

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



Incident Date:	7/13/2018-ongoing (for MM HAZ-3), 12/11/2019-1/28/2019 (for MM HYD-1)	Report No.:	NCR-004
Date Submitted:	1/29/2019	Location:	Standpipe in the detention basin
Level:	Level 2	Relevant Plan/Measure:	MM HAZ-3 (including SPCC Plan) and MM HYD-1 (including SWPPP)
Current Land Use:	Mesa substation expansion area	Sensitive Resources:	Public storm drain system

Description of Incident: On January 18, 2019 the CPUC Compliance Monitor observed that stormwater from a recent rain event was circumventing erosion control best management practices (BMPs), eroded the soil at the base of the detention basin standpipe, and rapidly flowed from the basin into the public storm drain system. As a result, the basin is not functioning as a secondary containment system as required by the Spill Prevention, Control, and Countermeasure (SPCC) Plan. In addition, the stormwater flowing from the basin into the public storm drain system was visibly heavily sediment-laden, which does not fulfill the intent of Construction General Permit and Stormwater Pollution Prevention Plan (SWPPP) requirements. Relevant photographs are included in Attachment 1.

Background:

Per the amended SPCC Plan (as well as the previous August 2018 version), the detention basin must function as a secondary containment system, in which oil would be contained in the event of a spill. Although the SPCC Plan allows the detention basin to have connections to the public storm drain system, all discharge outlets must be sealed off; accumulated water may be released manually upon completion of a visual inspection to ensure that oil-polluted water does not enter the storm drain system. Until adequate secondary containments (e.g., berms) are installed surrounding oil-containing project components, and SCE prepares and submits an approved amended SPCC Plan, the detention basin must continue to function as a full secondary containment system.

In late June 2018, SCE installed a standpipe with perforations on the bottom near the western edge of the large detention basin located on the western side of the substation expansion area (Photos 1-2). Prior to installation of the standpipe, the basin detained water for extended periods of time, meeting the SPCC Plan requirement that the basin function as adequate secondary containment during the construction phase. To maintain compliance with this requirement, in September 2019 SCE wrapped the standpipe in plastic sheeting (Visqueen) and installed gravel and sandbags around the base of the standpipe to ensure that water would not drain from the basin through the perforations in the standpipe (Photo 3). In addition to meeting SPCC Plan requirements, the basin and standpipe designs for the construction phase must meet SWPPP requirements. By sealing the standpipe perforations with plastic sheeting, the basin should detain water until water levels exceed the height of the standpipe (approximately 6 feet), at which point the water would flow into the opening on top of the standpipe; this system would allow sediments in the water column to settle to the bottom of the basin (and not flow off-site).

CPUC Compliance Monitor Observations:

On December 11, 2018, the CPUC Compliance Monitor observed that following recent rain events the plastic sheeting and other BMPs had failed, and that sediment-polluted water from the detention basin was bypassing the plastic sheeting and quickly flowing out of the detention basin through the standpipe (or along the standpipe) into the connected public storm drain system (Photos 4-6). After these observations, SCE proposed to correct these issues by repairing and strengthening the BMPs at the standpipe. On 1/4/2019, SCE re-wrapped the standpipe with plastic sheeting and tape, and installed additional BMPs (sandbags) surrounding the base of the pipe (Photo 7) to minimize the potential for loss of secondary containment and for sediment-polluted water to rapidly flow from the basin.

On January 18, 2019 the CPUC Compliance Monitor again observed sediment-polluted water rapidly flowing underneath failed plastic sheeting and BMPs, and exiting the detention basin via the perforations at the bottom of the standpipe (Photo 8). Although the severity of the storm prevented SCE staff from conducting stormwater pH and turbidity monitoring in the detention basin during this storm, SCE reported that stormwater monitored at Potrero Grande Drive indicated NAL exceedances for turbidity during rain events; similar or further elevated turbidity levels can be anticipated at other locations throughout the project site, including at the detention basin. In addition, the stormwater flowing from the basin was visibly heavily sediment-laden.

On January 28, 2019 the CPUC Compliance Monitor observed water being pumped from one of the conduit vaults into the detention basin. Because the BMPs at the standpipe had not been corrected since the January 18, 2019 observations, the basin did not detain the water, which was flowing off-site through the standpipe almost immediately (Photo 9).

