not recovered, including estimation of cleanup water used? [Y/N] Y

14.9 [SSSWDR, G and Amended MRP]: Does your agency regularly update initial reports given to the California Emergency Management Agency, local health department, and Regional Board as information develops regarding SSOs requiring notification? [Y/N] N

14.10 [Amended MRP, B.6]: Does your agency maintain water quality monitoring records as required by the Amended MRP, section B(6)? N
15 SSO PREVENTION AND MITIGATION

15.1 [SSSWDR, D.13(ix)]: Does your agency generate SSO reduction performance metric(s) for its collection system for use in future planning? [Y/N] N

15.2 [SSSWDR, D.13(ix)]: Does your agency have a program in place to conduct periodic video (CCTV) inspections of areas throughout the collection system that have never been evaluated by video (CCTV) to date? [Y/N or N/A] Y

15.3 [SSSWDR, D.13(ix)]: Does your agency document meetings between O&M and source control staff, if applicable? [Y/N or N/A] N

15.4 [SSSWDR, 8 and D.6]: Does your agency document meetings between O&M and engineering staff to discuss system problem areas and projects, if applicable? [Y/N or N/A] N

15.5 [SSSWDR, 8 and D.6]: Does your agency hold post-SSO briefings with collections staff, management and others involved, to evaluate root cause of SSOs and document service changes necessary to be prepared in responding to SSOs in the future? [Y/N] N

15.6 [SSSWDR, 8 and D.6]: Does your agency pursue investigation of upstream satellite(s) or potential illicit dischargers as part of the SSO cause determination process? [Y/N] N

15.7 [SSSWDR, 8 and D.6]: Does your agency adjust sewer collection system cleaning interval(s) for problem areas based on review and analysis of each past SSO? [Y/N] Y

15.8 [SSSWDR, 8 and D.6]: How many of the SSOs over the past 12 months were preventable through more proactive maintenance? [# OR Unknown] Unknown

15.9 [SSSWDR, 8 and D.6]: How many of the SSOs over the past 4 years occurred at repeat locations? [# OR Unknown] Unknown
5. Areas Likely to be Checked

- **Records** to verify accuracy of data certified by Legally Responsible Official(s)
  - Hard copies, electronic records (including CMMS data if used)
  - Historic customer call-ins and call-outs
  - Crew logs and field documentation
5. Areas Likely to be Checked

- Sewer System Management Plan (SSMP) implementation

- Specific examples:
  
  ✓ Procedures used to ensure staff/contractors follow Overflow Emergency Response Plan (OERP): D.13(vi)(d)
  
  ✓ Process used to maintain up-to-date map of the sewer system: D.13(iv)(a)
  
  ✓ Process used to evaluate service area for Fats, Oils, and Grease (FOG) control program: D.13(vii)
  
  ✓ Section of sewers causing SSOs due to insufficient capacity: D.13(viii)
5. Areas Likely to be Checked

- Work Service Orders, maintenance and related records

- All Available records to justify SSO volumetric estimates certified by Enrollee in SSO Online Database (California Integrated Water Quality System, CIWQS) - e.g., flow data, SCADA records, pump data, etc

- Staff training records

- Agency financial information

- Logbooks (incoming complaints, maintenance activities, etc.)
5. Areas Likely to be Checked

- **Standard Operating Procedures (SOPs)** for asset inspections and maintenance activities (pump station checks, force main air valve inspections/O&M, backup generator exercising, pump station high level alarm testing, etc.)

- Agency **SSO Emergency Operating Procedures (EOPs)** and Overflow Emergency Response Plan and usage during SSOs

- Other procedures to eliminate/reduce SSOs and their impacts

- Procedures to ensure only authorized representatives certify data in CIWQS
5. **Areas Likely to be Checked (Assets)**

- Assets posing highest risks/threats for SSOs
  - Lift/pumping facilities
  - Force main systems
  - Other assets
- Assets located at problem sites and/or former SSO locations (pump stations, mainlines, manholes, laterals, etc.)
5. Pump Station Close to Major Waterway

Example: located adjacent to storm drain inlet and a major waterway (State Water Project Canal)
5. **Pump Station Close to Major Waterway**

Assessment: wet well had evidence of substantial corrosion and accumulation of solids.
5. Residential Lift Station
5. Pump Station on Major Waterway
5. Wet Well Inspections

Assessment: wet well inspection revealed evidence of substantial accumulation of grease and solids.
5. Pump Station Upstream Manhole

Comment: asset located in a large public park next to Sacramento River.
5. Large Pump Station

Assessment: SOPs and EOPs in place to ensure proper maintenance and adequately prepared to adequately handle SSO emergency response
5. Sewer Force Main

Assessment: sewer force main previously failed and caused a significant SSO; several air relief valves mounted on this crossing still not being routinely inspected/cleaned
5. Above Ground Gravity Creek Crossing

Assessment: major upgrades were performed to prevent likelihood of another SSO near this location
5. Other Sample Areas Likely to be Checked

- Sewer equipment, vehicles, SOPs
- SSO emergency/backup equipment and crew knowledge and experience with using the equipment
- Equipment repair manifests/logs
- Spare parts inventories
- Basic questions about routine maintenance and SOPs
- “What if” questions regarding SSO response
5. Other Sample Areas Likely to be Checked

