



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

NOTICE OF AMENDMENT

VIA ELECTRONIC MAIL TO: mitch.samuelian@nrgenergy.com

December 10, 2024

Mr. Mitchell Samuelian
General Manager
NRG Energy Services
100302 Yates Well Rd.
Nipton, CA 92364

CPF 5-2024-025-NOA

Dear Mr. Samuelian:

From May 8 through May 9, 2023, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected NRG Energy Services procedures for the Ivanpah Fuel Gas Line's operations and maintenance in Nipton, California.

As a result of the inspection, PHMSA has identified the apparent inadequacies found within NRG Energy Service's plans or procedures, as described below:

1. § 191.5 Immediate notice of certain incidents.

(a) At the earliest practicable moment following discovery, but no later than one hour after confirmed discovery, each operator must give notice in accordance with paragraph (b) of this section of each incident as defined in § 191.3.

(b) Each notice required by paragraph (a) of this section must be made to the National Response Center either by telephone to 800-424-8802 (in Washington, DC, 202 267-2675) or electronically at <http://www.nrc.uscg.mil> and must include the following information:

- (1) Names of operator and person making report and their telephone numbers.**
- (2) The location of the incident.**
- (3) The time of the incident.**
- (4) The number of fatalities and personal injuries, if any.**
- (5) All other significant facts that are known by the operator that are relevant to the cause of the incident or extent of the damages.**

NRG's procedures failed to direct personnel when and who to contact for reporting an incident as defined in § 191.3. Specifically, the reporting criteria and contact information within in the operations, maintenance, and emergencies (O&M) manual and the Control Room Procedure were incorrect.

Section 5.8 of NRG's Control Room Procedure directed the operator's personnel to contact the USDOT via 800-476-4922 when, "There is a release of gas from a pipeline AND there is a death or personal injury requiring hospitalization or there is estimated property damage, including the cost of gas lost by the Operator or others, of \$50,000 or more or There is an event that is significant in the judgement of the operator, even though it was not as previously described." The 1-800-476-4922 phone number is for the USDOT Hazardous Materials information center, which is not the appropriate contact number when communicating a pipeline incident involving a death has occurred. An operator must contact the National Response Center by telephone at 800- 424-8802 following an incident.

Also, the reportable criteria for monetary-loss values notated within NRG's operations, maintenance and emergencies manual (O&M Manual) and Control Room Procedures were not consistent with each other or the criteria for reportable incidents per § 191.3. Within the Definitions section of § 191.3, incidents are considered reportable if property damage is estimated to be \$122,000 or more. The criteria within the Control Room Procedure's, Section 5.8, stated an estimated property damage of \$50,000 would require notification to PHMSA. The O&M manual's, Section 19.14, stated a cost estimate of \$129,300 would require notification. NRG must amend its procedures to clearly specify when and how personnel are required to notify PHMSA of an incident.

2. § 192.615 Emergency plans.

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)...

(2) Establishing and maintaining adequate means of communication with the appropriate public safety answering point (i.e., 9-1-1 emergency call center), where direct access to a 9-1-1 emergency call center is available from the location of the pipeline, and fire, police, and other public officials. Operators may establish liaison with the appropriate local emergency coordinating agencies, such as 9-1-1 emergency call centers or county emergency managers, in lieu of communicating individually with each fire, police, or other public entity. An operator must

determine the responsibilities, resources, jurisdictional area(s), and emergency contact telephone number(s) for both local and out-of-area calls of each Federal, State, and local government organization that may respond to a pipeline emergency, and inform such officials about the operator's ability to respond to a pipeline emergency and the means of communication during emergencies.

NRG failed to establish and maintain adequate means of communication with appropriate emergency response entities. Specifically, the contact information was found to be inconsistent between the O&M Manual and the Control Room Procedure.

NRG's O&M Manual, Sections 19.7, 19.8, 19.9 each stated, "Notify Ivanpah Solar chain of command. Refer to Section 19.10" and "Notify local emergency officials if necessary. Refer to Section 19.10". NRG's O&M Manual, Section 19.10 did not contain any contact information or instructions for who in the chain of command to contact in the event of an emergency, nor did it include contact information or instructions for contacting emergency officials. Rather, the information for contacting emergency officials is found in Section 19.13 of the O&M Manual. Section 6 of the Control Room Procedure did contain a contact list with numerous internal personnel and outside agencies that should be notified in the event of an incident. However, the contact information, specifically phone numbers, for the San Bernardino's fire department, sheriff's office, and emergency management, within Section 6 of the Control Room Procedure were not consistent with the same emergency officials' contact information within Section 19.13 of the O&M Manual. Thus, NRG must amend its procedures to provide correct contact information regarding who to notify within the chain of command and emergency response personnel within its manuals.

3. § 192.615 Emergency plans.

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)...

(3) Prompt and effective response to a notice of each type of emergency, including the following:

(i) Gas detected inside or near a building.

(ii) Fire located near or directly involving a pipeline facility.