Because sediment-polluted water is rapidly escaping the detention basin via the perforations near the base of the standpipe, it is evident that in the event of an oil spill, oil would not be adequately contained as required by the current SPCC Plan. Although the CPUC expressed repeated concerns about the potential for oil spills or sediment-polluted water to exit the Mesa Substation construction site and quickly enter the public storm drain system, SCE's repairs were inadequate to prevent such events from reoccurring.

Based on the descriptions above, the CPUC has determined that these incidents combined warrant a Level 2 Non-Compliance. Photographs documenting the incident are provided in Attachment 1.

Pertinent Plans/Permits/Mitigation Measures:

The Mitigation, Monitoring, Compliance, and Reporting Program (MMCRP) was created based on the Final Environmental Impact Report and serves as a working guide for maintaining environmental compliance for the Mesa Substation Project. The mitigation measures (MMs) and applicant proposed measures within the MMCRP are required to be followed by SCE, including the following, which are relevant to this non-compliance incident. Relevant portions of MMs and associated applicable plans (SPCC Plan and SWPPP) are provided below (with underlines) for reference.

MM HAZ-3: Spill Prevention, Control, and Countermeasure Plan. SCE shall prepare a site-specific SPCC plan that identifies spill response and prevention measures and BMPs. SCE shall indicate site-specific physical conditions that could exacerbate spills, such as drainages to the nearest water bodies. SCE shall name a representative that will be responsible for verifying that construction and operation activities adhere to the SPCC, including implementation of BMPs. SCE shall submit the SPCC to CPUC at least 30 days prior to delivery of any additional transformer oil to the site.

Relevant Sections of the Amended SPCC Plan, received 10/8/2019:

- Technical Amendment Cover Letter: “This technical change includes addition of three new 66 kV Ground Banks to the SPCC Plan's Oil Inventory and Figure 2. No other changes are made to the plan. Improvements are not required since the existing gravel bed and detention basin will provide adequate general secondary containment for the new ground banks.”
- Page 6: “The stormwater detention basin located on the very southwest end of the facility. Oil from spill, if not already retained by surrounding soil and gravel, will follow the general southwest grading and eventually end up in the detention basin. The detention basin has an outlet (connecting to public storm drain system) on the northern corner and a spout (to prevent overflow) on the southern end. During construction, there are also other outlets that will allow flow to reach to the public storm drain system or other water sources (i.e. groundwater). The detention basin outlet and other outlets will be sealed off during construction phase. Visual inspection will be perform prior to release of accumulated water from any of the outlets. The detention basin provides adequate secondary containment for the oil-filled equipment and containers are on site during construction phase.”

MM HY-1: Stormwater Pollution Prevention Plan. The applicant will obtain coverage for the project under the Construction General Permit (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The applicant will prepare a SWPPP to reduce the potential for water pollution and sedimentation from construction. BMPs to be included in the SWPPP that must be submitted to the SWRCB shall include, but are not limited to, the following:

- Runoff, sedimentation, and erosion would be minimized through the use of BMPs such as water bars, silt fences, staked straw bales, wattles, and mulching and seeding of all disturbed areas. These measures will be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water, and to preserve roadways and adjacent properties. BMPs would be included for areas where helicopters would be landed, fueled, and serviced or used for construction activities.
- Implement measures such as silt screens, cleanup of spills of hazardous materials, cleanup of sediment, secondary containment for hazardous materials, and avoidance of activities that disturb sediment or have a high potential for hazardous materials spills immediately before or during rain to prevent polluted (with sediment or hazardous materials) runoff from staging areas from draining into water ways such as washes, drainages, and ditches and from entering municipal storm drain systems.

Verification of Construction General Permit coverage approval and the approved SWPPP(s) will be provided to the California Public Utilities Commission (CPUC) at least 30 days prior to start of construction. Updated SWPPPs will be provided to the CPUC on request during construction.

Relevant Sections of the Construction General Permit Order No. 2009-0009-DWQ, as Amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ

- Construction General Permit, page 13, Section F, Effluent Standards for All Types of Discharges: Permits for storm water discharges associated with construction activity must meet all applicable provisions of Sections 301 and 402 of the CWA. These provisions require controls of pollutant discharges that utilize best available technology economically achievable (BAT) for toxic pollutants and non conventional pollutants and best conventional pollutant control technology (BCT) for conventional pollutants. Additionally, these provisions require controls of pollutant discharges to reduce pollutants and any more stringent controls necessary to meet water quality standards.
- Construction General Permit, page 48, Section M, Storm Water Pollution Prevention Plans: The SWPPP must be implemented at the appropriate level to protect water quality at all times throughout the life of the project. A SWPPP must be appropriate for the type and complexity of a project and will be developed and implemented to address project specific conditions.

