

**BEFORE THE UNITED STATES  
FEDERAL ENERGY REGULATORY COMMISSION**

Arlington Storage Company LLC

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CP13-83

**PETITION FOR REHEARING OF GAS FREE SENECA OF ORDER GRANTING  
EXTENSION OF TIME FOR GALLERY 2 EXPANSION PROJECT**

Pursuant to Rule 713 of the Commission's Rules of Practice and Procedure, Gas Free Seneca, an intervenor in the above-captioned proceeding, hereby petitions for rehearing of the Commission Order Granting Extension of Time to the Arlington Storage Company, to complete construction and operation of the Gallery 2 Expansion Project and place the facility in service. *Arlington Storage Company*, Order Granting Extension of Time, 155 FERC ¶61,165 (May 16, 2016). Because the Commission did not consider critical safety concerns related to the project, as well as new information on safety that was not available when the certificate issued, the extension of time is not justified and the Commission should not permit Arlington to proceed until these issues are addressed.

**STATEMENT OF ISSUES**

- 1. Was the Commission Order arbitrary and capricious and lacking in substantial evidence when it granted Arlington Storage Company's request for an extension of time to construct and operate the Gateway 2 expansion project even though the Commission failed to consider the project's safety risks based on new information?**

Yes. The Commission has an obligation to ensure safe operation of pipeline projects, and to support its findings on safety with substantial evidence. *See Washington*

*Gas Light v. FERC*, 532 F.3d 928 (D.C. Cir. 2008) (remanding certificate order where Commission's finding that utility could assure safety of pipeline unsupported by evidence). In addition, the Commission is also required to address all objections raised in response to a proposed action. *PPL Wallingford Energy v. FERC*, 419 F. 3d 928 (D.C. Cir. 2008). Here, the Commission ignored compelling, new evidence of safety vulnerabilities related to the Arlington Storage Company's project, and in granting the two-year extension, the Commission cannot ensure the safety of the project.

**2. Did the Commission err in finding good cause for the grant of an extension?**

The Commission will grant an extension of the two-year in-service deadlines in the certificate order for good cause shown. Here, Arlington gave no reason for its failure to meet the deadline. The lack of permits by NY DEC does not justify the delay since there are other steps that Arlington could have taken to move the case forward but has not. Accordingly, the Commission's order granting an extension was arbitrary and capricious.

**OVERVIEW**

If the Project was completed as planned, the Gallery 2 caverns would have a total working gas capacity of approximately 0.55 billion cubic feet (Bcf), resulting in the Seneca Lake Project having a total working gas capacity of 2.00 Bcf and a total natural gas storage capacity of 3.09 Bcf. The Certificate Order required that the Gallery 2 Expansion Project facilities be constructed and made available for service within two

years, i.e., by May 15, 2016. On January 28, 2016, Arlington filed a request for a two-year extension of time to complete the Gallery 2 Expansion Project.

In its Order, FERC acknowledges receiving over 250 comments opposing the extension, many of which express concern that underground storage of natural gas, especially in salt caverns, is inherently dangerous. Among these, FERC acknowledges in particular the receipt of comments by Natalie J. Emlen on January 31, 2016 citing *Independent High-Level Quantitative Risk Analysis Schuylers County Compressed Natural Gas Storage*, D. Rob Mackenzie, M.D., August 25, 2014, <http://gasfreeseneca.com/wp-content/uploads/2016/04/Schuylers-NG-Storage-QRA-020915-1.pdf> (the “Independent QRA”).

FERC dismisses comments from Ms. Emlen and others that raise serious safety concerns by asserting that such comments constitute a collateral attack on the Certificate Order, in that they challenge the Commission’s findings regarding the potential safety risks of Arlington’s expansion project that were previously addressed in the environmental assessment (EA) for Arlington’s expansion project, the May 15, 2014 Certificate Order, and the Commission’s May 20, 2015 order that addressed Gas Free Seneca’s request for rehearing of staff’s notice that Arlington was cleared to commence construction. Notwithstanding its dismissal of Ms. Emlen’s and others’ safety concerns, FERC does address the independent QRA study she cites, describing it as a “generalized risk assessment of pipeline transportation and salt cavern storage” which

“provides no new information specific to the safety of Arlington’s project and facilities,” and asserts that it “does not alter or call into question the extensive findings in the September 2013 EA and Certificate Order, nor justify reconsideration of the findings in the underlying proceeding.”

