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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: April 8, 2015
Subject: Monitoring Report #29 – March 30, 2015 to April 5, 2015

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 April 1st.

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. Overaa conducted housekeeping and dust control activities Monday through Friday.
2. Overaa cut rebar from concrete piles on Monday and Wednesday.
3. Proven excavated small test holes to obtain ground water depth on Monday.
4. Proven conducted grading of excavation slope on Monday and excavated and removed buried pipe on Tuesday.
5. Proven excavated to expose concrete piles on Tuesday and Wednesday, and installed orange safety fence around the piles on Wednesday.
6. PSC operated the water filtration and disposal system on Tuesday.
7. Proven and PSC installed dewatering wells on Friday.
8. Street sweeping occurred Monday through Friday.
9. At the time of the CPUC EM site visit on Wednesday, April 1st, the concrete piles were excavated around to expose them (see Figure 1).
10. No construction activities occurred Saturday or Sunday.

Environmental Compliance:

1. Air quality monitoring was conducted by ERM Monday through Friday.
2. Cultural monitoring was conducted Monday through Friday. On March 30th and April 3rd, cultural constituents were observed, documented, and some collected.



3. PG&E's Environmental Inspector conducted monitoring of this area Monday through Friday, including SWPPP inspections.
4. Nesting bird surveys were conducted on Monday and nesting bird sweeps were conducted Tuesday through Friday.
5. PG&E's Environmental Inspectors noted one compliance issues at this location. On March 30th, in the morning, a power steering fluid hose of a 'Brown' water truck (Underground Construction Co. subcontractor) broke while it was approaching the Switchyard on Humboldt Street. The vehicle was delivering water from the work at Duct Bank North to the filtration and disposal system in the yard. Approximately 3 gallons of fluid spilled onto the pavement over a length of 75-100 feet on Humboldt Street; no fluid was leaked into the yard. Oil absorbent powder was used to clean up the spill by hand. The site was also cleaned with a street sweeper.
6. 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.

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. Underground Construction Co. conducted duct bank trench excavation Monday through Friday.
2. Underground Construction Co. installed pipe lagging in the duct bank trench Tuesday through Friday.
3. Underground Construction Co. dewatered the duct bank trench Tuesday through Friday.
4. Underground Construction installed rock in the duct bank trench on Tuesday, and installed rebar in the duct bank trench on Tuesday through Friday.

5. Underground Construction Co. and J. Flores excavated and installed new pipe for the sewer reroute Monday and Tuesday, and set the manhole cone and backfilled the excavation on Wednesday.
6. Street sweeping occurred Monday through Saturday.
7. At the time of the CPUC EM site visit during the day on Wednesday, April 1st, crews were installing rebar in the duct bank on Folsom Street between Main Street and Spear Street (see Figure 2), and another crew was installing the manhole cone for the sewer reroute at the intersection of Folsom Street and Beale Street. At the time of the CPUC EM site visit during the night on Wednesday, April 1st, crews were excavating the duct bank at the intersection of Folsom Street and Fremont Street in the Caltrans right-of-way (see Figure 3).
8. No construction activities occurred on Sunday.

Spear Street

1. PSC dewatered the vault excavation Monday through Wednesday.
2. Underground Construction Co. conducted housekeeping activities at the vault work area Tuesday and Wednesday.
3. Underground Construction Co., Sheedy, and Old Castle installed the vault sides and top slab in the vault excavation Wednesday night and early Thursday morning.
4. Underground Construction Co. removed shoring at the vault excavation on Friday and backfilled the vault excavation on Friday and Saturday.
5. Underground Construction Co. installed grade rings at the vault excavation on Saturday.
6. Underground Construction Co. potholed for utilities for the duct bank Monday and Tuesday.
7. Underground Construction Co. dewatered the HDPE transition excavation on Monday and Tuesday.
8. Underground Construction Co. excavated at the HDPE transition on Monday and Tuesday.
9. Underground Construction Co. sanded pipe at the HDPE transition on Tuesday.
10. Underground Construction Co. wrapped pipe with plastic in the HDPE transition excavation on Tuesday.
11. Underground Construction Co. moved temporary fencing at the HDPE transition on Wednesday.
12. Street sweeping occurred Monday through Saturday.
13. At the time of the CPUC EM site visit on Wednesday, April 1st, no crews were observed working in the early part of the day; however, most of the work was conducted starting around 6:30 p.m. and going into the early morning of April 2nd for the setting of the walls and ceiling of the vault (see Figures 4 and 5). The CPUC EM observed the first wall being set at the vault and left the site a little after 10 p.m.
14. No construction activities occurred on Sunday.

