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PROJECT MEMORANDUM

PG&E EMBARCADERO-POTRERO 230 KV TRANSMISSION PROJECT

To: Billie Blanchard, Project Manager, CPUC
From: Vida Strong, Aspen Project Manager
Date: August 18, 2016
Subject: Monitoring Report #99 – August 8, 2016 to August 14, 2016

This report provides a summary of the construction and compliance activities associated with the PG&E Embarcadero-Potrero (E-P) 230 kV Transmission Project.

A summary of the Notices to Proceed (NTPs) for construction and Minor Project Change (MPC) activities are provided in Tables 1 and 2, respectively (below).

CPUC Environmental Monitor (EM): Jody Fessler was onsite August 9th.

CPUC NTPs

E-P Potrero Switchyard Site Preparation

NTP #1 was issued on August 21, 2014 for the site preparation of the Potrero Switchyard on 23rd Street adjacent to the existing Potrero Substation on the corner of 23rd Street and Illinois Street in San Francisco. NTP #1 included conditions that had to be satisfied prior to the start of construction.

Summary of Activity:

1. Site preparation activities have been completed and all work is now being conducted for the GIS building and cable tie-in work approved by the CPUC under NTP #5 (see below).

Environmental Compliance:

1. All environmental compliance monitoring will be reported below for the GIS building and cable tie-in work.

E-P Horizontal Directional Drill (HDD) Construction

NTP #2 was issued on August 28, 2014 for the HDD Construction on Spear Street, at the northern end of the project, and 23rd Street, at the southern end of the project, in San Francisco. Both HDDs would terminate within the San Francisco Bay and will be tied together in the future via a subsea cable. NTP #2 included conditions that had to be satisfied prior to the start of construction, as well as prior to the start of any work in the Bay.

Summary of Activity at the Northern Bore (Spear Street):

1. The HDD work is complete and HDD Company demobilized from the site during Week #26.

Summary of Activity at the Southern Bore (23rd Street):

1. The HDD work is complete and HDD Company demobilized from the site during Week #26.

E-P Underground Duct Bank Construction

NTP #3 was issued on October 9, 2014 for the underground duct bank and vault installation component of the Embarcadero-Potrero 230 kV Transmission Project between the horizontal directional drill (HDD) transition on Spear Street to the Embarcadero Substation on Folsom Street in the northern section, and between the HDD transition on 23rd Street to the Potrero Switchyard in the southern section, in the City of San Francisco. NTP #3 included conditions that had to be satisfied prior to the start of construction.

Summary of Activity for the Duct Bank North (Folsom St. and Spear St.):

Folsom Street

1. All work activities have been completed at this location.

Spear Street, Duct Bank and Vault (between Folsom St and Harrison St)

1. Sumitomo and NRE conducted wire splicing and installed grounds in the transition vault on Spear Street Monday through Wednesday.
2. Rosendin conducted work on the fiber optics cable on Saturday.
3. At the time of the CPUC EM site visit on August 9th, no crews were observed working.

Environmental Compliance:

1. PG&E's Environmental Inspector (EI) conducted monitoring of this area on Monday and Thursday, including SWPPP inspections and nesting bird sweeps. No biological finds were noted.
2. PG&E's EI noted one housekeeping or compliance issues at this location.
 - On August 8th, a sandbag protecting a drainage inlet on Spear Street had burst open. PG&E was informed and on August 11th, the PG&E EI noted that the sandbag had been removed and the sand was swept up.
3. The CPUC EM observed that the site was neat and clean, and that SWPPP measures were in place. All observed work activities were in compliance with mitigation measures (MMs), Applicant Proposed Measures (APMs), and other permit requirements.

Summary of Activity for the Duct Bank South (23rd Street):

23rd Street, Duct Bank and Vault

1. APEC excavated for the water and sewer line tie-in in front of the easternmost gate south of the switchyard Monday and Wednesday through Friday.
2. APEC installed a storm drain in the excavation for the water and sewer tie-in in front of the westernmost yard gate south of the switchyard Monday through Friday.
3. Sumitomo and NRE installed racking, cut cable, and prepared to splice cable in the transition vault on 23rd Street Monday through Friday (see Figure 1).
4. At the time of the CPUC EM site visit on August 9th, no crews were observed working.