- Familiarity with permit conditions and implementation
- Adequacy of field records and data collection activities to ensure compliance with Amended MRP
- Competency with agency O&M and emergency response activities [see Order sections D.13(iv)(d) and D.13(vi)(d)]
- Interviews with field staff to cross check information obtained from sewer system managers
6. TOP ISSUES IDENTIFIED

1. Failure to implement feasible alternatives and actions necessary to identify, correct problems, and prevent SSOs and impacts (i.e., SSSWDRs, Provisions D.3, D.4, D.6 factors, etc)

2. Failure to comply with SSSWDRs and Amended MRP requirements, including notification and reporting all SSOs as defined in Subsection A of SSSWDRs

3. Failure to maintain adequate records to demonstrate compliance with all SSSWDR and Amended MRP requirements.

4. Failure to develop and/or implement an approved SSMP that will address/reduce preventable SSOs
7. **Tips on Being Prepared**

1. Quarterly review (at minimum) of SSSWDRs, Amended MRP, and agency’s SSMP

2. Quarterly review (at minimum) to check *accuracy* of all data certified by your LRO in CIWQS

3. Quarterly review (at minimum) of required records to be maintained by agency (see Amended MRP, section B on page 5)
7. Tips on Being Prepared

4. Maintain all related files and information to demonstrate **HOW** agency is implementing its approved SSMP

5. Complete “Pre-Inspection Questionnaire” developed by State Water Board, Office of Enforcement

6. Call SSO Program Managers or the Office of Enforcement if you have questions!
7. Tips on Being Prepared

PART 1 — DESCRIPTION

PART 2 — INSTRUCTIONS

PART 3 — REQUIRED INFORMATION

1. DOCUMENTATION

2. Basic Information

3. ORGANIZATION

4. SEWER SYSTEM ASSETS

5. FINANCIAL INFORMATION

6. LOCAL SEWER USE ORDINANCE

7. CAPITAL IMPROVEMENT PLAN

8. OPERATIONS AND MAINTENANCE PROGRAM

9. SEO EMERGENCY RESPONSE PROGRAM

10. SEO REDUCTION PERFORMANCE AND MONITORING PROGRAM

11. COLLECTIONS STAFFING AND TRAINING

12. MAJOR EQUIPMENT INVENTORY

13. EXTERNAL COMMUNICATIONS PROGRAM
8. SSMP Self Audit Requirement (see Section D.13(x) of SSSWDRs)

✓ Self Audits required **every 2 years**
✓ Must measure effectiveness of SSMP
✓ Must verify compliance with SSMP elements

Available for download at: http://bacwa.org/Portals/0/BACWA_SSMP%20Audits_OE_ppt-12-08-11.pdf
Program Contacts & Info

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SSO Main Website:

http://www.waterboards.ca.gov/water_issues/programs/sso/index.shtml

List Serve Sign-Up:

http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml
EXAMPLE RECENT NOV/13267 ORDER
Alleged Violations

From June 11, 2011, to June 11, 2012, the City reported a total of 123 SSOs from the City’s collection system to CIWQS in violation of Prohibition C.2 of the Sanitary Sewer Order. All of the SSOs reported in CIWQS during this period were designated as Category 2.\(^4\)

Furthermore, the City failed to comply with various requirements of SSMP provisions of the Sanitary Sewer Order, and the Amended MRP, including but not limited to the following:

- Failure to retain adequate records to document SSO volume.
- Failure to consistently use SSO event field forms consistent with the City’s Overflow Emergency Response Plan (OERP).
- Failure to establish adequate internal communication procedures that ensures timely response to an SSO complaint.
- Failure to implement a required operations and maintenance program element by failing to follow-through on accelerate cleaning of known problem areas.
- Failure to provide adequate training to collection system staff and contractors on sanitary sewer system operations and maintenance, including the SSMP, and on the City’s OERP.
- Failure to contact the California Department of Fish and Game for an SSO that reached a water body that contained fish or aquatic life.
Therefore, pursuant to Water Code section 13267, this letter requires that by December 17, 2012, the City prepare and submit a technical report responding to each of the findings of the attached inspection report, and propose a schedule for completion of necessary corrective actions. Additionally, the City shall provide status reports, due on the first business day of each calendar quarter, documenting its progress in completing corrective actions until it has adequately revised its SSMP and the identified deficiencies are corrected. The first quarterly status report is due on
Central Coast Water Board Fines South San Luis Obispo County Sanitation District for Waste Water Spill

For Immediate Release: October 4, 2012

Contact: Tim Moran (916) 327-8239

The Central Coast Regional Water Quality Control Board (Regional Water Board) voted Wednesday (Oct. 3) to levy a $1,109,812.80 fine against the South San Luis Obispo County Sanitation District.

The fine stems from a sewer system spill during a storm on Dec. 19 and 20, 2010 at the district’s Oceano Waste Water Treatment Plant. Floodwaters flowed into the plant’s headworks causing an electrical failure that shut down all four of the plant’s influent wastewater pumps. Additional malfunctions caused wastewater to back up into the collection system and spill from manholes, back up into homes in Oceano, and to spill into the Oceano Lagoon, Meadow Creek, Arroyo Grande Creek Estuary, and the Pacific Ocean.

The State Water Resources Control Board (State Water Board) Office of Enforcement filed an Administrative Civil Liability Complaint against the sanitation district, alleging that the spill was caused by inadequate preparation and response by the district.

EXAMPLE WATER QUALITY VIOLATIONS DISCOVERED (UNANNOUNCED INSPECTION)