



5020 Chesebro Road, Suite 200, Agoura Hills, CA 91301-2285
Tel. 818-597-3407, Fax 818-597-8001, www.aspeneg.com

PROJECT MEMORANDUM

PG&E EMBARCADERO-POTRERO 230 kV TRANSMISSION PROJECT

To: Billie Blanchard, Project Manager, CPUC
From: Vida Strong, Aspen Project Manager
Date: July 27, 2015
Subject: Monitoring Report #44 – July 13 to July 19, 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 July 16th.

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, Duct Bank (day work)

1. Underground Construction Co. excavated the duct bank trench and installed shoring Monday through Saturday.
2. Underground Construction Co. saw cut pavement on Monday.
3. Underground Construction Co. potholed for utilities on Monday and Tuesday.
4. Underground Construction Co. jackhammered pavement on Tuesday.
5. Underground Construction Co. conducted paving activities on Tuesday.
6. Underground Construction Co. dewatered the trench Tuesday through Thursday.
7. Underground Construction Co. installed a pedestrian ramp at the crosswalk on Tuesday.
8. Underground Construction Co. removed pavement on Friday.
9. Clean Harbors hauled off excavated materials Monday through Saturday.
10. At the time of the CPUC site visit on July 16th, crews were excavating the trench on Folsom Street between Fremont Street and Zeno Place (see Figure 1), and working on the duct bank trench on Folsom Street near Spear Street (see Figure 2).
11. Street sweeping occurred Monday through Saturday.
12. No construction activities occurred on Sunday.

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

1. Underground Construction Co. dewatered the duct bank trench Monday through Saturday.
2. Underground Construction Co. excavated the duct bank trench Monday, Wednesday, and Friday.
3. Underground Construction Co. installed shoring on Monday, and Wednesday through Saturday.
4. Underground Construction Co. installed rebar Monday and Tuesday.
5. Underground Construction Co. installed conduit pipe in the duct bank trench Monday through Wednesday.
6. Underground Construction Co. poured cement slurry on Wednesday, Thursday and Saturday.
7. Underground Construction Co. removed shoring Thursday through Saturday.
8. Underground Construction Co. potholed for utilities on Thursday.
9. Clean Harbors hauled off excavated materials Monday through Saturday.
10. Street sweeping occurred Monday through Saturday.

11. At the time of the CPUC EM site visit on July 16th, crews were pouring slurry in the duct bank trench, removing shoring on the west side of the vault, and paving on the east side of the vault (see Figures 3 and 4).
12. No construction activities occurred on Sunday.

Spear Street, Vault

1. Underground Construction Co. conducted housekeeping activities Monday and Thursday.
2. New River Electric installed messenger line and winch line into the North Bore 1 conduit at the pull vault on Tuesday.
3. New River Electric conducted work on the link seal in the transition vault on Tuesday and Wednesday.
4. New River Electric pulled the Phase B cable in the North Bore 1 conduit on Wednesday.
5. New River Electric pulled the F fiber optic cable in the North Bore 1 conduit on Wednesday.
6. New River Electric cut the Phase B conduit in the transition vault on Wednesday.
7. New River Electric conducted work on the F2 fiber optic cable in the fiber box on Wednesday.

Environmental Compliance:

1. Cultural monitoring was conducted by Far Western Monday through Saturday.
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):

23rd Street, Duct Bank

1. Underground Construction Co. conducted backfilling with sand on Friday.
2. At the time of the CPUC EM site visit on July 16th, no work activities for the duct bank were taking place on 23rd Street.
3. No construction activities occurred on Monday through Wednesday.

23rd Street, Vault

1. New River Electric cut the South Bore 1 Phase C cable in the transmission vault on Wednesday.
2. New River Electric cut excess South Bore 2 Phase A cable into pieces on Wednesday.
3. New River Electric removed the Phase C cable piece from the South Bore 1 conduit between the pull box and transition box on Wednesday.
4. New River Electric stripped the F1 fiber cable in the fiber box on Wednesday.
5. New River Electric conducted wiring in the fiber box on Wednesday.
6. New River Electric removed previously cut pieces of excess cable for recycling on Thursday.