Environmental Compliance:

1. Cultural monitoring was conducted Monday through Friday. On March 31st, at Duct Bank North, cultural constituents were observed, documented, and some collected. On March 31st and April 3rd and 4th, at Duct Bank South, cultural constituents were observed, documented, and collected.
2. PG&E's Environmental Inspector conducted monitoring of the work area and activities Monday through Saturday, including SWPPP inspections.
3. Nesting bird sweeps were conducted Monday through Saturday.

4. PG&E's Environmental Inspectors noted no compliance issues at this location.
5. 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.

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

1. Underground Construction Co. poured concrete at the vault excavation on Monday.
2. Underground Construction Co. dewatered the vault excavation Tuesday through Thursday.
3. Underground Construction Co. welded crossbeams at the vault excavation Tuesday through Thursday.
4. Underground Construction Co. conducted hydrotesting of the new 8-inch pipe for the waterline relocation Monday and Wednesday.
5. Underground Construction Co. potholed for utilities for the water line relocation Monday through Saturday, and installed new pipe on Saturday.
6. Underground Construction Co. saw-cut pavement for the water line relocation on Saturday.
7. Underground dewatered the underground water circulation feature associated with Station A on Tuesday and Wednesday, and backfilled with sand on Wednesday.
8. Street sweeping occurred Monday through Saturday.
9. Fencing was installed around the open trench at the end of each day.
10. At the time of the CPUC EM site visit on Wednesday, April 1st, crews were welding shoring inside the vault, pouring sand into the underground water circulation feature associated with Station A (see Figure 6), and potholing for the waterline relocation.
11. No construction activities occurred on Sunday.

Environmental Compliance:

1. Cultural monitoring was conducted Monday through Saturday.
2. Air quality monitoring was conducted by ERM Monday through Saturday.
3. PG&E's Environmental Inspector conducted monitoring of the work area and activities on Monday through Saturday, including SWPPP inspections.
4. Nesting bird sweeps were conducted Monday through Saturday.
5. PG&E's Environmental Inspectors noted no compliance issues at this location.
6. 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.

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. No construction activity related to NTP #4 occurred during the subject week. Manson crews completed rock and debris removal during Week #14, except for several debris items that were too near the north end exit pits and the HDD work. These few items will be removed when the submarine cable installation begins June 1, 2015.

Environmental Compliance:

- 1. No compliance monitoring was conducted during the subject week.

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. Office trailer use occurred Monday through Saturday at the yard.
- 2. Tailboard meetings occurred at the yard Monday through Saturday.
- 3. Underground Construction Co. conducted housekeeping activities on Wednesday and Thursday.
- 4. At the time of the CPUC EM site visit on Wednesday, April 1st, equipment and materials were in use and being stored at the site. Office trailers were in use at the site as well.
- 5. No work occurred at the yard on Sunday.

Environmental Compliance:

- 1. PG&E’s Environmental Inspector conducted monitoring of the work area and activities Monday through Saturday, including SWPPP inspections.
- 2. Nesting bird surveys were conducted on Monday and nesting bird sweeps were conducted Wednesday through Saturday.
- 3. PG&E’s Environmental Inspectors noted no compliance issues at this location.
- 4. The CPUC EM noted that the housekeeping and SWPPP issues from the previous week were taken care of and 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.

