Daily Diary Report by Bid Item

Contract No.: 04-0120F4
Diary #: 1236 **Const Calendar Day:** 809 **Date:** 22-Aug-2014 **Friday**
Inspector Name: Brignano, Bob **Title:** Transportation Engineer
Inspection Type:
Shift Hours: **Break:** **Over Time:**
Federal ID:
Location:
Reviewer: Schmitt, Alex **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** **12 PM** **4PM**
Precipitation **Condition** overcast early am, then clear, then late pm p.c.

Working Day ☑ If no, explain:

Diary: Dispute ☐

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:

The status of the 2 test rigs in this current phase of the Townsend Test (Test IV) is as follows:
Rod 18 (Dry 2008 Rod, ID S1-A7, Bottom): Tensioned to 0.50 Fu Today
Rod 19 (Dry 2008 Rod, ID S2-H6, Bottom): Tensioned to 0.50 Fu Today

ABF Engineer Kelvin Chen is working part time in the field and office on CCO 314.

There is work in the field for the scheduled jacking step at TR's 18 & 19. Crews at the Pier 7 warehouse are working an 8-hour shift 0600 through 1430. Working on the CCO operation today are Ironworker Jared Garrett (~0920~0945 for ~1/2 hr) and Ironworker Foreman Obra Paulk (~0920~0945 for ~1/2 hr). Ironworker Foreman Jim Benninghove is also present (~0920~0945 for ~1/2 hr) at the CCO 314 operation at the test rigs, but he is working today on CCO 376 operations; while he is present at the test rigs briefly, he is not an active participant in this operation and is not charged to this CCO. The non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day are not covered by this diary.

VGO is on site today for the jacking step at TR's 18 & 19. From VGO, Dave Van Dyke starts work on site at ~0730. He works on the morning data reports before this morning's scheduled tensioning step. VGO is present for live data display during the jacking step at the test rigs. Then, VGO works on the data reports from the jacking step at the test rigs. VGO leaves the site ~1030. VGO continues offsite work on data and report issues. At the end of the day, VGO produces and sends the pm data reports.

For the jacking step at the 2 test rigs, present from the DJV is Luis Funes. Present from CT-METS for AE is Elijah Turner (communicate with Mistras personnel offsite). Two ABF ironworkers are present (also a third ironworker in area) to operate the hydraulic pump, tighten the nut, and deal with any issues that may come up during the jacking operation, with VGO present to monitor the loads being used to guide the operations.

Test Rig #18 (Dry 2008 Rod, ID S1-A7, Bottom) Jacking Step:
This is the 3rd jacking step and the rod is being jacked to 0.50 Fu. The post-seating of the nut target is 417.900 +10/-0 kips. The expected hydraulic pressure at this locked off force is 3,000 psi. Based on the previous jacking step (8/20/2014 - 0.40 Fu), the expected seating loss is at least 28 kips (plus some expected bleed loss during AE check), so the initial jacking target is ~450~460 kips. The tension on the rod at the start of the operation is 336 kips (the 0.40 Fu load left on the rod 2 days ago was 339 kips for a delta of -3 kips, with this tension difference possibly due to thermal differences between 8/20/2014 and today). Jacking is started at 0927. At 3,000 psi hydraulic pressure per the dial gauge, the primary strain

gauges give a force of 392 kips. The hydraulic pressure is increased to 3,400 psi and the primary strain gauges give a force of 444 kips. The hydraulic pressure is increased to 3,500 psi and the primary strain gauges give a force of 455 kips. The AE is checked with the ok given at 0930. The nut is tightened. Prior to bleeding off the jacks, the primary strain gauges give a force of 453 kips (bleed loss = 2 kips). After bleeding off the jacks, the primary strain gauges give a force of 421 kips (seating loss = 32 kips). The force is within the specified tolerance.

Test Rig #19 (Dry 2008 Rod, ID S2-H6, Bottom) Jacking Step:
This is the 3rd jacking step and the rod is being jacked to 0.50 Fu. The post-seating of the nut target is 417.900 +10/-0 kips. The expected hydraulic pressure at this locked off force is 3,000 psi. Based on the previous jacking step (8/20/2014 - 0.40 Fu), the expected seating loss is at least 30 kips (plus some expected bleed loss during AE check), so the initial jacking target is ~450~460 kips. The tension on the rod at the start of the operation is 332 kips (the 0.40 Fu load left on the rod 2 days ago was 336 kips for a delta of -4 kips, with this tension difference possibly due to thermal differences between 8/20/2014 and today). Jacking is started at 0934. At 3,000 psi hydraulic pressure per the dial gauge, the primary strain gauges give a force of 393 kips. The hydraulic pressure is increased to 3,500 psi and the primary strain gauges give a force of 460 kips. The AE is checked with the ok given at 0939. The nut is tightened. Prior to bleeding off the jacks, the primary strain gauges give a force of 456 kips (bleed loss = 4 kips). After bleeding off the jacks, the primary strain gauges give a force of 422 kips (seating loss = 34 kips). The force is within the specified tolerance.

A 40kW generator – MQ Power 40 – ABF ID 002051 is used briefly for the jacking operations and is on idle/standby at the test rig work area the remainder of the day. A Hydraulic Pump for running the jacks is used briefly for the jacking operations and is on idle/standby at the test rig work area the remainder of the day. A Kubota Cart is used by the first 2 ironworkers to arrive at the test rig work area and the Hyster 80 forklift (ABF ID 002306) is used by the third ironworker as transport to get to the test rig work area.

Note that there is k-rail at this work area. All the remaining k-rail at the CCO 314 test rig site is State owned. There are 20 pieces of 10' bought k-rail. Of the 20 pieces, 16 are installed in test rigs and 4 are spare/extra k-rail that are set aside.

To elevate k-rail and sandbags, crane mats (built from 12x12's) and timber blocking (12x12's) are used. The crane mat and 12x12's quantities are as follows:
1 each 4'x20' crane mat (1 x 80 LF)
1 each 5'x19' crane mat (1 x 95 LF)
2 each 5'x20' crane mats (2 x 100 LF)
2 each 5'x16' crane mat (2 x 80 LF)
~64 LF additional 12x12's
Total 12x12's quantity = 599 LF ~ 600 LF

The agreed extra work with ABF is as follows:
Ironworker Jared Garrett - 0.5 hr
Ironworker Foreman Obra Paulk - 0.5 hr
Engineer Kelvin Chen - 0.5 hrs
40 kW Generator - 0.5 hr
12x12 timber - 600 LF
See the attached Extra Work Order - Signed with ABF for CCO 314 work