## **ARGUMENT**

### **I. The Commission Did Not Guarantee the Safety of Project**

#### **A. The Commission did not consider the arguments related to safety raised by the comments.**

##### **1. Ms. Emlen’s arguments.**

FERC should not have dismissed Ms. Emlen’s and many of the other serious safety concerns, because they raise safety hazards that were not previously addressed in the EA or the subsequent Orders, nor referenced in FERC’s findings.

The safety analysis FERC conducted in its EA and reflected in its Orders may easily be summarized. According to FERC: (a) the local geologic hazards are minimal; (b) gas has been stored safely at the site for several decades; (c) periodic monitoring will be required; (d) the project will be operated according to regulations; and, therefore (e) protection for the public against accidents and failures is adequate.

However, a number of potential safety hazards were not specifically addressed or excluded by either the EA or the Orders. As examples, the EA and the Orders excluded or failed to address:

- Mechanical properties of salt rock and interlayers
- Unfavorable creep characteristics
- Low tensile strength of salt rock
- Easy dissolution of salt rock
- Low tensile strength of interlayers
- Creep rate difference between salt rock and interlayers
- Low shear resistance and interface cohesion
- Stratigraphic features
- Numerous interlayers
- In-situ stress state anisotropy
- Proximity to drinking water source
- Human errors

Admittedly, it is often impractical or prohibitively expensive to conduct specific fault tree analyses for some of these and other safety hazards. For this reason a quantitative risk analysis based on historical safety performance of the industry is ordinarily performed, as described for other petrochemical industry segments and as documented in the independent study Ms. Emlen cited. FERC, however, did neither a fault tree analysis nor a quantitative risk analysis, preferring to rely solely on local site history, mechanical integrity testing, and the assumption that adherence to regulation would be sufficient to assure public safety.

As the cited independent study demonstrates and as FERC does not contradict, the historical record clearly shows that the geologic assessment, monitoring and regulation it and state regulators routinely prescribe, have failed to prevent a very high rate of serious and extremely serious events at underground salt cavern storage facilities--including at least one event at a nearby site managed by the same parent

company. The same historical record also shows that many such events have occurred after years or even decades of facility operation, demonstrating that reliance on operational history from a single site is insufficient to assure safety. For these reasons the cited independent risk analysis very definitely calls into question the incomplete findings in the EA and Order.

Since commenters have raised serious safety concerns based in part on safety hazards that were not previously addressed in the EA or the Orders and that were not referenced in FERC's findings, such comments do not constitute a collateral attack, and should not have been dismissed by FERC.

## **2. New Information from quantitative risk analysis.**

The independent quantitative risk analysis provides new information specific to the safety of Arlington's project and facilities. FERC claims that the August 2014 quantitative risk analysis (QRA) of compressed natural gas storage operations "is actually a generalized risk assessment of pipeline transportation and salt cavern storage of compressed natural gas and provides no new information specific to the safety of Arlington's project and facilities....The report does not alter or call into question the extensive findings in the September 2013 EA and Certificate Order, nor justify reconsideration of the findings in the underlying proceeding."

Indeed, the independent QRA correctly proceeded from an industry-wide perspective to reach high-level, quantitative conclusions about the degree of risk

sustained by a typical salt cavern facility. In doing so it used methods, calculations and conclusions validated by peer-reviewed, published, scientific analysis which use similar historical databases, employ similar calculations, and reach similar conclusions about the frequency of adverse events. Even if the QRA had limited itself to such a generalized risk assessment, its sober conclusions would be enough to call into question the EA finding and justify reconsideration. FERC, by contrast, has provided no quantitative analysis of overall risk whatsoever to justify its findings.

However, the independent QRA then goes further to identify characteristics specific to Arlington's project which in the historical record have been associated with a higher risk level than that of the typical salt cavern, such as the presence of bedded salt formations and irregular cavern shapes. The QRA thereby reasonably concludes, in a manner consistent with such published studies, that the risk associated with Arlington's project may be somewhat higher than the calculated level. The QRA also presents in detail a concern that appears to be unique to this project, namely the possibility of increased salt brine infiltration related to the very close proximity of Arlington's site to a large lake that serves as the source of drinking water for 100,000 persons. Because there appear to be no pertinent historical experience with which to compare, the risk associated with such proximity cannot easily be dismissed. FERC fails to address this last concern in any substantive way.

FERC's EA and Order do comment extensively on a few seriously-debated geologic site characteristics, such as the significance of local faulting and seismicity. But FERC provides no sensitivity analysis to determine the relative contribution of those characteristics to overall risk. As the independent QRA points out, those specific factors have historically accounted for a relatively small amount of overall salt cavern storage risk, and even if they are eliminated a very high level of risk remains. FERC has also acknowledged the local presence of bedded salt formations and irregular cavern shapes. But FERC fails to contradict the QRA's finding that such features are associated with higher than usual levels of risk.

