

Notification Requirements for CMSA Permit Exceedances and JPA Member Sanitary Sewer Overflows

Date: June 5, 2008

I. Purpose:

To outline the Agency's notification and reporting requirements and procedures for NPDES permit exceedances and Sanitary Sewer Overflows (SSOs).

II. Staff Notification:

The following CMSA staff, in order of preference, shall be notified when a potential or actual NPDES permit exceedance occurs or when an SSO from a JPA member agency's collection system is observed:

- 1) Environmental Services Manager, Robert Cole
- 2) General Manager, Jason Dow
- 3) Treatment Plant Manager, Nathan Brennan
- 4) CMSA Operator in Charge
415-459-1455, extension 2

The first CMSA staff member notified will follow the notification and reporting procedures set forth below .

III. Regulatory Notification:

The following is a list of regulatory agencies that may need to be contacted depending on the type of exceedance:

- 1) San Francisco Bay Regional Water Quality Control Board (RWB)
<http://www.wbers.net/>
Spill Hotline: 510-622-2369
Vince Christian, Regional Engineer: 510-622-2336
Bill Johnson, Section Leader: 510-622-2354
- 2) County of Marin Environmental Health Services (EHS)
Main Office: 415-499-6907
Communications Center: 415-499-7237
- 3) State Office of Emergency Services
Main Office: 800-852-7550
- 4) Coast Guard
Main Office: 415-437-3091

IV Procedure:

A. Overflows from the Treatment Facilities

Description:

Any overflow from a treatment process, hauled waste discharger, or effluent storage pond that reaches the storm drain system or drainage canal, and cannot be contained and pumped back to the treatment plant. All notification must take place within **2 hours** of discovery of the spill.

Notification to OES, EHS, and Coast Guard:

- 1) Notify the Office of Emergency Services (OES) as soon as possible after discovery of the spill. Make sure the report/case number is given and document it.
- 2) Notify the County of Marin Environmental Health Services (EHS) immediately after calling the OES. Document the date and time of the call, and the individual contacted.
- 3) The Coast Guard must be notified if the spill potentially reached SF Bay. Document the date and time of the call, and the individual contacted.
- 4) When contacting OES or Marin County EHS, provide the following message:

“This is (*employee name*) from the Central Marin Sanitation Agency. I am calling to report that an overflow from the (*location or treatment process*) has occurred and was discovered at (*time*). It has resulted in a discharge to the storm drain system. We are notifying OES, Marin County EHS, RWB, and the Coast Guard. We are performing an investigation of the incident. If you have any questions please contact Environmental Services Manager, Robert Cole at 415-459-1455, extension 142.”

Notification to RWB:

- 1) The Regional Water Board (RWB) must then be notified electronically on their website within **2 hours**. If access to a computer is not possible perform the verbal reporting described below and an electronic report is required within 3 business days. See the reporting procedure listed below. Provide the report/case number given by OES and confirm that Marin County EHS has been contacted with the date/time and any contact information that was provided. If notification was by telephone, document the date and time of the call to the RWB, the individual contacted, or whether a message was left on an answering machine.

Electronic Reporting to RWB:

Electronic reporting is required within 2 hours of the discovery of the overflow and then 24 hours certification (waived if the OES Case number is provided) and a follow-up report after 5 business days. If access to a computer is not possible within two hours of discovery of the spill a verbal report must be performed with a follow-up electronic report within 3 business days.

- 1) 2 Hour Electronic Reporting: Log onto the Regional Water Board online spill notification website at: <http://www.wbers.net/>
 - a. Log in under the "MWTP - Login Section"
 - b. User Name:
 - c. Password:
 - d. Provide answers to the following 7 questions that will be asked on the electronic reporting website
 1. A description of what happened (i.e., the cause),
 2. The location of threatened or involved waterways(s) or storm drains.
 3. The date and time the unauthorized discharge is known to have started,
 4. The estimated quantity and duration of the unauthorized discharge so far, and the estimated amount recovered,
 5. The level of treatment (e.g., raw wastewater, primary treated, undisinfected secondary treated, and so on), and
 6. The identity of the person reporting the unauthorized discharge, and
 7. A certification that OES and Marin County EHS have been notified of the discharge.

If the discharge has not been stopped or clean-up efforts are still underway, some of the information will not be available at the time of reporting. There are comment boxes next to each of the questions, put 00 in the box that requests a number and add comments that the time, quantity, duration, amount recovered, etc. are under investigation and the information will be provided when it is available. After submitting the report, a confirmation will appear with the date and time the report was submitted, please print and save the confirmation page.