Notices to Proceed

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

Table 1
Notice to Proceeds (NTPs)
 (Updated 04/08/15)

| 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 # | Date Requested | Date Issued | Phase | Description |
|--------------|-----------------------|--------------------|----------------------------------|---|
| 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 | 03/27/15 | Potrero GIS Switchgear Building | Construction of 230 kV Potrero gas-insulated switchgear (GIS) building and cable tie-in component at Potrero Switchyard. |
| NTP #6 | 2/19/15 | 04/07/15 | Submarine Cable | Site preparation for submarine cable installation, laying the cable, and pulling the cable to land at either end. |

Minor Project Changes

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

Table 2
Minor Project Changes (MPCs)
(Updated 04/08/15)

| 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 | 01/05/15 | 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 – Excavating at Potrero Switchyard, view southeast, April 1, 2015.



Figure 2 – Underground duct bank work on Folsom Street. View south, April 1, 2015.



Figure 3 – Night work on underground duct bank at Folsom Street and Fremont Street. View northwest, April 1, 2015.



Figure 4 – Setting wall in vault with large crane on Spear Street. View east, April 1, 2015.

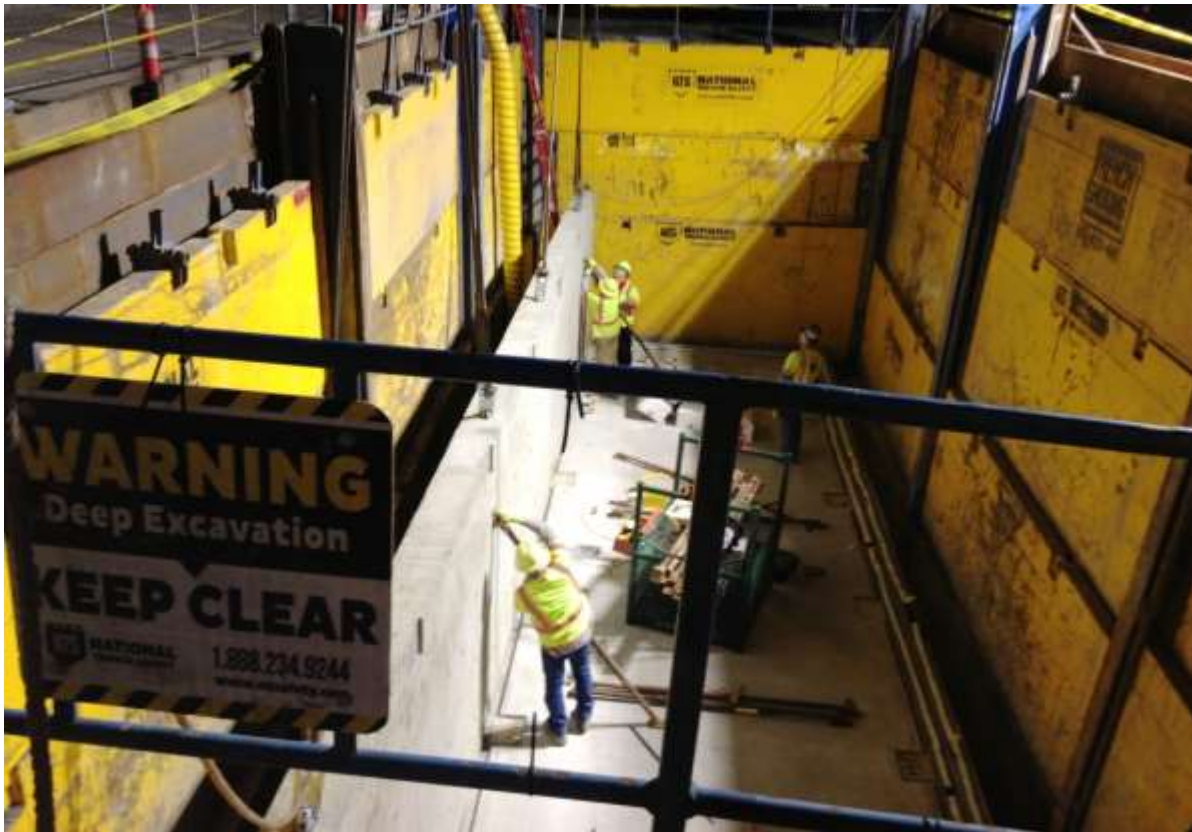


Figure 5 – Installing wall in vault on Spear Street. View east, April 1, 2015.



Figure 6 – Filling underground water circulation feature with sand on 23rd Street. View southwest, April 1, 2015.