7. New River Electric set up equipment at the fiber optic box on Thursday and Saturday.
8. New River Electric pulled fiber optic cable in the F2 conduit on Sunday.
9. New River Electric installed Phase B and F2 cables in South Bore 3 on Sunday.

23rd Street, Water Line Relocation

1. Underground Construction Co. removed plates for the San Francisco Water District work on Thursday and Friday.
2. No construction activities occurred Monday through Wednesday.

Environmental Compliance:

1. PG&E's Environmental Inspector conducted monitoring of the work area and activities on Monday through Saturday, including SWPPP inspections.
2. Nesting bird sweeps were conducted Monday through Saturday.
3. PG&E's Environmental Inspectors noted no compliance issues at this location.
4. 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. All work activities related to NTP #4 have been completed.

Environmental Compliance:

1. No compliance monitoring was conducted.

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:

1. Overaa and CMC Rebar laid out rebar on rat slab Monday through Wednesday.
2. Overaa installed brace edge forms Monday through Saturday.
3. Overaa repaired the sump pit on Tuesday.
4. Overaa repaired water proofing on Wednesday.
5. CMC installed rebar on rat slab Tuesday through Saturday.
6. MEI laid out and crimped grounding wire Thursday through Saturday.

7. Overaa installed sump forms on Saturday.
8. Overaa conducted housekeeping and dust control activities throughout the week.
9. Office trailer use occurred Monday through Saturday.
10. At the time of the CPUC EM site visit on July 16th, crews were conducting carpentry, rebar, and grounding work (see Figure 5).
11. No construction activities occurred on Sunday.

Environmental Compliance:

1. Air quality monitoring was conducted by ERM Monday through Saturday.
2. PG&E's Environmental Inspector conducted monitoring of this area 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. No compliance monitoring was conducted during the subject week.

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. Durocher installed pull eye on the Phase B cable end on Tuesday.
2. Durocher floated the power cable Phase B off-shore near the North Bore 1 receiving pit on Tuesday.
3. Durocher conducted diving operations at the North Bore 1 receiving pit on Tuesday.
4. Durocher installed messenger line and winch line into the North Bore 1 conduit on Tuesday.
5. Durocher installed Phase B cable in the North Bore 1 conduit on Wednesday.
6. Durocher installed F2 fiber optic cable in the North Bore 1 conduit on Wednesday.
7. Durocher hydro-plowed Phase B and F2 fiber optic cables in Bay mud on Wednesday, Thursday, and Friday.
8. Durocher floated F2 fiber optic cable offshore near the south receiving pits on Saturday.
9. Durocher installed Phase B and F2 cables into South Bore 3 on Sunday.
10. Durocher off-loaded and delivered cable container A and B to Pier 96 on Sunday.
11. Durocher adjusted the location of the diver jet pump on Sunday.
12. At the time of the CPUC site visit on July 16th, hydro-plowing of Phase B and F2 fiber optic cables in the Bay was being conducted.
13. No work activities occurred on Monday.

Environmental Compliance:

- 1. PG&E’s Environmental Inspectors noted no compliance issues at this location.

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. Equipment and materials were stored at the yard throughout the week.
- 4. At the time of the CPUC EM site visit on July 16th, the yard was in use.
- 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 sweeps were conducted Monday through Saturday.
- 3. PG&E’s Environmental Inspectors noted no compliance issues at this location.
- 4. 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. No compliance monitoring was conducted during the subject week.

Notices to Proceed

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

Table 1
Notice to Proceeds (NTPs)
 (Updated 07/27/15)

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 #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 #	Date Requested	Date Issued	Phase	Description
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 230kV/115kV 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 07/27/15)

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	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 – Duct Bank North work on Folsom Street between Fremont Street and Zeno Place. View northwest, July 16, 2015.



Figure 2 – Duct bank work on Folsom Street near Spear Street. View north, July 16, 2015.



Figure 3 – Crews pouring slurry and removing shoring on Spear Street on west side of vault. View northwest, July 16, 2015.



Figure 4 – Paving on Spear Street on east side of vault. View northeast, July 16, 2015.



Figure 5 – Potrero Switchyard carpentry, rebar, and grounding work. View northeast, July 16, 2015