

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking on the Commission's Own  
Motion to Adopt New Safety and Reliability  
Regulations for Natural Gas Transmission and  
Distribution Pipelines and Related Ratemaking  
Mechanisms.

Rulemaking 11-02-019  
(Filed February 24, 2011)

**AMENDED NATURAL GAS SYSTEM OPERATOR  
SAFETY PLAN OF WILD GOOSE STORAGE, LLC**

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Dated: August 24, 2012

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SAFETY PLAN OF WILD GOOSE STORAGE, LLC**

In accord with the July 20, 2012 Ruling of the Assigned Commissioner in the above captioned proceeding, Wild Goose Storage, LLC (Wild Goose) submits its Amended Natural Gas Safety Plan.

On June 29, 2012, in accord with Ordering Paragraph 5 of Commission Decision 12-04-020 and Section 961(b) of the California Public Utilities Code, Wild Goose submitted its Natural Gas System Operator Safety Plan (Safety Plan). The plan was set forth in a Table of Concordance and supporting documentation. The Safety Plan demonstrates, consistent with Public Utilities Code Section 963(b) (3), that Wild Goose places the safety of the public and its employees as its top priority. Specifically, Wild Goose demonstrated how the Safety Plan achieves each of the specific criteria required in Public Utility Code §§961 (c) and (d) (1-10) as outlined on pages 16 and 17 of Decision 12-02-024 as well as being consistent with industry best practices and with federal pipeline safety statutes and implementing regulations.

Through this amendment, Wild Goose provides additional information on two elements of its safety plan: (1) protocols for determining maximum allowable operating pressure; and (2) practices for performing in-line inspections. With respect to the former, the Amended Safety

Plan provides more exacting detail on the process used for determination and substantiation of the MAOP for the pipelines associated with the Wild Goose gas storage facility. With respect to the latter, the Amended Safety Plan addresses the concerns raised in the July 10, 2012 letter of Assemblyman Jerry Hill to Commissioner Michel Florio regarding in-line inspections, and, in particular, the use of third party contractors to perform such inspections. These changes are reflected in a revised Table of Concordance, attached hereto.<sup>1</sup>

Wild Goose continues to look forward to working with the Commission on the review, approval and further implementation of the Safety Plan.

Respectfully submitted August 24, 2012, at San Francisco, California.

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<sup>1</sup> For ease of reference, the changes are reflected on pages 4-7 of the Table.

**ATTACHMENT A**

**Wild Goose System Operator Safety Plan – Amended Table of Concordance**

**Wild Goose System Operator Safety Plan - Table of Concordance  
California Public Utility Codes §§ 961 and 963**

	<b>PUBLIC UTILITY CODE:</b>	<b>TOPIC:</b>	<b>RESPONSE:</b>
Section 1	961.(b)(4)	Periodic review and update of the Safety Plan*	<ul style="list-style-type: none"> <li>• Wild Goose reviews its Emergency Response Plan (ERP) on an annual basis, in the first quarter of each calendar year. Wild Goose engages Shepard Risk and Safety Advocates of Indio, California to assist in the review and update. Updated hard copies of the ERP are couriered to all relevant parties identified within the ERP, including the Commission.</li> <li>• The Integrity Management Plan (IMP) is reviewed each year in June and updates are immediately couriered to Niska Operations/Engineering groups. Operator Qualifications are reviewed and updated accordingly every three years, including the Department of Transportation (DOT) required training. This is outlined in the training matrix attached and marked as Appendix A.</li> <li>• Other documents that form part of the Safety Plan, as identified in this submission, are updated as required.</li> </ul>
Section 2	<b>List of Issues from Pub. Util. Code §§ 961 (c) and (d) (1-10) (as per Decision 12-04-010)</b>		
	<p>Identify and minimize hazards and systematic risks. 961(d)(1)</p> <p>Identify the safety-related systems that will be deployed to minimize hazards. 961(d)(2)</p>	Safety Systems	<p>Wild Goose maintains numerous Safety Systems designed to identify and minimize hazards and systematic risks, including:</p> <ul style="list-style-type: none"> <li>• IMP page 5/section 2 - Pipeline System Description: the pipeline system is maintained in compliance with 49 CFR Part 192 and was placed under cathodic protection shortly after commissioning</li> <li>• IMP page 17/section 5.4 - Condition Discovery and Remediation Schedule: integrity assessments in accordance with this section help prioritize and evaluate remediation of anomalous conditions; reductions in operating pressure are determined using ASME/ANSI B31G or AGA Pipeline Research Committee Project PR-3-805 and notifications are made to the Pipeline and Hazardous Materials Safety Administration and the Commission Utilities Safety and Reliability Branch as required</li> <li>• IMP page 19/section 6 - Preventive and Mitigative Measures: provides detailed measures to protect high consequence areas and to enhance public safety,</li> </ul>

