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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 4, 2015  
**Subject:** Monitoring Report #46 – July 27 to August 2, 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 29<sup>th</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 Friday.
2. Underground Construction Co. dewatered the trench Monday, Tuesday, and Thursday.
3. Underground Construction Co. installed rebar on Monday and Tuesday.
4. Underground Construction Co. installed conduit on Tuesday.
5. Underground Construction Co. removed pavement on Tuesday.
6. Underground Construction Co. backfilled the trench with concrete slurry on Tuesday.
7. Underground Construction Co. installed supports for existing utilities in the trench on Wednesday and Thursday.
8. Clean Harbors hauled off excavated materials Monday through Friday.
9. At the time of the CPUC site visit on July 29<sup>th</sup>, crews were installing supports for existing utility encasements in the trench on Folsom Street between Fremont Street and Zeno Place (see Figure 1).
10. Street sweeping occurred Monday through Friday.
11. No construction activities occurred on Saturday or Sunday.

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

1. Underground Construction Co. dewatered the trench on Monday and Wednesday through Friday.
2. Underground Construction Co. installed rebar in the duct bank trench on Monday.
3. Underground Construction Co. excavated the duct bank trench Monday through Friday.
4. Underground Construction Co. installed shoring in the trench Wednesday through Friday.
5. Underground Construction Co. added base rock in the trench on Friday.
6. Underground Construction Co. backfilled the trench with concrete slurry on Friday.
7. Clean Harbors hauled off excavated materials Monday through Friday.
8. Street sweeping occurred Monday through Friday.
9. At the time of the CPUC EM site visit on July 29<sup>th</sup>, crews were carefully excavating the duct bank trench around a cultural feature and installing shoring in the trench (see Figure 2).
10. No construction activities occurred on Saturday or Sunday.

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

1. No work was conducted at the vault throughout the week.

**Environmental Compliance:**

1. Cultural monitoring was conducted by Far Western Monday through Friday. July 27<sup>th</sup> through 31<sup>st</sup>, cultural constituents were observed, documented, and some collected.
2. PG&E's Environmental Inspector conducted monitoring of the work area and activities on Monday through Friday, including SWPPP inspections.
3. Nesting bird sweeps were conducted Monday through Friday.
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. excavated the duct bank trench Monday through Friday.
2. Underground Construction Co. installed shoring on Monday.
3. Underground Construction Co. dewatered the Station A enclosure Tuesday and Wednesday.
4. Underground Construction Co. removed concrete and rebar to allow access to the Station A enclosure on Thursday and Friday.
5. Underground Construction Co. poured concrete slurry on Wednesday and Friday.
6. Underground Construction Co. removed shoring on Friday.
7. Clean Harbors hauled off excavated materials Monday through Friday.
8. Street sweeping was conducted Monday through Friday.
9. At the time of the CPUC EM site visit on July 29<sup>th</sup>, crews were excavating the duct bank trench around the Station A feature (see Figure 3) and pouring concrete slurry in the duct bank trench on 23<sup>rd</sup> Street.
10. No construction activities occurred on Saturday or Sunday.

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

1. No work was conducted at the vault during the week.

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

1. The water line relocation work has been completed.

**Environmental Compliance:**

6. Cultural monitoring was conducted by Far Western Monday through Friday. July 27<sup>th</sup> through 31<sup>st</sup>, cultural constituents were observed, documented, and some collected.
7. Air quality monitoring was conducted by ERM Monday through Friday.
8. PG&E's Environmental Inspector conducted monitoring of the work area and activities on Monday through Friday, including SWPPP inspections.
9. Nesting bird sweeps were conducted Monday through Friday.

10. PG&E's Environmental Inspectors noted no compliance issues at this location.
11. 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 Monday and Saturday.
2. CMC Rebar laid out rebar on Tuesday, Wednesday and Saturday.
3. CMC Rebar repaired the sump pits on Tuesday.
4. MEI tied down grounds on Monday through Wednesday.
5. MEI laid out PVC pipes on Tuesday and Wednesday.
6. Overaa laid out rebar on Monday and Thursday.
7. Overaa assembled the mat slab on Monday.
8. Overaa installed PVC conduit on Monday.
9. Overaa set the sump form on Tuesday and Wednesday.
10. Overaa prepared the embed support system on Tuesday and Wednesday.
11. Overaa constructed embeds Thursday through Saturday.
12. Overaa laid out embeds on Friday and Saturday.
13. Overaa constructed wooden stair forms for trailer stairs 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 29<sup>th</sup>, crews were conducting rebar and 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.

**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. A Durocher diver conducted hand jetting at the south receiving pits on Monday.
2. A Durocher diver conducted hand jetting at the north receiving pits on Tuesday and Wednesday.
3. A Durocher diver installed the north link seals in the North Bores 1 – 3 receiving pits on Tuesday and Wednesday.
4. Durocher delivered empty cable spools to Pier 96 on Tuesday.
5. Durocher installed concrete mats Thursday through Saturday.
6. At the time of the CPUC site visit on July 29<sup>th</sup>, divers were installing link seals in the North Bores 1 – 3 receiving pits (see Figure 5).
7. No work activities occurred on Sunday.

**Environmental Compliance:**

1. PG&E's Environmental Inspectors noted no compliance issues regarding this work.

**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 Friday at the yard.
2. Tailboard meetings occurred at the yard Monday through Friday.
3. Equipment and materials were stored at the yard throughout the week.
4. No work occurred at the yard on Saturday or Sunday.

**Environmental Compliance:**

1. PG&E’s Environmental Inspector conducted monitoring of the work area and activities Monday through Friday, including SWPPP inspections.
2. Nesting bird sweeps were conducted Monday through Friday.
3. PG&E’s Environmental Inspectors noted no compliance issues 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 08/05/15)

<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 08/05/15)

<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 northwest, July 29, 2015.



Figure 2 – Installing shoring in trench on Spear Street. View northeast, July 29, 2015.



Figure 3 – Excavating duct bank trench around the Station A feature on 23<sup>rd</sup> Street. View west, July 29, 2015.



Figure 4 – Potrero Switchyard rebar and grounding work. View northeast, July 29, 2015.





Figure 5 – Durocher at Pier 30/32 conducting diving work. View northeast, July 29, 2015