Proposed Resolution:


The CPUC requests that SCE develop and incorporate a strategy to ensure that the detention basin functions as described in the SPCC Plan. The design should ensure that in the event of an oil spill (before the permanent berms surrounding the transformers are completed), the oil would be fully contained onsite, including within the detention basin if the oil were to reach that area. The design should ensure that no spilled fluids escape the detention basin into the storm drain system until an adequate visual inspection is first completed. If the visual inspection identifies no oil within the detention basin, the fluids may be manually released from the basin. An effective design would also ensure that sediment-polluted stormwater does not exit the Mesa Substation Site until the sediments have sufficiently settled from the water column. This may require permanent water retention—with the exception of infiltration—until the permanent secondary containment on the project are completed and functional.

UPDATE: On February 1, 2019 SCE submitted a description of their response to NCR-004, including corrective actions that were implemented to address compliance issues related to SPCC Plan and SWPPP requirements. Corrective actions included installation of temporary containment berms at project components containing transformer oil (the “banks”), and erosion control

BMPs (sediment filter fabric and gravel) at the basin standpipe. See attachment 2 for details. CPUC has reviewed SCE's submittal and determined that the implemented corrective actions are appropriate and are consistent with the requirements of the SPCC Plan and SWPPP.

Recommended Timeline for Follow-up: The CPUC requests that SCE develop and implement a strategy to seal the standpipe immediately.

UPDATE: On February 1, 2019 SCE reported that it implemented corrective measures on January 29, 2019 to address the non-compliance issues (see Attachment 2). CPUC requests that SCE monitor these measures closely during and after rain events, and report any deficiencies or failures to CPUC in a report. If deficiencies or failure of these measures are observed, additional corrective actions may be required.

Approvals	Date	Name (print)	Signature	Comments
CPUC Compliance Manager	2/5/2019	Ilja Nieuwenhuizen		
CPUC Compliance Monitor (if applicable)				
CPUC Project Manager (if applicable)	2/5/2019	Lisa Orsaba		
SCE Environmental Project Manager (if applicable)				

Prepared by: Aileen Cole, Ilja Nieuwenhuizen

Date: 1/29/2019

Non-compliance Level	Example
<p>A Level 1 non-compliance incident is an action that deviates from project requirements or results in the partial implementation of the mitigation measures, but has not caused, nor has the potential to cause impacts on environmental resources.</p>	<ul style="list-style-type: none"> i. Failure to implement adequate dust control measures resulting in no impact on resources; ii. Improperly installed, repaired, or maintained erosion or sediment control devices (with no resultant harm to sensitive resources or release of sediment to waters); iii. Inadvertent minor incursion into exclusion area resulting in no harm to sensitive biological or cultural resources; iv. Work outside the approved work limits where the incident is within a previously disturbed area, such as a gravel lot
<p>A Level 2 non-compliance incident is an action that deviates from project requirements or mitigation measures and has caused, or has the potential to cause minor impacts on environmental resources.</p>	<ul style="list-style-type: none"> i. Work without appropriate permit(s) or approval; ii. Failure to properly maintain an erosion or sediment control structure, but the structure remains functional, and results in minor impacts on resources (e.g. water courses); iii. Working outside of approved hours; iv. Repeated documentation of Level 1 incidents
<p>A Level 3 non-compliance incident is an action that deviates from project requirements and has caused, or has the potential to cause major impacts on environmental resources. These actions are not in compliance with the APMs, mitigation measures, permit conditions, approval requirements (e.g. minor project changes, notice to proceed), and/or violates local, state, or federal law.</p>	<ul style="list-style-type: none"> i. Construction activities occurring in an exclusion zone with direct impacts to sensitive or endangered species, cultural resources, human remains, or an archaeological site; ii. Eminent danger or documented impact to a sensitive or T&E species; iii. Repeated deviations from required mitigation measures/requirements that have been documented as Level 2 (Minor Incidents); iv. Improper installation of erosion or sediment control structures resulting in substantial sedimentation or impacts to water quality or putting sensitive resources at risk

Attachment 1

NCR-004 Incident Photographs



Photo 1: Standpipe in the bottom of the detention basin. Note the perforations along the bottom of the pipe. Photo taken 7/13/2018.



Photo 2: Detention basin standpipe with added gravel and gravel bags at base. Photo taken 8/28/2018.



Photo 3: Detention basin standpipe. SCE installed plastic Visqueen sheeting over the standpipe, including the perforations along the base. Photo taken 9/19/2019.