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			<p>including measures for outside force damage threats, corrosion threats and the need for automatic shut-off or remotely operated valves</p> <ul style="list-style-type: none"> <li>• IMP page 20/section 7 - Program Management: performance measures are reported and submitted to PHMSA by March 15 of each year; Program Management also includes Record Keeping, Management of Change and Internal and External Communications</li> <li>• IMP page 23/section 8 - Quality Assurance: includes the appropriate documentation, training, assigned responsibilities, program reviews and audits to ensure success and continued improvement of the IMP</li> <li>• Wild Goose has an online database, accessible by all employees, detailing all hazardous materials used in its operations</li> <li>• Section 12 of the ERP deals extensively with Hazardous Materials Information</li> </ul>
	<p>Equipment and personnel procedures to limit the damage from accidents. 961(d)(5)</p> <p>Timely response to reports of leaks, hazardous conditions, and emergency events. ( 961(d)(6)</p> <p>Prepare for and respond to earthquakes and other major events. 961(d)(8)</p>	<p>Emergency Response</p>	<p>Wild Goose has a comprehensive Emergency Response Plan and provides extensive training to its employees to ensure that the response to any emergency or abnormal situation is answered in a timely and effective manner:</p> <ul style="list-style-type: none"> <li>• Section 7.0 - Niska Facility Sample Response Strategies of the ERP provides emergency response procedures including strategies for: <ul style="list-style-type: none"> <li>- Loss of Well Control (7.2)</li> <li>- Pipeline Rupture (7.3)</li> <li>- Escaping Gas (7.4)</li> <li>- Natural Disasters (7.5)</li> <li>- Major Fires and Explosions (7.6)</li> </ul> </li> <li>• The ERP includes extensive evacuation procedures to ensure the timely and effective evacuation of residents within the Emergency Planning Zone and to limit damage from accidents to equipment and personnel</li> </ul>

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			<ul style="list-style-type: none"> <li>• Section 6.0 - Site Specific Information of the ERP includes site specific emergency response information including: <ul style="list-style-type: none"> <li>- Emergency Control Systems (6.1.2)</li> <li>- Emergency Communications (6.1.3)</li> <li>- Safety Equipment (6.1.4)</li> <li>- Hazardous Materials Storage (6.1.5)</li> <li>- High Consequence Area (6.1.10)</li> <li>- Emergency Planning Zones (6.1.11)</li> </ul> </li> <li>• In conjunction with our ERP, section 3 of the IMP provides for an Identification Method for High Consequence Areas and section 4 deals with Threats, Data Integration and Risk Assessment</li> <li>• Our Environmental Health and Safety Handbook for US Operations (Handbook) provides for: <ul style="list-style-type: none"> <li>- Emergency Response Planning and Reporting (section 5)</li> <li>- Hazard Identification and Control (section 6)</li> <li>- Fire Prevention (section 10.10)</li> </ul> </li> </ul>
	<p>Protocols for determining maximum allowable operating pressures. 961(d)(7)</p> <p>Meet or exceed the minimum standards for safe design, construction, installation, operation, and maintenance of gas transmission and distribution facilities prescribed by regulations. 961(d)(9)</p> <p>Best practices in the gas industry and with federal pipeline safety statutes. 961(c)</p>	<p align="center">State and Federal Regulations</p>	<p>During design stage of the project, Niska determines what pressure is best suited for the operation. This is based on:</p> <ul style="list-style-type: none"> <li>• Maximum operating pressure of reservoir, staying within Division of Oil, Gas and Geothermal Resources pressure gradient requirement</li> <li>• Maximum operating pressure of the transmission system that the new facility will be tied into, which for California has been Pacific Gas and Electric Company</li> <li>• Hydraulic study of various piping size systems is performed by third party professional engineering firm to determine pressure loss in system, and operating pressure/ temperature requirements for piping/ equipment to satisfy needs</li> </ul>