(iii) Explosion occurring near or directly involving a pipeline facility.

(iv) Natural disaster.

NRG failed to provide adequate written guidance to minimize the hazard resulting from a gas pipeline emergency. Specifically, during the inspection, PHMSA observed that the O&M manual failed to provide direction for a prompt and effective response to a notice of each type of emergency. The O&M Manual also failed to provide guidance to take necessary actions to minimize hazards of release gas to life, property, or the environment.

For instance, the Ivanpah Fuel Gas Line does not have any compressors along the pipeline.

However, the O&M Manual makes repeated reference to shutting the compressors down in an emergency. O&M Manual, Section 19.7, Unintended Release of Gas 192.615(a)(3)(i), page 170 of 225, stated, "If necessary and it can be done safely, manually shut the compressors down." O&M Manual, Section 19.8, Fire / Explosion, page 171 of 225, stated, "If it can be done safely, shut the compressor(s) down." O&M Manual, Section 19.9, Natural Disaster, page 172 of 225, stated, "If necessary and it can be done safely, manually shut the compressors down." Therefore, NRG must amend its procedures to exclude erroneous tasks for prompt and effective response to a notice of emergency.

Additionally, during the inspection, an NRG representative provided PHMSA with an O&M Manual as well as NRG's Control Room Procedure^a. The NRG representative stated both may be utilized during an emergency event. However, these two independent manuals do not contain any reference to each other, though both are required in the event of an emergency.

Therefore, NRG must amend its procedures to be consistent and exclude erroneous tasks for prompt and effective response to a notice of emergency while clearly directing personnel as to which manual to use during an emergency.

4. § 192.615 Emergency plans.

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)...

(4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.

NRG failed to describe, within its O&M manual, the availability of equipment, tools, and materials, as needed at the scene of an emergency.

O&M manual, Section 19.19, Post-Incident Effectiveness Review 192.615(b)(3), page 183 of 255, Paragraph 4 Release and Discharge, contained a question, "Was adequate equipment provided to aid in the isolation of the oil spill leak?" The Ivanpah pipeline system is a Fuel Gas pipeline that does not transport liquid hydrocarbons. The same page also included the question, "Were personnel capable and properly utilize equipment?" However, no other section within the O&M Manual described or listed equipment, tools, or materials needed at the scene of an emergency consistent with a gas transmission pipeline. NRG must therefore amend its procedures to include the availability of personnel, equipment, tools, and materials needed at the scene of an emergency involving a gas transmission pipeline release.

5. § 192.615 Emergency plans.

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)...

^a Exhibit A-2

(6) Taking necessary actions, including but not limited to, emergency shutdown, valve shut-off, or pressure reduction, in any section of the operator's pipeline system, to minimize hazards of released gas to life, property, or the environment

NRG's procedures fail to adequately direct operator personnel on which necessary actions to take during an emergency, including but not limited to, emergency shutdown, valve shut-off or pressure reduction, in any section of the Ivanpah Fuel Gas pipeline, to minimize hazards of released gas to life, property, or the environment. Specifically, NRG's O&M Manual, Section 3.4, Shutdown Procedures, page 15 of 225, stated, "NOTE: See Section 19.18 for Emergency Shutdown procedure" and Section 19.2, Response Guidelines, page 167 of 225, of the O&M Manual stated, "Refer to Section 19.18 for emergency shutdown procedures." However, Section 19.18 of the O&M Manual, titled Investigation of Failure, on page 179 of 225, was not an emergency shut-down procedure. Section 19.18, only referred to the investigation of failures. Indeed no emergency shutdown procedures were observed to be contained within the O&M Manual.

Additionally, NRG's O&M Manual did not contain any procedures on which specific valves must be operated during an emergency to shut down the pipeline as a whole or any section of the pipeline system. The lack of information was noted in the emergency response, Tabletop exercise documentation on August 15, 2017. While providing feedback on the drill, employees noted a lack of pipeline drawings, valve location maps, and detailed descriptions of which valve(s) would be required to be closed during the exercise. NRG must therefore amend its procedures in accordance with § 192.615(a)(6).

6. § 192.615 Emergency plans.

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)...

(9) Safely restoring any service outage.

NRG's O&M manual failed to clearly direct an operator to the correct section of the O&M Manual to safely restore any pipeline after an outage. Specifically, NRG's O&M manual, Section 19.16, Post Incident Procedures, 192.615(a)(9), page 177 of 225, stated, "Slowly bring the pipeline into service, monitoring pressures. Refer to Section 19.17 for requirements to place a pipeline system back into service after an emergency."

However, O&M manual, Section 19.17, page 178 of 225, titled "Incident Documentation" did not contain any procedures directing operator personnel on how to bring the Ivanpah pipeline back into service. Those procedures were found in Section 19.20 of the O&M Manual, page 185 of 225, titled "Placing System Back into Service 192.605(a)(5)," Section 19.20 described all the procedural steps to bring the Ivanpah pipeline back into service.