- 2) 5 Day electronic Reporting: Log onto the Regional Water Board online spill notification website at: <http://www.wbers.net/>
 - a. Log in under the "MWTP - Login Section"
 - b. User Name:
 - c. Password:
 - d. Provide answers to the following additional 7 questions that will be asked on the electronic reporting website:
 1. The methods used to delineate the geographical extent of the unauthorized discharge on receiving waters,
 2. The efforts undertaken to minimize public exposure to the unauthorized discharge,
 3. A visual observation of the impacts (if any) that were noted in the receiving water (e.g., fish kill, discoloration of water), and the extent of sampling if any was conducted,
 4. The corrective measures taken to minimize the impact of the unauthorized discharge
 5. The measures to be taken to minimize the chances of a similar unauthorized discharge occurring in the future,
 6. How (if necessary) its Spill Prevention and Contingency Plan or Operation & Maintenance Manual will be modified to minimize the chances of future unauthorized discharges, and
 7. The quantity and duration of the unauthorized discharge, and the amount recovered.

After submitting the report, a confirmation will appear with the date and time the report was submitted, please print and save the confirmation page.

Verbal Reporting to the RWB:

- 1) Verbal Report (if electronic reporting at their website is not possible): Include the information provided below and call the RWB Spill Hotline. Make sure the case number for OES is provided in the message and all underlined information that is available.

When Contacting the RWB, provide the following message:

“This is (employee name) from the Central Marin Sanitation Agency. I am calling to report that an overflow from the (location and treatment process) has occurred and was discovered at (date and time). It has resulted in a discharge to the storm drain system of approximately (gallons) for (minutes).- (*if known or state that we are determining the duration and amount discharged*). We have notified OES and the case number is (case #), Marin County EHS at (time), and the Coast Guard. We are performing an investigation of the incident and the findings will be included in the required electronic reporting system. If you have any questions please contact Environmental Services Manager, Robert Cole at 415-459-1455, extension 142.”

Sampling:

During normal business hours, Environmental Services (ES) staff will collect the below water samples. After business hours, Operations will collect the samples and place them in the laboratory sample refrigerator and notify ES staff.

- 1) Collect samples for ammonia and total and fecal coliform
- 2) Samples sites are the following:
 - a. drainage canal along the 580 freeway where the CMSA storm drain discharges
 - b. 100 feet upstream of the discharge point
 - c. 100 feet downstream of the discharge point

B. Final Effluent Exceedance

Description: Final effluent exceedances may occur if any of our instantaneous, daily, weekly, or monthly sampling or parameters exceed the limits specified in our permit. We have limits for the following compounds:

Compound	Analysis	Limit
Chlorine	On-Line Meter - Instantaneous	0.0 mg/L
Total Coliform	5 Sample Median	240 MPN/100 mL
	Daily Maximum	10,000 MPN/100 mL
pH	On-Line Meter - Instantaneous	range 6.0 - 9.0
Suspended Solids	Weekly Average	45 mg/L
	Monthly Average	30 mg/L
	Monthly Removal Average	85%
CBOD	Weekly Average	40 mg/L
	Monthly Average	25 mg/L
	Monthly Removal Average	85%
Cyanide	Daily Maximum	8.3 ug/L
Copper	Daily Maximum	22 ug/L
	Monthly Average	13 mg/L
Mercury	Monthly Average	0.087 ug/L
	Annual Mass Average	0.10 kg/mo
Oil and Grease	Monthly Average	10 mg/L
	Daily Maximum	20 mg/L
Acute Toxicity	11 Sample Median	90% survival
	11 sample 90 th percentile	70% survival
Chronic Toxicity	3 Sample Median	10 TUc
	Single Sample Maximum	20 TUc

Notification:

The RWB must be notified within 24 hours of discovery of the exceedance by telephone. A written report may be required to be submitted within 5 days or on a case-by-case basis the information may be included in the monthly SMR. The verbal message that is to be provided to the RWB should be stated in the following way:

“This is (employee name) from the Central Marin Sanitation Agency. I am calling to report a potential permit exceedance for (parameter) that may have occurred and we are performing an investigation. The findings of the investigation will be included in the monthly Self Monitoring Report. If you require a Report to be submitted at an earlier date, please contact our Environmental Services Manager, Robert Cole at 415-459-1455, extension 142.”