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			<ul style="list-style-type: none"> <li>• The optimum sized equipment, and piping size is selected. The pressure at which this equipment / pipe will operate at is confirmed</li> </ul> <p>A professional engineering firm utilizes this information to determine pipe specification requirements to safely satisfy the maximum allowable operating pressure (MAOP). They look closely at pipe classification, crossings, pipe stresses, hydrotest requirements, terrain/ environment, and other criteria for which the pipe will be utilized, to ensure proper design detail is applied to the MAOP calculation (49CFR192). This in turn, ensures that the required pipe specifications/ wall thickness is selected for all sections of the pipe.</p> <p>The process of determination and substantiation of the MAOP for the Wild Goose Gas Storage pipelines is as follows:</p> <ul style="list-style-type: none"> <li>• The design operating pressure of the pipeline is determined using volume throughput, upstream pressure, desired downstream pressure, velocity restrictions, and compression requirements to optimize the pipeline diameter.</li> <li>• With the optimal pipeline diameter determined, the pipeline wall thickness and steel yield strength are calculated to provide for the required design operating pressure by using the following design formula for steel pipe. (The actual wall thickness / yield strength combination is influenced by construction variables, material availability, and cost.)</li> </ul> <p><b><math>P = (2 St/D) \times F \times E \times T</math></b></p> <p><i>P</i> =Design pressure in pounds per square inch gauge.</p> <p><i>S</i> =Yield strength of the steel in pounds per square inch.</p> <p><i>D</i> =Nominal outside diameter of the pipe in inches.</p> <p><i>t</i> =Nominal wall thickness of the pipe in inches.</p>
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*E* =Longitudinal joint factor (1.00 for DSAW and ERW pipe)  
*T* =Temperature derating factor (1.00 for 250° F or less)  
*F* =Design factor determined in accordance with the following:

Class location	Design factor ( <i>F</i> )
1	0.72
2	0.60
3	0.50
4	0.40

A design factor of 0.60 or less must be used in the design formula in steel pipe in Class 1 locations that:

- (1) Crosses the right-of-way of an unimproved public road, without a casing;
- (2) Crosses without a casing, or makes a parallel encroachment on, the right-of-way of either a hard surfaced road, a highway, a public street, or a railroad;
- (3) Is supported by a vehicular, pedestrian, railroad, or pipeline bridge; or
- (4) Is used in a fabricated assembly, (including separators, mainline valve assemblies, cross-connections, and river crossing headers) or is used within five pipe diameters in any direction from the last fitting of a fabricated assembly, other than a transition piece or an elbow used in place of a pipe bend which is not associated with a fabricated assembly.

For Class 2 locations, a design factor of 0.50, or less, must be used in the design formula for uncased steel pipe that crosses the right-of-way of a hard surfaced road, a highway, a public street, or a railroad.

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For Class 1 and Class 2 locations, a design factor of 0.50, or less, must be used in the design formula in for steel pipe in a compressor station, regulating station, or measuring station.

The MAOP is obtained by dividing the pressure to which the segment was tested after construction by a factor determined in accordance with the following table:

Class location	Factors	
1		1.1
2		1.25
3		1.5
4		1.5

The test medium is water and the test is conducted in accordance with CFR 49 PART 192—TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS. The test pressure can nowhere along the pipeline exceed 100% of SMYS of the steel. The maximum allowable operating pressure cannot exceed the design pressure determined by the above design formula for steel pipe.

The IMP was developed to address the High Consequence Area that exists along one of the pipelines Wild Goose operates. The IMP includes the requirement to perform in line inspection on the pipeline with a smart pig tool, with intent of identifying size/ type/ location of any defects. Wild Goose recognizes the importance of maintaining pipeline integrity, and performs periodic in line inspection on their other gas pipelines too.

Wild Goose carefully selects their ILI contractors by first identifying which ones can perform the desired services and level of inspection that's required. The contractor that's awarded the contract is determined after going through a request for quote/ bid analysis process. Each bid is evaluated in detail, which involves discussion with each ILI company clarifying various components of their

