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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 3, 2015  
**Subject:** Monitoring Report #45 – July 20 to July 26, 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 21<sup>st</sup>.

## **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 23<sup>rd</sup> Street adjacent to the existing Potrero Substation on the corner of 23<sup>rd</sup> 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 23<sup>rd</sup> 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 (23<sup>rd</sup> 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 23<sup>rd</sup> 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. dewatered trench Monday, Wednesday, Friday, and Saturday.
3. Underground Construction Co. installed supports for existing utility encasements on Tuesday.
4. Underground Construction Co. added base rock to the trench bottom on Wednesday.
5. Underground Construction Co. removed pavement on Saturday.
6. Underground Construction Co. installed rebar on Saturday.
7. Underground Construction Co. removed wooden piling on Saturday.
8. Clean Harbors hauled off excavated materials Monday through Saturday.
9. At the time of the CPUC site visit on July 21<sup>st</sup>, crews were installing supports for existing utility encasements in the trench on Folsom Street between Fremont Street and Zeno Place (see Figure 1), and in the duct bank trench on Folsom Street near Spear Street (see Figure 2).
10. Street sweeping occurred Monday through Saturday.
11. No construction activities occurred on Sunday.

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

1. Underground Construction Co. potholed for utilities on Monday.
2. Underground Construction Co. dewatered, excavated, and installed shoring in the duct bank trench Monday and Tuesday.
3. Clean Harbors hauled off excavated materials Monday and Tuesday.
4. Street sweeping occurred Monday through Saturday.
5. At the time of the CPUC EM site visit on July 21<sup>st</sup>, crews were excavating the duct bank trench (see Figures 3).
6. No construction activities occurred Wednesday through Sunday.

#### **Spear Street, Vault**

1. New River Electric cut the Phase B cable in the transition vault, and removed and cut up the excess Phase B cable between the pull and transition vault on Tuesday.
2. Underground Construction Co. conducted housekeeping activities on Tuesday.
3. New River Electric removed cut pieces of excess Phase B cable from the site for recycling 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 (23<sup>rd</sup> Street):**

**23<sup>rd</sup> Street, Duct Bank**

1. Underground Construction Co. conducted paving of duct bank excavations on Tuesday.
2. Underground Construction Co. excavated duct bank trench Wednesday through Friday.
3. Underground Construction Co. installed shoring, rebar, and conduit in the duct bank trench Thursday and Friday.
4. Underground Construction Co. saw cut pavement on Friday.
5. Clean Harbors hauled off excavated materials Wednesday through Friday.
6. Street sweeping was conducted Wednesday through Friday.
7. At the time of the CPUC EM site visit on July 21<sup>st</sup>, crews were paving excavations on 23<sup>rd</sup> Street.
8. No construction activities occurred on Saturday or Sunday.

**23<sup>rd</sup> Street, Vault**

1. New River Electric cut the Phase B cable in the transmission vault and removed the excess Phase B cable between the pull and transition vaults on Monday.
2. New River Electric conducted electrical work on the fiber optic cable in the fiber optic box on Monday.
3. New River Electric cut into pieces the excess Phase B cable and placed in bins for recycling on Tuesday.
4. New River Electric delivered cut pieces of excess Phase B cable from Duct Bank North vaults for recycling on Wednesday.
5. New River Electric conducted housekeeping activities on Wednesday.

**23<sup>rd</sup> Street, Water Line Relocation**

1. Underground Construction Co. raised valve lids on Monday.
2. Underground Construction Co. conducted backfilling with concrete on Monday.
3. No construction activities occurred Tuesday through Sunday.

**Environmental Compliance:**

1. Cultural monitoring was conducted by Far Western Wednesday through Friday.
2. Air quality monitoring was conducted by ERM Wednesday through Friday.

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. 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. CMC Rebar installed rebar on rat slab on Monday.
2. CMC Rebar off-loaded delivered rebar on Tuesday.
3. MEI laid out grounding wire on Monday and crimped grounding wire Monday through Wednesday.
4. Overaa installed brace edge forms Monday through Friday.
5. Overaa assembled embeds on Monday and Tuesday and laid them out Thursday and Friday.
6. Overaa installed ground cable Tuesday through Saturday.
7. MEI cut ground tails on Wednesday.
8. MEI crimped eye bolts on Wednesday.
9. Overaa repaired the sump pits Thursday through Saturday.
10. Overaa laid out plywood walkways on rebar on Thursday and Friday.
11. MEI conducted work on rebar connectors Thursday through Saturday.
12. MEI cut ground stubs Thursday through Saturday.
13. Overaa installed tie wire on Saturday.
14. Overaa conducted housekeeping and dust control Monday through Saturday.

15. Office trailer use occurred Monday through Saturday.
16. At the time of the CPUC EM site visit on July 21<sup>st</sup>, crews were conducting grounding work (see Figure 4).
17. 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 demobilized equipment and materials from the cable laying vessel (CLV) at Pier 50 on Monday.
2. Durocher demobilized equipment and materials from the CLV at the Manson Yard Tuesday through Friday.
3. Durocher diver installed south link seals in South Bores 1 – 3 receiving pits on Tuesday.
4. Durocher diver conducted hand jetting at the south receiving pits Wednesday through Saturday.
5. At the time of the CPUC site visit on July 21<sup>st</sup>, divers were installing link seals in South Bores 1 – 3 receiving pits (see Figure 5).
6. No work activities occurred on Sunday.

**Environmental Compliance:**

1. PG&E's Environmental Inspector inspected the fish screens on the hydroplow intake pumps #1 and #2 at the Manson Yard on Wednesday.
2. 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 21<sup>st</sup>, the yard was in use and had been recently watered for dust control.
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 08/03/15)

<b>NTP #</b>	<b>Date Requested</b>	<b>Date Issued</b>	<b>Phase</b>	<b>Description</b>
NTP #1	6/23/14	8/21/14	Potrero Site Preparation	Site preparation and excavation of the 230 kV Potrero Switchyard site on 23 <sup>rd</sup> St., SF.
NTP #2	7/31/14	8/28/14	HDD	Horizontal directional drilling on Spear St. and 23 <sup>rd</sup> 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 <sup>rd</sup> 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 08/03/15)

<b>MPC #</b>	<b>Date Requested</b>	<b>Date Issued</b>	<b>Phase</b>	<b>Description</b>
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 southwest, July 21, 2015.



Figure 2 – Duct bank work on Folsom Street near Spear Street. View northwest, July 21, 2015.





Figure 3 – Excavating duct bank trench on Spear Street on west. View north, July 21, 2015.



Figure 4 – Potrero Switchyard grounding work. View east, July 21, 2015.



Figure 5 – Durocher at south end of project. View east, July 21, 2015