Reporting:

A verbal report to the RWB is required within 24 hours of discovery of the exceedance. The verbal report must be followed up by a written report in the monthly SMR or within 5 days if requested by the RWB. The information must include the parameter exceeded, the cause of the exceedance, and remedial actions to prevent the exceedance from recurring. Additional sampling results and findings from a potential investigation may also be required.

Sampling:

Required if the exceedance is for a daily, weekly, or monthly limit. Samples must be collected on a daily basis until the analytical results of the exceeded constituent have fallen below the permit limits.

C. Sanitary Sewer Overflows From SD#2 Pump Stations

Description:

Category 1 - All discharges of sewage resulting from a failure in the sanitary sewer that:

- A. Equal or exceed 1000 gallons, or
- B. Result in a discharge to a drainage channel and/or surface water; or
- C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Category 2 - All other discharges of sewage resulting from a failure in the sanitary sewer system - Reporting required in the monthly report that is submitted to the online database

Private Lateral Sewage Discharges - No reporting needed

Notification for Category 1 SSOs:

The OES, Marin County EHS, and RWB must be notified within **2 hours** of the discovery of the spill.

The CMSA staff member that observed an SSO from the SD#2 system shall immediately contact the SD#2 representative (see callout list) upon discovery of the spill. If the SD#2 representative cannot be contacted within one hour of the spill, or a message has been left with no response, contact the appropriate CMSA staff in the order listed in Section II and the spill will be reported by CMSA.

If CMSA staff make the initial report to the regulatory agencies on behalf of SD#2, the following statement shall be provided:

"This is (*employee name*) from the Central Marin Sanitation Agency. I am calling to report a sanitary sewer overflow from the Sanitary District #2 in Marin County. The SSO occurred at (*location*) and was discovered at (*time*). We have stabilized the situation, and are notifying Marin County EHS, and OES. SD#2 staff will perform an investigation of the incident and the findings will be included in their Online SSO Reporting. If you require further information from SD#2, please contact Sanitary Services Manager, Barry Hogue at 415-927-5061"

Reporting:

Verbal or electronic reporting to the RWB must be provided within two hours. Follow the Section IV - Notification and Verbal Reporting procedures listed above for reporting to the regulatory agencies. Certification that the OES and the Marin County EHS have been notified of the discharge must be provided to the RWB within 24 hours of discovery of the discharge. Write down the OES report or case number that will be provided when making the call. Additional reporting to the State Water Board's online SSO reporting system is required within 3 business days, and a final certified report is due within 15 calendar days. Provide the report and/or case number to SD#2 staff who will prepare the required reports.

Sampling:

CMSA staff will perform required sampling and analyses consistent with the requirements in Section IV -A

Control the Spill:

During business hours Sanitary District No. 2 will work with CMSA to resolve the situation. If Sanitary District No. 2 staff are not available, CMSA will take all necessary actions to stabilize the situation.

Determine the source of the spill as rapidly as possible and then correct the problem and minimize the damage. Depending on the circumstances, you may need to take several of the following steps:

- a. Call the necessary CMSA staff for help.
- b. Shut off flow from upstream pump stations.
- c. Dike, berm, sandbag or otherwise contain the spill to prevent it from entering a storm drain or body of water. If the spill has entered a storm drain you may be able to stop the sewage from discharging from the other end of the storm drain.
- d. Repair the leak.
- e. Secure the contaminated area (cones, barricades, signs etc.) to prevent public contact with the sewage.
- f. Post notification signage according to Section V.

D. Sanitary Sewer Overflows From Member Agency Collection Systems

Any SSOs observed within the SD#2, SRSD and RVSD collection systems shall be reported pursuant to Section II. CMSA will notify the member agency of the spill location and time it was observed. The member agency is responsible for the reporting and notification requirements in the State's General Waste Discharge Requirements for Collection Systems.

CMSA staff, as requested, should assist member agency staff with notification sign placement and water sample collection and analyses (Section IV-A). Generally and at a minimum, signs should be placed at the discharge location and 100 feet upstream and downstream of the discharge. See Attachment A for estimating SSO volumes.

V Public Notification

Signage:

CMSA maintains an inventory of Raw and Partially Treated Sewage notification signs for posting at recreational areas or locations where the public may potentially contact wastewater that was spilled into the stormdrain system, drainage channels, creeks, storage ponds, or lagoons downstream of the spill. Signs are kept in the maintenance shop, environmental services, and the SD#2 pump truck.