Because commenters cite an independent quantitative risk analysis that provides new information specific to the safety of Arlington's project and facilities, and because that analysis both alters and calls into serious question the findings of the EA and Orders, a reconsideration of FERC's findings in the underlying proceeding is justified.

**3. Reconsideration of FERC's prior findings is warranted by changes in condition of fact.**

Over the last two years the Pipeline and Hazardous Materials Safety Administration (PHMSA) has developed and provided Advanced Notice of Proposed Rulemaking (ANPRM) and recently, Notice of Proposed Rulemaking (NPRM) to revise the Pipeline Safety Regulations applicable to the safety of onshore gas transmission and gathering pipelines. Partly because of the wide range in scope and quality of present-



day risk analyses, PHMSA announced that it proposed to require that operators validate their risk models in light of incident, leak, and failure history and other historical information. It is exactly this sort of information which is contained in the independent analysis cited by Ms. Emlen but which is missing from FERC's incomplete safety assessment.

Since the publication of the ANPRM and the close of its comment period, Southern California Gas Company's (SoCal Gas) Aliso Canyon Natural Gas Storage Facility Well SS25 failed, causing a sustained and uncontrolled natural gas leak near Los Angeles, California. The failure, possibly from the downhole well casing, resulted in the relocation of more than 4,400 families according to the Aliso Canyon Incident Command briefing report issued on February 01, 2016. On January 6, 2016, California Governor Jerry Brown issued a proclamation declaring the Aliso Canyon incident a state of emergency. On February 5, 2016, PHMSA issued an advisory bulletin in the Federal Register (81 FR 6334) to remind all owners and operators of underground storage facilities used for the storage of natural gas to consider the overall integrity of the facilities to ensure the safety of the public and operating personnel and to protect the environment. The advisory bulletin specifically reminded these operators to review their operations and identify the potential of facility leaks and failures, review the operation of their shut-off and isolation systems, and maintain updated emergency plans.

In its ANPRM, PHMSA also requested comment on questions related to the regulation of underground gas storage facilities. However, because of the above changes of fact PHMSA announced that it will instead consider proposing a separate rulemaking to address the safety of underground natural gas storage facilities, to allow PHMSA to fully consider the impacts of incidents that have occurred since the close of the initial comment period. It will also allow the Agency to consider voluntary consensus standards that were developed after the close of the comment period for this ANPRM, and to solicit feedback from additional stakeholders and members of the public to inform the development of potential regulations. Because of the nationwide concern raised by these recent events, the Obama administration has announced the creation of the Interagency Task Force on Natural Gas Storage Safety to develop findings in support of federal regulation.

Finally, Congressional interest in the above and other related developments has lead to passage by both Senate (on March 3, 2016) and House of Representatives (on June 8, 2016) of the SAFE PIPES Act (Securing America's Future Energy: Protecting our Infrastructure of Pipelines and Enhancing Safety Act), which directs the Secretary of Transportation to issue new minimum uniform safety standards for underground natural gas storage facilities incorporating consensus standards for the operation, environmental protection, and integrity management of such facilities.

Even if there had been no new information provided by commenters on the safety risks of this project, these dramatic changes in condition of fact, heightened recognition of risk, and subsequent instruction for new regulation of underground gas storage call for reconsideration of FERC's prior findings including, at a minimum, the provision for and analysis of a risk model such as that provided by the cited independent QRA, which has been validated in the light of incident, leak, and failure history, as well as by other historical information pertaining to underground gas storage.

For the above reasons, the Commission failed to ensure the safety of the project and ignored arguments raised by intervenors. As such, the Commission's order cannot be sustained, and the Commission may not permit Arlington to proceed with construction or operation unless or until the extremely serious safety issues raised by commenters are satisfactorily addressed.

## **II. The Commission Lacked Good Cause to Grant the Extension.**

The Commission's grant of the extension is not supported by good cause. Arlington Storage has not made any efforts to move forward with the project - and in fact, if the extension is granted, there is no guarantee that Arlington Storage will have the ability to complete the project in this new time frame - particularly with the multiple safety issues that must be addressed. The lack of permits is not justification either because even without the permits, Arlington could have moved forward with other

aspects of the project, but has not. Because there is no good cause for granting the extension, the Commission must rescind its order.

WHEREFORE for the foregoing reasons, the Commission should vacate the order granting extension issued on May 16, 2016 and vacate the certificate granted to Arlington Storage due to its inability to comply with the terms of the certificate.

Respectfully submitted,



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Gas Free Seneca

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