Photo 4: Water line from recent major rain event visible along the banks of the detention basin (water line extends approximately 4-5 feet above the floor of basin). Basin has minimal standing water remaining despite recent high water levels. Photo taken 12/11/18.



Photo 5: Failed plastic Visqueen sheeting and sandbags surrounding the basin. Perforations visible at base of standpipe. Photo taken 12/11/18.



Photo 6: Close-up of the standpipe in the detention basin, with perforated holes allowing sediment-polluted water to quickly run offsite. Photo taken 12/11/2018.



Photo 7: SCE repaired BMPs around the standpipe; plastic sheeting, tape, and additional sandbags reinstalled along the base. Photo taken 1/4/2019, by SCE.



Photo 8: Water rapidly exiting the detention basin from area near the bottom of the standpipe following a large rain event. Water flowing under the plastic sheeting. Photo taken 1/18/2019.



Photo 9: Water rapidly exiting the detention basin from area near the bottom of the standpipe following dewatering of a conduit vault. Water flowing under the plastic sheeting. Photo taken 1/28/2019.

Attachment 2

NCR-004 SCE Response:
Corrective Measures

February 1, 2019

Lisa Orsaba
Project Manager
State of California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Re: SCE Response to Non-Compliance Report No. 004

Lisa,

SCE is providing response to Non Compliance #004, submitted January 29, 2019.

As you are aware, on January 24, SCE responded to CPUC's previous concerns related to the performance of the basin and the standpipe. At that time we determined, and we continue to believe, that the basin was functioning as designed, and in compliance with the SWPPP. We recognize it is not feasible for the basin to also function as temporary SPCC containment, and have made changes in the field as outlined below.

To allow the basin to continue to function as designed and installed, and since the basin will no longer be utilized for containment, the standpipe should not be sealed. However, this week we implemented additional BMPs to the standpipe within the basin. These adjustments, completed Tuesday, January 29 will allow the basin to continue to effectively function as designed, which is not to retain water, but to allow accumulated water to draw down, allowing flows to be temporarily detained for pollutant settlement. All previous BMPs were excavated from around the pipe and the pipe was lined with filter fabric. The pipe was then buried with 3" minus rock to a depth of 6 feet. This will provide additional filtration of sediment from the water as it flows through the rock and filter fabric. See photo 8. However, the sediment basin is functioning as designed and we have seen no evidence of sedimentation in the storm drain junction downstream of the sediment basin, as shown in the attached photo. See photo 9.

Due to the recent abnormally heavy and prolonged rain events, we recognize that although the basin is compliant with the SWPPP, it is not able to function as both a retention basin and temporary SPCC containment. To address the need for alternate SPCC containment, SCE implemented temporary SPCC containment at the bank locations, which is the only potential source for oil spills. This work was completed this week, Wednesday, January 30. With the implementation of containment at the bank locations, the basin will no longer function as temporary SPCC containment. SCE's contractor is already nearly complete with installation of the permanent SPCC for the "A" banks, and it is currently in a temporary configuration allowing any spill to be fully contained within the designed trench, as shown in the pictures attached. The contractor has also installed temporary SPCC containment for the "B" banks, consistent with the permanent design which is not yet built. See photos attached, as follow;

- Photos 1a shows the "A" banks (on the dirt side) with the permanent SPCC trench.
- Photo 4 shows the opening where the trench will be tied into the drainage pipe that is currently open (waiting on the shutoff valve to be built)
- Photos 1-3 show the measures installed to isolate the open pipe from the SPCC trench. The pipe was covered in plastic then sealed off with gravel bags. The plastic was then wrapped over the bags, and additional bags were installed to seal the plastic cap.

- Photos 5-7 show the temporary berm around the “B” banks. The temporary berm is buried to the soil beneath the rock; plastic lined the trenched rock and gravel bags were installed 4 bags high; the plastic was then wrapped around the gravel bags to create an impermeable barrier. Drainage valves were installed as identified on the permanent SPCC berm drawings.

SCE will work to immediately update the SPCC Plan for Mesa Substation to reflect the current conditions on site and will submit it to the CPUC by February 11, but felt it necessary to take these steps as quickly as possible given the impending rain.

Please let us know if you have any questions or concerns.

Lori Iles-Rangel
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Photo 1



Photo 1a



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6 Temporary Containment Berms



Photo 7 Temporary Containment Berms



Photo 8 Gravel installed over sediment filter fabric at basin standpipe