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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: February 4, 2016
Subject: Monitoring Report #71 – January 25, 2016 to January 31, 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 on site January 28th.

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. All work activities have been completed at this location except the pulling of conductor cable, which will be done at a later time.

Environmental Compliance:

1. No compliance monitoring was necessary at this location.

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

23rd Street, Duct Bank and Vault

1. All work activities have been completed at this location except the pulling of conductor cable, which will be done at a later time.

Environmental Compliance:

1. No compliance monitoring was necessary at this location.

E-P Submarine Rock and Debris Removal

NTP #4 was issued on November 21, 2014 for the rock removal 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 conducted housekeeping and dust control activities Monday through Sunday.
3. Overaa aided other work crews Monday through Sunday.
4. Overaa conducted structural repairs to the GIS building on Thursday and Friday.
5. Metal Set installed stairs in the GIS building on Monday and Tuesday.
6. Metal Set welded in the GIS building on Wednesday and Thursday.
7. B.T. Mancini installed pan decking in the GIS building on Monday and Tuesday.
8. MEI conducted electrical work in the GIS building Monday through Friday.
9. CMC installed rebar on the roof of the GIS building Monday through Friday.
10. CMC conducted rebar layout on the first floor of the GIS building on Friday.
11. APEC conducted demolition of a concrete footing east of the GIS building on Monday.
12. APEC removed pavement north of the control room on Wednesday and Friday.
13. APEC excavated a trench for GIS building power cable north of the control room Wednesday through Friday.
14. APEC installed cable trays in the trench north of the control room on Friday.
15. APEC installed rebar at the transformer pad Monday through Friday through Sunday.
16. APEC built concrete forms at the transformer pad on Tuesday and Wednesday.
17. APEC augured for ground rods at the transformer pad on Thursday.
18. ERS exposed waterproofing in preparation for re-installation on the GIS building Monday through Saturday.
19. CCE installed grounding in the control room basement Monday through Friday.
20. At the time of the CPUC EM site visit on January 28th, crews were welding and conducting electrical work in the GIS building, excavating a trench for GIS building power cable, installing rebar at the transformer pad, and preparing for re-installation of waterproofing on GIS building (see Figures 1 – 4).

Substation Adjacent to Potrero Switchyard

1. CCE QEW monitored work in the substation Monday through Friday.
2. APEC conducted housekeeping and dust control activities Monday through Friday.
3. APEC excavated, installed conduit, and installed grounding cable Monday through Friday.
4. APEC backfilled Monday through Wednesday, and Friday.
5. APEC demolished concrete foundations on Thursday and Friday.
6. APEC installed forms on Thursday and Friday.
7. At the time of the CPUC EM site visit on January 28th, crews were installing conduit and grounding cable, and excavating around an old foundation for removal.

8. No work activities occurred on Saturday or Sunday.

Environmental Compliance:

1. Cultural monitoring was conducted by Far Western Monday through Friday, at which time cultural constituents were observed, documented, and some collected.
2. Air quality monitoring was conducted by ERM Monday through Friday.
3. PG&E's Environmental Inspector conducted monitoring of this area Tuesday through Friday, including SWPPP inspections.
4. PG&E's Environmental Inspector noted several compliance issues at this location:
 - On January 27th, the PG&E Environmental Inspector noted pieces of scattered plastic along the east side of the Potrero Switchyard. On January 29th, the PG&E Environmental Inspector observed that the loose pieces of plastic had been picked up.
 - On January 28th, track-out was noted by the PG&E Environmental Inspector on 23rd Street south of the Potrero Switchyard from an auger used by APEC. On January 29th, the PG&E Environmental Inspector observed that the track out had been adequately cleaned up.
 - On January 28th, the PG&E Environmental Inspector noted a generator being used by APEC without secondary containment at the Switchyard. On January 29th, the PG&E Environmental Inspector observed that the generator had secondary containment installed underneath of it.
 - On January 28th, the PG&E Environmental Inspector noted a lighting structure was leaking oil (approximately ¼ cup) on the ground in the Switchyard. The PG&E Environmental Inspector recommended (1) cleaning oil from pavement with spill kit materials, (2) putting secondary containment under lighting structure (temporarily until fixed), and (3) replacing the lighting structure or having it serviced. On January 29th, the PG&E Environmental Inspector observed that kitty litter had been placed over the leak.
5. The CPUC EM noted that the track-out mentioned above had been cleaned up by the afternoon of January 28th; however, there were two generators observed with no secondary containment in the Switchyard. The CPUC EM also noted the lighting structure leak. The PG&E Project Site Inspector requested the contractors take care of these issues. Besides those compliance issues, the CPUC EM noted that the site was neat and clean, and that SWPPP measures were in place. All observed work activities were in compliance with the mitigation measures (MMs), Applicant Proposed Measures (APMs), and other permit requirements.
6. On January 20, 2016, PG&E submitted the *Vibration Observation Report for Historic Potrero Substation, Potrero Segment, Embarcadero-Potrero 230 kV Transmission Line Project* by Citta Structural Engineering dated December 10, 2015. As required by APM CUL-6, the report presents the results of visual observations, vibration monitoring, and survey monitoring from July to December 2015 for the existing historical Potrero Substation located at 23rd and Illinois Streets, San Francisco. The report was reviewed by CPUC's expert and found to satisfy the requirement for Observation No. 2 under APM CUL-6, and a memorandum dated January 25, 2016 was sent to PG&E.

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 2/04/16)

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 2/04/16)

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 – Crews welding and conducting electrical work in the GIS building. View east, January 28, 2016.



Figure 2 – Crews excavating a trench for GIS building power cable. View north,

January 28, 2016.



Figure 3 – Crews excavating a trench for GIS building power cable. View south, January 28, 2016.



Figure 4 – APEC installing rebar at the transformer pad. View south, January 28, 2016.