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			<p>tender. Preparation of the ILI program, selection of contractor, and analysis of inspection data, is performed by Wild Goose in conjunction with a pipeline engineering company that possesses technical experts and software that aids in the assessment.</p> <p>Wild Goose complies with all state and federal regulations including:</p> <ul style="list-style-type: none"> <li>• California Public Utilities Code</li> <li>• Department of Transportation (DOT) Regulations</li> <li>• Pipeline and Hazardous Materials Safety Administration</li> <li>• Department of Transportation, Commission and any permitting agency that could require some pipeline/safety related actions as part of the condition for permit</li> <li>• We utilize GTS Engineering and Consulting services to update the IMP, and perform annual IMP review;</li> </ul> <p>Wild Goose’s commitment to best practices is also stated in the Environmental Health &amp; Safety Policy Statement at page 5 of the Handbook.</p>
	<p>Safety of the public and gas corporation employees as the top priority, take all reasonable and appropriate actions consistent with the principle of just and reasonable cost-based rates.  963(b)(3)</p> <p>Provide adequate storage and transportation capacity to reliably and safely deliver gas to all customers.  961(d)(3)</p> <p>Provide for effective patrol and inspection to detect leaks.</p>	<p>Continuing Operations</p>	<p>Our Public Awareness Program (PAP) has been submitted and approved by the Commission and complies with the American Petroleum Industry Public Awareness Programs for Pipeline Operators Recommended Practice and is designed to enhance public environmental and safety property protection through increased public awareness.</p> <p>The PAP focuses on safety communication to four main groups: residents; emergency response officials; public officials and excavators and will provide the public, appropriate government organizations, persons engaged in excavation, public/private utility companies, and related activities with information on how to identify the location of underground pipelines owned and operated by Wild Goose and how to recognize and report a natural gas pipeline emergency.</p> <ul style="list-style-type: none"> <li>• ERP Section 8 - outlines the communication plan to the affected public in the event of an emergency</li> </ul>

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<p>Ensure an adequately sized, qualified, and properly trained gas corporation workforce. 961(d)(10)</p>		<ul style="list-style-type: none"> <li>• Employees attend extensive training and orientation on Wild Goose operations and environmental and safety matters; this orientation given by the Environment Health &amp; Safety Coordinator in accordance with Section 1.0 of the Handbook</li> <li>• Employees are required to comply with numerous policies, procedures and guidelines in place to ensure that safety is the top priority, these include but are not limited to:             <ul style="list-style-type: none"> <li>- Anti-Drug and Alcohol Misuse Prevention Plan developed in accordance with the DOT and acknowledged by each employee at Section VIII. Appendix A – Acknowledgement/Receipt Form</li> </ul> <p>And in accordance with the Handbook:</p> <ul style="list-style-type: none"> <li>- Incident Reporting and Investigation</li> <li>- Near Miss Reporting</li> <li>- Energy Isolation</li> <li>- Gas Detection Practices</li> <li>- Hazard Assessment and Control Practice</li> <li>- Safe Trenching and Shoring Practices</li> <li>- Confined Space Entry</li> <li>- Pipeline Purging Practices</li> <li>- Safety Work Permit System, including Hot Work</li> </ul> </li> <li>• The Engineering and Operations group monitors reservoir capacity, well behavior, and pipeline/ plant operating conditions on a regular basis. They also are in communication with the transmission company daily to check on their system pressures, hydraulics, etc. Any bottlenecks or deficiencies are quickly identified and rectified. The Operations group implements a preventative maintenance program to reduce risk of equipment failure, ensuring reliability is high. Flow performance curves are generated that reflect overall facility capability at various levels of reservoir inventory.</li> <li>• IMP page 9/section 4 - details the process for threats and detection of leaks including time dependent</li> </ul>
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			<p>threats; static or resident threats; time-independent threats or any additional threats</p> <ul style="list-style-type: none"> <li>• Wild Goose's manpower plan is reviewed annually by Human Resources with the cooperation of operations</li> <li>• Wild Goose ensures that all employees are training in the appropriate areas, in a timely manner and by the appropriate trainer in accordance with the attached training matrix, marked as Appendix B</li> </ul>
Section 3	§961(e)	Opportunities for participation in the Safety Plan	<p>Wild Goose is committed to ensuring an engaged and responsive workforce to maintain the highest safety environmental standards, examples include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Confidence Line - a well publicized third party communications program that allows employees to anonymously report sensitive work related issues</li> <li>• EHS Handbook - offers an extensive resource for employees on environmental and safety issues including: <ul style="list-style-type: none"> <li>- Health and Safety Meetings</li> <li>- Health and Safety Responsibilities</li> <li>- General Safety Practices</li> <li>- Work Site Safety Practices</li> <li>- Other Safety Practices</li> </ul> </li> <li>• Employees actively participate in the update and maintenance of TIPS (Training Information Practice System) providing over 100 safe work procedures, including equipment operation safety and standards, on an accessible share drive</li> </ul>