Therefore, NRG must amend its procedures to direct personnel to the appropriate section within the O&M Manual to safely restore the system back to normal operations.

7. **§ 192.615 Emergency plans.**

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)...

(12) Each operator must develop written rupture identification procedures to evaluate and identify whether a notification of potential rupture, as defined in § 192.3, is an actual rupture event or a non-rupture event. These procedures must, at a minimum, specify the sources of information, operational factors, and other criteria that operator personnel use to evaluate a notification of potential rupture and identify an actual rupture. For operators installing valves in accordance with § 192.179(e), § 192.179(f), or that are subject to the requirements in § 192.634, those procedures must provide for rupture identification as soon as practicable.

NRG's procedures do not include instructions on how to evaluate and identify whether a notification of potential rupture, as defined in § 192.3, is an actual rupture or non-rupture event. Specifically, a review of NRG's O&M Manual, Section 19.11, Rupture Identification Procedure 192.615(a)(12), page 173 of 225, revealed that while the language included § 192.615(a)(12), "Ivanpah Solar must develop written rupture identification procedures to evaluate and identify whether a notification of potential rupture, as defined in 192.3, is an actual rupture event or a non-rupture event", the procedures did not include any instructions on how or what step the operator's personnel would need to take to evaluate and identify whether a notification of potential rupture was an actual rupture event.

Therefore, NRG must amend its procedures to develop written rupture identification procedures as described pursuant to § 192.615(a)(12).

8. **§ 192.631 Control room management.**

(a)...

(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

(1) ...

(3) Test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months;

NRG's procedures fail to include requirements to test and verify its internal communications plan to provide adequate means for manual operator of the pipeline safely at least once each calendar year, at intervals not to exceed 15 months, as required. Specifically, neither NRG's

O&M Manual or Control Room Procedures include this requirement.

NRG's O&M Manual included discussion of an internal communication plan during a SCADA failure, abnormal operating condition, or emergency event. Similarly, NRG's Control Room Procedure included discussion of an internal communication plan, in greater depth than in the O&M manual. However, neither of the manuals explicitly required testing and verification of an internal communication plan to provide adequate means for manual operation of the pipeline, at least once each calendar year, but at intervals not to exceed 15 months.

Therefore, NRG must amend its procedures to include testing and verifying its internal communications plan to provide adequate means for safe manual operation of the pipeline at least once each calendar year, at intervals not to exceed 15 months.

This procedural omission correlated with the lack of internal communication plan testing and verification activities. With the exception of NRG Ivanpah ER Drill Records, Tabletop Exercise, dated August 15, 2017, NRG could not provide evidence to demonstrate the testing and verification of any internal communication plan. Furthermore, statements from NRG Ivanpah's employees, who participated in the exercise on August 15, 2017, included "Control Room did not use emergency information sheet", "3 way communication lacking", "3 way was not used by control room" & "No 3 way communication".

9. § 192.635 Notification of potential rupture.

- (a) As used in this part, a “notification of potential rupture” refers to the notification of, or observation by, an operator (e.g., by or to its controller(s) in a control room, field personnel, nearby pipeline or utility personnel, the public, local responders, or public authorities) of one or more of the below indicia of a potential unintentional or uncontrolled release of a large volume of gas from a pipeline:**
- (1) An unanticipated or unexplained pressure loss outside of the pipeline's normal operating pressures, as defined in the operator's written procedures. The operator must establish in its written procedures that an unanticipated or unplanned pressure loss is outside of the pipeline's normal operating pressures when there is a pressure loss greater than 10 percent occurring within a time interval of 15 minutes or less, unless the operator has documented in its written procedures the operational need for a greater pressure-change threshold due to pipeline flow dynamics (including changes in operating pressure, flow rate, or volume), that are caused by fluctuations in gas demand, gas receipts, or gas deliveries; or**

NRG's O&M Manual failed to include procedures that define an unanticipated or unexplained pressure loss outside of the Ivanpah pipeline's normal operating pressures that would indicate a potential rupture. Specifically, while the O&M Manual, Section 19.10, Notification of Potential Rupture 192.635, page 173 of 225, contained language that included § 192.635(a)(1), this language was unclear as to what criteria was to be used in order to quantify a pressure-loss that indicates a potential rupture, stating in part "unless Ivanpah Solar has documented in its written

procedures the operational need for a greater pressure-change threshold..."

Therefore, NRG must amend its procedures to clearly state which quantifiable pressure-loss criteria, within Section 19.10, was intended to be utilized to demonstrate a potential rupture had occurred.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*.

Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

Following the receipt of this Notice, you have 30 days to submit written comments, revised procedures, or a request for a hearing under §190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue an Order Directing Amendment. If your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within **180** days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that NRG Energy Services maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Dustin Hubbard, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 5-2024-025-NOA** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Dustin Hubbard
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Enforcement Proceedings*

cc: PHP-60 Compliance Registry
PHP-500 M. Yeager, B. Brown (#23-265653)
PHP-500 Marion Garcia, Operations Supervisor, Western Region
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