PUBLIC UTILITIES COMMISSION
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November 30, 2015 GI-2015-09-WGS-36-01A, 05, & 06

Mark Casaday, COO (Mark.Casaday@niskapartners.com)
Niska Gas Storage Radnor Office
170 Radnor Chester Road, Suite 150
Wayne, PA 19087

SUBJECT: General Order 112 Inspection of Wild Goose Gas Storage

Dear Mr. Casaday:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC) conducted a General Order 112 inspection of Wild Goose Gas Storage (WGS) from September 14 through 18, 2015. [1] The inspection included a review of corrosion control, public awareness, and drug and alcohol records for the period of 2012 through 2014. SED staff also reviewed WGS's operator qualification records, which included a field observation of randomly selected individuals performing covered tasks.

SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular records and pipeline facilities that SED reviewed during the inspection.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by WGS to address the violations and observations noted in the Summary. Pursuant to Commission Resolution ALJ-274, SED staff has the authority to issue a citation for each violation found during the inspection.

If you have any questions, please contact Alula Gebremedhin at (415) 703-1816 or by email at ag5@cpuc.ca.gov.

Sincerely,

Kenneth A. Bruno

Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

Enclosure: Summary of Inspection Findings

cc: Gary Theberge, NISKA Gas Storage Partners (Gary.Theberge@niskapartners.com)
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[1] General Order 112-F was adopted by the Commission on June 25, 2015 via Decision 15-06-044.

SUMMARY OF INSPECTION FINDINGS

A. Probable Violations

1. Title 49 CFR §199.105 (c) states in part:

   "Random testing: (1) Except as provided in paragraphs (c)(2) through (4) of this section, the minimum annual percentage rate for random testing shall be 50 percent of covered employees."

   And, Paragraph 3 states:

   "(3) When the minimum annual percentage rate for random drug testing is 50 percent, the Administrator may lower this rate to 25 percent of all covered employees if the Administrator determines that the data received under the reporting requirements of §199.119 for two consecutive calendar years indicate that the reported positive rate is less than 1.0 percent."

   However, WGS's Anti-Drug and Alcohol Misuse Prevention Plan, pages 17 & 18 states in part:

   ***"Random Drug Testing**. The Company will conduct a number of random tests each calendar year that meets or exceeds the current minimum annual percentage random testing rate. The minimum rate for random drug testing, set by the PHMSA regulation, is 25 percent of the Company's covered employees. If the industry random drug testing positive rate is above 1 percent, PHMSA will raise the annual percentage rate for random drug testing to 50 percent of the Company's covered employees."*

   WGS is in violation of Title 49 CFR §199.105 (c)(1) for failing to adhere to the required 50% minimum annual percentage rate for random testing, before lowering to 25% if tests for two consecutive calendar years indicate that the reported positive rate is less than 1.0 percent.

   WGS must develop and implement a procedure to ensure the required minimum annual percentage for random testing is met.

2. Title 49 CFR §192.481(a) states:

   "Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

   If the pipeline is located: Onshore
   Then the frequency of inspection is: At least once every 3 calendar years, but with intervals not exceeding 39 months"

   And,

   Title 49 CFR §192.491(c) states in part:

"Each operator shall maintain a record of each test, survey, or inspection required by this subpart in sufficient detail…."

WGS could not provide atmospheric corrosion inspection records of its above ground pipelines. WGS provided some coating repair and painting work documentation to demonstrate the actions taken where remedial action was necessary; however, WGS should maintain a record of each test, survey, or inspection.

3. Title 49 CFR §192.463(c) states

"The amount of cathodic protection must be controlled so as not to damage the protective coating or the pipe."

WGS's Operations and Maintenance (O&M) plan does not address the requirement of §192.463(c) because the plan does not outline an upper limit protection level or remedial actions to take when over-protection is discovered.

In addition, the 2015 corrosion monitoring report also noted stray current from the newly installed rectifier R5 and ground bed which was intended to protect the pipe inside the plant but not the 18", 24", or 30" pipelines. SED also observed high pipe-to-soil potentials during field visits, as shown in Table 1 below.

Please provide an update of actions taken to address:

- The suggestion in the report to closely monitor for interference or to install an interference bond between the plant and the pipelines tied to it
- How WGS will address §192.463(c) in its procedures
- How WGS will address the high reads listed in Table 1

Table 1. High Pipe to Soil potentials

Line	Test point	Station (MP)	10/2014 reads (mV)	09/17/15 reads (mV)
30"	Meter	1, 2, 3	-1260	**-1700**, -1295, **-1650**
	3	1.7	No read	-1395
	5	3.2	-1420	Ripped off, no ets
	9	7	-1580	-1454
	13	13.4	-2010	**-1936**
	14	13.7	-1490	-1506
	18	18	NR	**-1692**
	22	2.18	NR	**-2150**
			Plant	**-1980**

B. Areas of Concern and Recommendations

1. Title 49 CFR §192.475 (a) Internal Corrosion Control states:

"Corrosive gas may not be transported by pipeline, unless the corrosive effect of the gas on the pipeline has been investigated and steps have been taken to minimize internal corrosion."

