Aliso Canyon Turbine Replacement Project
Construction Non-Compliance Report

Incident Date:	March 5, 2015	**Report No.:**	NCR-03
Date Submitted:	April 16, 2015	**Location:**	Aliso Canyon Natural Gas Storage Field
Level:	Level 3 Non-Compliance	**Relevant Plan/Measure:**	MMCRP; SWPPP; NPDES General Permit; APM BR-1b; APM BR-2; APM BR-5; APM GE-2; NTP-3
Current Land Use:	Disturbed; Coast live oak	**Sensitive Resources:**	Hydrology, Biology (Oak trees)

Description of Incident:

On Saturday February 28, 2015 a forecasted storm began to drop rain on the Aliso Canyon Natural Gas Storage Field. Rain continued throughout Sunday before turning to intermittent showers on Monday March 2, 2015. Prior to the storm event, and as outlined in the Storm Water Pollution Prevention Program (SWPPP), SCG completed a Rain Event Action Plan (REAP) on February 26, 2015. The weekend storm forecast predicted a 60 percent chance of rain and total of 0.46 inch of precipitation. Actual precipitation over the course of the storm totaled approximately 2 inches of rain.

On Thursday March 5, 2015 during the weekly site inspection visit, the CPUC's Compliance Monitor, Vince Semonsen, noticed evidence of erosion at the Natural Substation and Natural Substation Access Road work site (Natural Substation). According to the Compliance Monitor, no BMPs were installed on steep slopes with exposed soil, including on the access road being constructed, causing water to reach a high speed as it moved uninhibited down these slopes. Some BMPs (e.g., fiber rolls) were installed around the perimeter of the work site, but sediment-laden water traveling at high speed overtopped perimeter BMPs. Runoff subsequently traveled into the adjacent oak tree swale, causing erosion and transporting sediment into the oaks.

In accordance with the project's MMCRP, proper BMPs (e.g., silt fencing, fiber rolls on steep slopes) should have been installed to prevent erosion and, in particular, to protect the oak trees from sediment deposition (APM GE-2). Photos from the inspection show erosion rills down the middle of the access road that was being constructed, an overflowed excavation/containment area at the base of the access road, missing and degraded BMPs, and evidence of erosion and sediment deposition under the oak tree canopy below the Natural Substation (see Attachment 1). In addition, no exclusionary fencing to protect the oak trees had been installed, as required by APM BR-1b, APM BR-2, and APM BR-5.

In addition, the National Pollutant Discharge Elimination System (NPDES) General Permit requires SCG to comply with specific BMPs and Numeric Action Limits (NALs), as authorized by the Federal Clean Water Act. The SWPPP and REAP are methods designed to ensure compliance. The General Permit requires SCG to comply with BMPs for Erosion Control and Sediment Control, including:

- ECM-b – Provide effective soil cover for inactive areas and all finished slopes, open space, utility backfill, and completed lots.
- SC-c – Implementing appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for **areas under active construction.**

In accordance with the General Permit, project Numeric Action Limits have been established for pH and turbidity. Effluent sampling, required during certain storm events by the General Permit and SCG's SWPPP, did not occur at the Natural

Substation site during this storm due to safety concerns by SCG. However, pH and turbidity measurements from other sampling sites at the Storage Field were outside the project's Numeric Action Limit range. The documented exceedances provide evidence of stormwater controls at these locations during this storm. Given the deep riles and clear evidence of soil movement seen after the storm, and that samples from nearby sites displayed pH/turbidity exceedances, it is possible that had samples been collected from the Natural Substation location, they may have also exceeded the project's Numeric Action Limits. Dischargers with NAL exceedances are required to immediately implement additional BMPs and revise the SWPPP, and NAL exceedances must be reported in the State Water Boards SMARTS system.

In the two weeks leading up to the February 28 storm, recommended corrective actions from the SWPPP Weekly Inspection reports included placement of BMPs on inactive slopes around the Natural Substation and the placement of fiber rolls every 10 feet perpendicular to slopes. Documentation of BMPs at the Natural Substation during and directly following the storm showed failure of BMPs and absence of corrective actions taken per the previous recommendations. Corrective action recommendations appear in each Weekly SWPPP Inspection Report and are required to begin within 72 hours of their identification. Repetition of the same corrective action recommendation and identical photos across successive weeks indicate that corrective actions are not always started within the required time frame. SCG has cited the status of an area as "active" as the reason for not taking corrective action/installing BMPs. However, SCG's SWPPP and the General Permit require BMPs for Erosion Control and Sediment Control in areas of utility backfill and areas of active construction, as well as other areas.