- 1) Post signs that state “Raw Sewage Avoid Contact” if a discharge of untreated wastewater occurs.
- 2) Post signs that state “Partially Treated Sewage Avoid Contact” if a discharge occurs from any treatment process after the primary clarifiers.
- 3) Notification signs shall be posted as soon as practically possible after discovery of an overflow at the treatment plant or SSO from an SD#2 pump station. Photograph the completed sign placement for the record.
- 4) For overflows from the CMSA plant, post signs at the locations shown on the attached Maps 2 and 3 if the discharge is at the west drainage channel, or Map 4 if from the east drainage channel.
- 5) For SSOs from SD#2 pump stations, coordinate with SD#2 on the appropriate locations to post the notification signs. Generally and at a minimum, signs should be placed at the discharge location and 100 feet upstream and downstream of the discharge. For large spills, space signs every 100' around the affected area.
- 6) Signs shall be left posted until the potentially affected area is cleared by Marin County Environmental Health Services and/or other appropriate regulatory agencies.

VI Public Reporting

When the public notifies Agency staff of a potential overflow or SSO, determine the location and if the discharge is from CMSA or a member agency. If from a member agency, notify the member pursuant to Section IV-D. If from CMSA, notify the appropriate CMSA staff member in Section II. If the public notification is on the weekend, holiday, or after normal Agency business hours, the OIC shall also send an email to the management staff in Section II that summarizes the event.

VII Attachments

Attachment A - Estimating Sanitary Sewer Overflow Volume
Map 1 - Overview of Spill Sign Locations
Map 2 - Sign Locations, West Zone Near Highway 580
Map 3 - Bayside Signs, West Zone Bayshore
Map 4 - Sign Locations, East Zone

ATTACHMENT A

ESTIMATING SANITARY SEWER OVERFLOW VOLUME

There are a variety of approaches for estimating the volume of sanitary sewer overflow. Here are three methods that are most often used. Use the method that is most appropriate for the sewer overflow in question and the best information available.

Method 1: Eyeball Estimate

This method can be useful for small spills up to 100 gallons. To use this method, imagine the amount of water that would spill from a bucket or barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and multiply by 50 gallons.

Method 2: San Diego Reference Chart

Review the attached chart. This method can be used for spills up to 275 gallons per minute. To use this method, estimate flow based on what the reference sheet has depicted in each of the 9 slides provided.

Method 3: Measured Volume

Most small spills can be estimated with this method. The shape, dimensions, and depth of the spilled wastewater are needed. The shape and dimensions are used to calculate the area of the spill and the depth is used to calculate the volume:

Step 1 - Sketch the shape of the contained sewage

Step 2 - Measure or pace off the dimensions.

Step 3 - Measure the depth at several locations

Step 4 - Convert the dimensions including depth to feet

Step 5 - Calculate the area using the following formulas:

Rectangle Area = length x width

Circle Area = radius squared x 3.14

Triangle Area = base x height x 0.5

Step 6 - Multiply area times the depth

Step 7 - Multiply the volume by 7.5 to convert it to gallons

Method 4: Duration and Flow

This method is used when it is difficult or impossible to measure area and depth. The volume of the spill is estimated by multiplying the duration (in hours or days) by the flowrate (in gallons per hour or gallons per day).

Duration: The time elapsed from the start of the spill to the time the spill has stopped. The following are some approaches that can be used to estimate duration.

Start time

Interview local residents to find out what they have observed. If the spill occurred out of public view, observations such as odors or sound (running water) can be used to estimate start time.

Check to see if there are any changes in a downstream flowmeter. Typically, the daily flow peaks are "cut off" or flattened by the loss of flow. Compare the hourly flowrate data.

Initially, there will be limited deposits of grease and toilet paper at the spill site. After a few days, the grease forms a light-colored residue. After a few weeks, the grease turns dark and the quantity of toilet paper and other materials will increase. These changes can be used to estimate start time in the absence of other information.

End Time

The time is estimated by observing the “blow down” that occurs when the blockage has been removed. The “blow down” can also be observed in downstream flowmeters.

Flowrate: Flowrate is the average flow leaving the sewer system at the time the spill has stopped. Two ways to estimate the flowrate are:

Flowmeter: Changes in flows in the downstream flowmeters can be used to estimate the flowrate during the spill.

Upstream Connections: Once the location of the spill is known, the number of upstream connections can be determined from the field books. Multiply the number of connections by 200 to 250 gallons per day per connection or 8-10 gallons per hour per connection.