Environmental Compliance:

1. PG&E's Environmental Inspector (EI) conducted monitoring of this area on Monday and Thursday, including SWPPP inspections and nesting bird sweeps. No biological finds were noted.

2. Cultural monitoring was conducted by Far Western Monday, Wednesday through Friday, and cultural constituents were observed.
3. PG&E's EI noted no housekeeping or compliance issues at this location.
4. The CPUC EM observed that the site was neat and clean, and that SWPPP measures were in place. All observed work activities were in compliance with mitigation measures (MMs), Applicant Proposed Measures (APMs), and other permit requirements.

E-P Submarine Rock and Debris Removal

NTP #4 was issued on November 21, 2014 for the removal of rock obstructing the path of the submarine cable component of the Embarcadero-Potrero 230 kV Transmission Project along the submarine cable line and off shore of Pier 50 in the San Francisco Bay. NTP #4 included conditions that had to be satisfied prior to the start of construction.

Summary of Activity:

1. All work activities related to NTP #4 have been completed.

Environmental Compliance:

1. No compliance monitoring was necessary at this location.

E-P Potrero GIS Building and Cable Tie-in

NTP #5 was issued on March 27, 2015 for construction of the 230 kV Potrero gas-insulated switchgear (GIS) building and cable tie-in component of the Embarcadero-Potrero 230 kV Transmission Project at the Potrero Switchyard site, in the City San Francisco. NTP #5 included conditions that had to be satisfied prior to the start of construction.

Summary of Activity:

Potrero Switchyard

1. Office trailer use occurred Monday through Sunday.
2. Overaa aided other work crews and conducted housekeeping and dust control activities Monday through Sunday.
3. Overaa drilled the outside walls of the GIS building, installed metal hangers, and welded hangers for the installation of the architectural panels Monday through Sunday (see Figure 2).
4. Flowable thermal backfill (FTB) was poured around the transformer on Tuesday (see Figure 3).
5. ACME installed door alarms inside the GIS building Monday through Friday.
6. CCE installed infrastructure and conducted electrical work in the GIS building Monday through Sunday.
7. Spencer Masonry installed rebar, bricks, and mortar for the perimeter wall Monday through Friday (see Figure 4).
8. Nexans conducted work on the 115 kV cables in the GIS building basement Monday through Sunday.
9. Scaffolding Solutions Inc. installed and removed scaffolding at multiple places inside the GIS building Monday through Sunday.
10. CER installed condenser and SAC units on the GIS building on Monday and Tuesday.

11. MEI installed condenser units on the GIS building on Monday.
12. MEI installed lights on the GIS building Wednesday through Sunday.
13. APEC installed rebar and concrete for the firewall Wednesday through Friday.
14. Clean Harbors replaced roll-off bins Monday through Sunday.
15. At the time of the CPUC EM site visit on August 9th, crews were pouring FTB around the transformer, building the perimeter wall, installing panels on the GIS building, and working in the GIS building.

Substation Adjacent to Potrero Switchyard

1. CCE conducted electrical work on the 115 kV bus Monday through Sunday.
2. CCE QEW monitored work in the substation Monday through Sunday.
3. CCE cut materials and constructed metal infrastructure for use in the GIS building Monday through Sunday.
4. At the time of the CPUC EM site visit on August 9th, crews were conducting electrical work on the 115 kV bus and within the electrical room.

Environmental Compliance:

1. Cultural monitoring was conducted by Far Western Monday through Friday in the southeast corner of the Switchyard, and cultural constituents were observed.
2. Air quality monitoring was conducted by ERM Monday through Sunday.
3. PG&E's Environmental Inspector (EI) conducted monitoring of this area on Monday and Thursday, including SWPPP inspections and nesting bird sweeps. No biological finds were noted.
4. PG&E's EI noted two new housekeeping and compliance issue:
 - On August 8th, a stockpile in the southeast corner of the yard had no containment and nothing from keeping it from slipping through the fence. It was recommended that fiber rolls be placed around the stockpile. On August 11th, the PG&E EI observed that the stockpile had been removed.
 - On August 11th, there was a build-up of cigarette butts in the staging area at the northern end of the project site.
5. The following previous housekeeping and compliance concern was rectified:
 - On August 4th, secondary containment holding water and concrete slurry from project activities (e.g. mortar mixing) was not functioning properly and was not built per the project SWPPP specifications. On August 8th, the PG&E EI observed that the concern was rectified.
 - On August 2nd and 4th, litter was observed accumulating at several locations in the Switchyard. On August 8th, the PG&E EI observed that the concern was rectified.
6. The CPUC EM noted the stockpile of rubble and soil at the southeast corner of the Switchyard on August 9th (see Figure 5). The CPUC EM discussed the issue with the PG&E EI and it was agreed that it should be removed or covered, as it could potentially contain serpentine soil. On August 11th, the PG&E EI noted that the stockpile had been removed from the site. Other than that, the CPUC EM observed that the site was neat and clean, and that SWPPP measures were in place. All observed work activities were in compliance with mitigation measures (MMs), Applicant Proposed Measures (APMs), and other permit requirements.

