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# PROJECT MEMORANDUM KIRBY HILLS NATURAL GAS STORAGE FACILITY PROJECT, PHASE 2

**To:** Junaid Rahman, CPUC

From: Vida Strong, Aspen Project Manager

**Date:** February 24, 2009

**Subject:** Report #22: December 14, 2008 – February 18, 2009

### **CPUC ENVIRONMENTAL MONITOR (EM):** Jody Fessler

CPUC EM Jody Fessler was on site Wednesday, February 18th.

#### **WELL SITES:**

#### **Summary of Activity:**

## December 2008

## **Well Site 21 (WS-21)**

Excavation for conduit installation was conducted and electrical crews installed underground conduit and miscellaneous above grade conduit.

#### **Well Site 22 (WS-22)**

Excavation for conduit installation was conducted and electrical crews installed underground conduit and miscellaneous above grade conduit.

#### **Well Site 23 (WS-23)**

Crews set rebar for pipe supports, completed installation of rebar and poured concrete for pipe support footings, and began framework for pipe support piers.

## January 2009

## **Well Site 21 (WS-21)**

Crews cleaned conduit trenches and prepared them for backfill. Crews then backfilled the conduit in the trenches.

### **Well Site 22 (WS-22)**

Crews cleaned conduit trenches and prepared them for backfill. Crews then backfilled the conduit in the trenches. Crews also welded final segment of pipeline at west end of WS-22.

## **Well Site 23 (WS-23)**

Crews stripped pipe support pier forms, excavated for piping to wellheads, conducted pipe installation, and installed piping spools.

#### February 1 – 14, 2009

## **Well Site 21 (WS-21)**

Crews fabricated carbon steel piping spools for instrument air above grade.

### **Well Site 22 (WS-22)**

Crews installed HDPE piping for air system and fabricated carbon steel piping spools for instrument air above grade (see Figure 1).

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#### **Well Site 23 (WS-23)**

Crews installed above grade conduit and supports, completed installation of piping, performed hydrostatic testing, completed final installations and connections to wellheads, installed underground conduit, installed stainless steel instrument tubing, and fabricated carbon steel piping spools for instrument air above grade. Cut slope with jute matting is revegetating (see Figure 2).

#### **Observation Well Lambie 6 (Well L6)**

No construction activities occurred at Well L6 during the subject months.

### **Observation Well Lambie 7 (Well L7)**

No construction activities occurred at Well L7 during the subject months.

#### PIPELINE:

## **Summary of Activity:**

#### December 2008

No construction activities were conducted along the pipeline during the last half of the subject month.

## **January 2009**

Crews conducted installation of the final segment of pipeline at the west side of WS-22 and prepared for hydrostatic testing for the pipeline west of WS-22.

## February 1 – 14, 2009

Crews performed hydrostatic testing, along with WS-23 piping, and de-watered and connected pipeline to block valve on west end of WS-22.

#### **ACCESS ROADS:**

#### **Summary of Activity:**

A layer of rock was installed on the access road between the compressor station and Well Site 21 (WS-21) in late December. The access roads are being used by construction vehicles and equipment to access the construction sites.

#### STAGING AREAS:

#### **Summary of Activity:**

At the beginning of December, the disturbed temporary work area/staging area on the north side of the compressor station was seeded and is revegetating (see Figure 3).

#### **COMPRESSOR STATION SITE:**

## **Summary of Activity:**

### December 2008

Throughout the last half of December, crews stripped forms for miscellaneous equipment foundations; conducted pipe fabrication, installation and coating; modified the glycol contactor; installed HDPE piping near the glycol contactor; backfilled around equipment foundations; set discharge coalescer and glycol reclamation filter separator onto their foundations; installed surface rock in fabrication and work areas; excavated for grounding system; installed cable tray under the MCC building; installed conduit on small gas cooler structure.

### January 2009

Throughout the January, crews installed conduit on small gas cooler and large gas cooler, conducted excavation for grounding system, installed grounding system, fabricated and installed piping, constructed forms, backfilled trenches, fabricated pipe spool, excavated for foundations, constructed foundations, and set fuel gas conditioning skid.