In response to SED's request regarding how internal corrosion controls have been addressed in its system, WGS's response (dated September 30, 2015) states in part:

"WGS believes there is minimal threat of internal corrosion within their three (3) pipelines:

- *The 30" line is only exposed to transmission quality gas that meets PG&E specifications. Whenever poly pigging has been done in the past on the 30" pipeline, it has always resulted in zero fluid recovery.*
- *Both the 18" and 24" pipelines are exposed to natural gas with low- medium water saturation levels, and a very short period when it encounters free water production from the wells. The WGS Plant process system is setup to only dry the gas with tri-ethylene glycol dehydration system, and compression to boost the pressure of the gas. The gas is free of acid gas impurities such as carbon dioxide (CO2) and hydrogen sulphide (H2S). In order for corrosion to occur within the wet gas stream in the gathering pipelines, oxygen (O2), CO2, or H2S needs to be present, which is not the case.*

Based on the fact that WGS only injects PG&E tariff quality gas, that in turn only requires water separation / dehydration processing, before being returned to PG&E's transmission system, and that there is no evidence of corrosive qualities within the gas stream, WGS concludes that CFR 192.477 is not applicable to their operation."

During withdrawal, water may be introduced from the well pads and transported through the 18" and 24" pipes before dehydration takes place at the Plant, i.e. Compressor Station (Refer to Figure 1 for pipeline configuration). This mainly occurs during periods of increased withdrawal, and when the gas volume inside the reservoir is low. These pipelines also cross beneath canals, at which these low points in the pipelines have an increased potential for water accumulation.

In addition, unless gas quality tests are conducted at the well pads, it is difficult to determine that the gas withdrawn from the reservoir has the same constituents as that of the injected gas WGS received from PG&E.

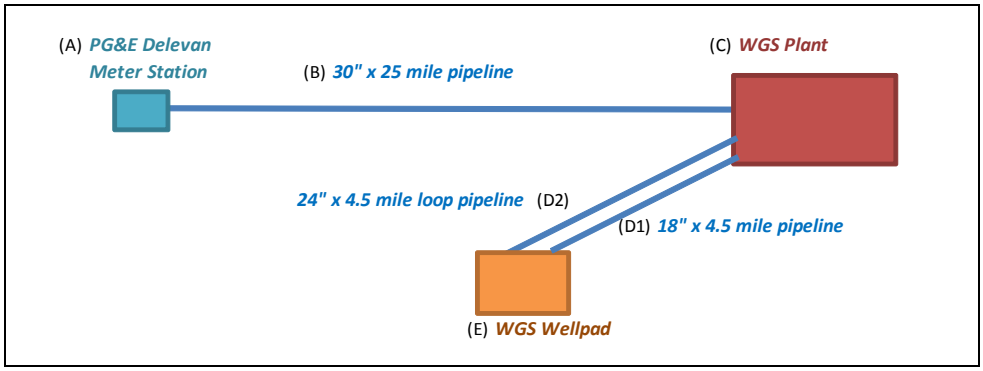
In addition, WGS's O&M plan, page 82 states:

***"GAS ANALYSIS AND EVALUATION** - Gas samples shall be taken at applicable locations and tested for the presence and concentration of corrosive components if there is a reasonable possibility that corrosive gas could occur in a pipeline system. Testing shall be done at least twice each year with intervals not exceeding 7-1/2 months.*

Dew point (water content) analysis shall be performed on gas sources once each month not to exceed 6 months between inspections. Where potentially corrosive gas is found as a result of gas testing, initiate the remedial action prior to the next test."

Therefore, SED recommends WGS regularly test gas samples at the well pad for the presence and concentration of corrosive components and take the necessary actions based on the results found, before transporting the gas back through the 18" and 24" pipelines.

Figure 1: WGS pipeline Configuration



2. Title 49 CFR §192.616 (a) and §192.616 (i) state in part:

"(a) Except for an operator of a master meter or petroleum gas system covered under paragraph (j) of this section, each pipeline operator must develop and implement a written continuing public education program that follows the guidance provided in the American Petroleum Institute's (API) Recommended Practice (RP) 1162 (incorporated by reference, see §192.7)"

...

"(i) The operator's program documentation and evaluation results must be available for periodic review by appropriate regulatory agencies."

And:

American Petroleum Institute Recommended Practice (API RP) 1162 Section 8: Program Evaluation, 8.1: PURPOSE AND SCOPE OF EVALUATION explains the purpose as follows:

(1). Assess whether the current program is effective in achieving the objectives, and

(2). Provide the operator information on implementing improvements in its PAP effectiveness

WGS mailed questionnaires annually to different stakeholders as part of its program effectiveness evaluation process, and found the return mail percentage was 1.26% in 2011, 1.23% in 2012, & 1.12% in 2013. Even though this low turnout is beyond the control of

WGS, SED recommends that WGS use additional means of communications to gather more information: e.g. annual meetings with selected stakeholders, email to known stakeholders.

In addition, WGS cannot provide documentation of conclusions drawn from the responses received from stakeholders. SED recommends that WGS analyze stakeholder responses, document lessons learned and areas of improvement, and document WGS's methods of addressing the issues.