E-P Submarine Cable Installation

NTP #6 was issued on April 7, 2015 for the submarine cable installation component of the Embarcadero-Potrero 230 kV Transmission Project in the San Francisco Bay. NTP #6 included conditions that had to be satisfied prior to the start of construction.

Summary of Activity:

1. All work activities for the submarine cable installation were completed during Week #50.

Amador Staging and Laydown Yard

A Minor Project Change #1 was issued on July 23, 2014 for the use of the Amador Staging and Laydown Yard on Amador Street, San Francisco. The Minor Project Change #1 included conditions that had to be satisfied prior to the staging of equipment and materials at the yard.

Summary of Activity:

1. All remaining materials were removed on December 7th and the yard has been turned back over to the Port of San Francisco.

Environmental Compliance:

1. No compliance monitoring was necessary at this location.

Notices to Proceed

Table 1 summarizes the Notices to Proceed (NTP) for the Embarcadero-Potrero Project.

Table 1
Notice to Proceeds (NTPs)
(Updated 08/18/16)

NTP #	Date Requested	Date Issued	Phase	Description
NTP #1	6/23/14	8/21/14	Potrero Site Preparation	Site preparation and excavation of the 230 kV Potrero Switchyard site on 23 rd St., SF.
NTP #2	7/31/14	8/28/14	HDD	Horizontal directional drilling on Spear St. and 23 rd St. connecting to the SF Bay.
NTP #3	9/18/14	10/09/14	Underground Duct Bank and Vaults	Underground duct bank and vault installation between the HDD transition on Spear St. to the Embarcadero Substation on Folsom St. in the northern section, and between the HDD transition on 23 rd St. to the Potrero Switchyard in the southern section, SF.
NTP #3 MOD	11/13/14	11/14/14	Underground Duct Bank and Vaults	Trench from the new Potrero Switchyard to the existing switchyard for the 230 kV/115 kV connections across the Trans Bay Cable.
NTP #4	11/19/14	11/21/14	Subsea Cable	Rock and debris removal along subsea cable route.
NTP #5	2/19/15	3/27/15	Potrero GIS Switchgear Building	Construction of 230 kV Potrero gas-insulated switchgear (GIS) building and cable tie-in component at Potrero Switchyard.

Minor Project Changes

Table 2 summarizes the Minor Project Changes submitted for the Embarcadero-Potrero Project.

Table 2
Minor Project Changes (MPCs)
(Updated 08/18/16)

MPC #	Date Requested	Date Issued	Phase	Description
MPC #1	7/16/14	7/23/14	Amador Staging and Laydown Yard	Use of an existing staging and laydown yard adjacent to Alternate Staging Area #3 (as identified in the IS/MND) on Amador St., SF.
MPC #2	12/31/14	1/5/15	Staging and Laydown Yard	Use of an existing paved staging and laydown yard at 1215 Michigan Street, SF, two blocks from the Potrero Switchyard.

PROJECT PHOTOS



Figure 1: Sumitomo and NRE installed racking, cut cable, and prepared to splice cable in the transition vault on 23rd Street, August 9, 2016.



Figure 2: Overaa installed the architectural panels on the GIS building, August 9, 2016.



Figure 3: Flowable thermal backfill (FTB) was poured around the transformer, August 9, 2016.



Figure 4: Spencer Masonry installed rebar, bricks, and mortar for the perimeter wall, August 9, 2016.



Figure 5: Stockpile of rubble and soil at the southeast corner of the Switchyard to be removed or covered, August 9, 2016.