The CPUC/E&E team has communicated regularly with SCG regarding BMPs and storm water management at the Aliso Canyon Project Site since November 2014. Disrepair and absence of erosion control BMPs at several SCG project locations in the Aliso Canyon Storage Facility have been previously documented. The incident at the Natural Substation represents a failure to control erosion and sedimentation, fully protect the oak trees, and properly follow the General Permit and SWPPP. SCG has committed to control sediment by following the SWPPP which includes the appropriate use of silt fencing, fiber rolls, jute netting, mulch, and/or straw, etc. (SWPPP Sec. 4.5: See Sediment Measure ID Numbers SC-a, SC-c, SD-d). Repeated failure to adequately maintain and establish recommended BMPs, and failure to prevent slope erosion and sedimentation of offsite areas constitutes a Level 3 Non-Compliance.

Pertinent Plans/Permits/Mitigation Measures:

- By failing to provide adequate BMPs to prevent erosion at the Natural Substation and sediment deposition into an adjacent oak swale, SCG violated APM GE-2.
- By failing to establish appropriate fencing around native oak trees below the Natural Substation, SCG violated APM BR-1b, APM BR-2, and APM BR-5.
- By failing to ensure compliance with project APMs and mitigation measures, SCG violated their responsibilities identified in the MMRCP and NTP-3.
- By failing to implement sufficient BMPs for Erosion Control and Sediment Control at the Natural Substation site, SCG did not follow their NPDES General Permit and Storm Water Pollution Prevention Plan.

Proposed Resolution:

On March 10 the Project's CPUC Compliance Monitor documented erosion and BMP concerns at the Project site, particularly in the area of the Natural Substation, and contacted the CPUC compliance team to discuss these concerns. The Compliance Manager subsequently contacted the CPUC Project Manager and SCG to set up a conference call. The Compliance Manager also contacted E & E engineer, Jim Peterson, to review SCG's SWPPP, review photodocumentation of the site's current conditions in detail, and provide recommendations for resolving BMP concerns. On March 12 the CPUC/E & E team and SCG participated in a conference call. During the call, SCG articulated that they planned to order additional BMPs (e.g., fiber rolls).

On March 16 the CPUC/E & E team sent an email with follow-up questions that still remained after the conference call. SCG provided detailed responses to these questions on March 23 (see Attachment 2). Responses to the CPUC/E&E's data request concerning BMPs communicate that SCG has new strategies to deploy BMPs in the event of a storm and will begin a BMP Tracker to report how and when SWPPP inspection report deficiencies are addressed. However, the responses also indicate that SCG continues to have difficulties establishing BMPs in large, steep active construction areas. Given that erosion control and sediment control are required, even in active construction areas and fill sites, the CPUC/E&E is concerned the adjustments made by SCG to address ongoing issues with BMPs is not entirely sufficient to ensure compliance with the Construction General Permit.

CPUC/E&E recommendations:

- Waiting for the forecast to predict that a storm is at least 50% likely before installing BMPs in active construction areas is not erring on the side of caution and increases the risk of being caught without enough time to prepare BMPs. As in the case of the March 2015 storm, the forecast changed quickly from when it was initially forecasted as small and unlikely on a Thursday/Friday to certain and large over the weekend. SCG should consider installing BMPs on active slopes if no work will occur on a slope for several days, especially if there is a chance of precipitation;
- While active construction is occurring and some slopes are not protected by BMPs, SCG should consider increasing perimeter/runoff control and runon control beyond what would be needed if slopes were also protected;
- The CPUC remains concerned about the high risk of erosion and sedimentation from storms on the Aliso Canyon Project Site and would like to see SCG manage BMPs more rigorously.

Approvals	Date	Name (print)	Signature	Comments
CPUC Compliance Manager	4/16/2015	Lara Rachowicz	Lara Rachowicz	
CPUC Compliance Monitor (if applicable)				
CPUC Project Manager (if applicable)	4/16/15	Andrew Barnsdale		
SoCalGas/SCE Environmental Compliance Manager (if applicable				

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Attachment 1

Photos from March 5, 2015