## February 1 – 14, 2009

Electrical crews installed conduit on gas compressor skids, conducted grounding work, and installed power and control conduits. Other crews conducted foundation work constructing forms, installing rebar, pouring concrete, and stripping forms. Mechanical work included pipe fabrication, setting equipment on skids, installing piping, coating underground field joints, assembling fabricated spools, backfilling around tank area and fuel gas heater area, and installing cover rock in the northwest corner of the site (see Figure 4).

### **METERING SITE:**

#### **Summary of Activity:**

## January 2009

On January 21<sup>st</sup>, electrical crews removed existing conduit, instruments and wire and ran new conduit at metering area and ran wire back to PLC. On January 26<sup>th</sup>, crews moved valves and fittings to the metering site from the compressor station and installed piping and valves, preparing for hydrostatic testing. PG&E crews conducted pipe modifications as well as instrument and electrical work in their metering area.

## <u>February 1 – 14, 2009</u>

Mechanical work at the metering site included installing a 10-inch orbit valve, preparing and performing hydrostatic testing (successful and complete), re-assembling piping, applying underground coating to field welds, removing remainder of existing 12-inch pipe, and backfilling excavated areas. Electrical work at the metering site included wire terminations, installation of above-grade conduit, pulling wire and cable, and loop checks. All electrical work is complete for Phase 2 at the meter station. PG&E crews were on site finalizing electrical and instrumentation work.

#### **ENVIRONMENTAL COMPLIANCE:**

The CPUC EM observed that all work activities were in compliance with the approved Mitigated Negative Declaration and other permit requirements. The CPUC EM reviewed LGS' Environmental Inspector's (EI) reports and survey reports. Environmental training of crew personnel by LGS's EI was on-going as new crew personnel came onto the site. Sensitive environmental areas were staked, flagged, and/or fenced. The wetland area near WS-23 was fenced off and had silt fencing installed on the upslope side so potential erosion from WS-23 would not enter the wetland area. Erosion controls were in place and functioning at all work sites. The refueling tank and other small cans at the compressor station were surrounded with secondary containment. The sites were cleaned of trash on a daily basis.

## NOTICES TO PROCEED (NTP):

To date, six Notices to Proceed (NTPs) have been issued for the Kirby Hills Natural Gas Storage Facility Phase II Project (see Table 1). Additional NTPs are anticipated for the project.

# TABLE 1 Notice to Proceed Requests (Updated 2-24-09)

	Date	Date	
NTP#	Requested	Issued	Description
#1	4-11-08	4-21-08	Request authorization from the CPUC to commence with construction activities associated with three new wells (Well Sites 21, 22, and 23), a 2,700-foot-long pipeline (flow line), and access roads and staging areas for Phase II of the Kirby Hills Natural Gas Storage Facility Project.
#2	4-11-08	4-20-08	Request authorization from the CPUC to commence with reentry and conversion of Wells Lambie 6 and Lambie 7 to observation wells for Phase II of the Kirby Hills Natural Gas Storage Facility Project.
#3	5-2-08	5-6-08	Request a NTP from the CPUC for PG&E's hot tapping work at the Kirby Hills Natural Gas Storage Facility meter station, located west of Birds Landing Road in Solano County.
#4	4-29-08	5-7-08	Request authorization from the CPUC to commence with the civil, mechanical, electrical, and instrumentation work at the compressor station facility of the Kirby Hills for Phase II of the Kirby Hills Natural Gas Storage Facility Project.
#5	5-23-08	N/A	Request authorization from the CPUC for extra work space at the corner of Shiloh Road and the access road to Kirby Hills. This work space was already approved under NTP #1 and therefore NTP #5 is not necessary. Wetland areas within the work space will be totally avoided.
#6	6-9-08	6-13-08	Request to install compressor units on foundations at Compressor Station.
#7	12-14-08	12-17-08	Request to conduct modifications at the Metering Station, located west of Birds Landing Road in Solano County.

## VARIANCE REQUESTS:

No Variance Requests have been submitted to the CPUC to date.

## **PHOTOGRAPHS**



**Figure 1** – View of well site 22 (WS-22) from hillside, February 18, 2009.



**Figure 2** – Cut slope at well site 23 (WS-23) revegetating, February 18, 2009.



**Figure 3** – Temporary work space/staging yard north of compressor station revegetating, February 18, 2009.



**Figure 4** – Piping at the compressor station, February 18, 2009.