

**BEFORE THE ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON**

In the Matter of the Application by)	
Northwest Natural Gas Co.)	Proposed Order
for Amendment No. 10 to its)	on Consolidation of the
Site Certificate for the Mist Underground)	Original Site Certificate and
Natural Gas Storage Facility)	Amendments 1 through 9

I. Introduction and Background

The Oregon Department of Energy (“ODOE” or “Department”) issues this proposed order in accordance with ORS 469.405 and OAR 345-027-0070. This order addresses a request by Northwest Natural Gas (NWN) for Amendment 10 of its site certificate for the Mist Underground Natural Gas Storage Facility located near Mist, Oregon, in Columbia County.

This proposed amendment involves no substantive changes to the facility, its operations, or the terms or conditions of the site certificate. The Oregon Energy Facility Siting Council (“EFSC” or “Council”) issued the site certificate on September 30, 1981 to the Oregon Natural Gas Development Corporation (“ONG”), a wholly owned subsidiary of NWN. The Council has since amended the site certificate nine times. Each amendment is a separate document.

NWN now proposes to consolidate the original 1981 site certificate and the nine previous amendments into one unified site certificate. The consolidated site certificate preserves all of the conditions and substantive requirements of the original and nine previous amendments. In some cases, redundant conditions have been eliminated and references to obsolete rules or statutes have been replaced by up to date references. Also, the original figures have been replaced with new maps using more up to date mapping methods. However, the consolidation does not result in any substantive changes to the facility or the site certificate.

The Department serves as staff to the Council. The Department worked together with NWN to draft this consolidation and recommends its approval.

In this order, all terms that are defined in OAR 345 Division 1 have the meaning assigned to them in that division unless stated otherwise. In particular, the term “site” means the approved site for the Mist storage facility, including the Miller compression station, the Bruer/Flora gas storage area that the Council approved in the original site certificate, and the Calvin Creek storage area that the Council approved in Amendment 4 in 1997.

II. Description of the Consolidated Site Certificate

A. Description of the Facility

The Mist underground storage facility provides NWN with a means of balancing relatively constant pipeline gas supplies with widely fluctuating market requirements. NWN injects gas into storage during off-peak periods and withdraws it when demand exceeds available supplies from other sources. Underground reservoir storage requires suitable underground geological conditions in a specific geographic area. These conditions occur in depleted oil or gas pools. NWN identified the Mist site as one such area in the late 1970's. The underground natural gas

storage operation consists of a natural gas production field, retrofitted to inject gas back into the ground and withdraw it on a cyclical basis.

In addition to the naturally occurring underground gas pools, the facility includes related and supporting surface facilities. Most of these are located at NWN's Miller Station, which includes compressors, piping, control, dehydration and auxiliary systems. Other surface facilities related to the underground gas storage include gathering lines and facilities for NWN maintenance and operations staff.

The Mist facility consists of the Bruer/Flora area and the Calvin Creek area. Bruer/Flora and the Miller compression station are located north of the Nehalem River in rural Columbia County, in parts of sections 2, 3, 4, 10 and 11 of Township 6 North, Range 5 West, Willamette Meridian. The Calvin Creek area, south of the Nehalem, was added in 1997 in Amendment 4. It is two and one-half miles south of Miller Station in parts of sections 21, 22, 23, 26 and 27. Twin 16-inch pipelines cross under the Nehalem River and connect the Calvin Creek area with Miller Station.

B. History of the Site Certificate

The proposed consolidation is organized so as to follow the history of the site certificate and its nine previous amendments. The original 1981 site certificate authorized construction and operation of the Bruer and Flora storage facilities, located north of the Nehalem River in Columbia County. The site certificate also authorized construction and operation of compression facilities at the Miller Compression Station, located within the footprint of the Bruer and Flora storage areas. The original site is shown on proposed Attachment 1 to the consolidated site certificate. Amendment 1, issued in October 1987, extended the deadline for construction and made minor modifications to other sections of the site certificate. Amendment 1 also created a vibration monitoring program to determine if there was any correlation between underground storage activities and earthquake-like events that may occur in the vicinity of the storage operations. Amendment 2, issued in August 1988, added a monitoring well. Amendment 3, issued in September 1990, allowed NWN to replace some injection/withdrawal wells. In 1990 ONG assigned the site certificate to its parent company, NWN.

Amendment 4, approved in July 1997, expanded the site boundary to include the Calvin Creek storage area, located south of the Nehalem River. This amendment included construction of two 16-inch pipelines that cross under the Nehalem River and connect the Calvin Creek storage area to the Miller compression station. Amendment 4 also authorized development of related and supporting surface facilities associated with new underground storage reservoirs in the Calvin Creek Storage Area, and upgrading of related and supporting surface facilities at Miller Station.

Amendment 5, approved in March 1998, made the current EFSC rules at OAR 345-027-0050 through 0080 applicable to the facility. These rules govern the process for site certificate amendments.

Amendment 6, approved in March 1999, allowed further storage development in the Calvin Creek area, on land within the site as previously enlarged by Amendment 4.

Amendment 7, approved in November 2000, increased the permitted daily throughput to 245 million cubic feet per day (mmcf/d). The amendment did not authorize construction of any new equipment or facilities, but it removed all operating restrictions on existing equipment. This

meant that any further increases in storage capacity or throughput would necessitate the installation of new facilities or equipment.

Amendment 8, issued in October 2001, increased the permitted throughput to 317 mmcf and authorized installation of a new compressor at Miller Station. The new compressors at Miller Station are operated by natural gas. The new compressor installed under Amendment 8 was the first one to be subject the Council's Carbon Dioxide standards at OAR 345 Division 24.

Amendment 9, issued in December 2003, allowed NWN to develop two new gas storage pools, the "Busch" and "Schlicker" pools, on land within the Calvin Creek site. Amendment 9 increased the permitted daily throughput from 317 mmcf to 515 mmcf. The increase did not require any new compressors but did require new dehydration equipment, gas quality and monitoring equipment, and interconnect piping. This equipment allows NWN to reach 425 mmcf during a compression cycle. Early in the withdrawal cycle, under peak demand conditions, NWN can reach 515 mmcf under free flow conditions (no compression).

Amendment 9 also ended the vibration monitoring program specified in Amendment 1. The Council allowed NWN to end this program because after 16 years of data collection, there was no correlation between storage activities and earthquake-like events.

C. EFSC Jurisdiction

In addition to the storage pools and compressors, the underground storage facility includes injection and monitoring wells, and a network of 6, 8 and 12-inch pipelines¹ that connect the various pools and wells to the compression station.

State law grants the Oregon Department of Geology (DOGAMI) broad authority "to regulate the underground storage of natural gas and the drilling and operation of any wells required therefor." ORS 520.095(16). DOGAMI has exercised this authority through the adoption of comprehensive rules governing underground storage facilities at OAR 632 Division 10.

When EFSC approved the Site Certificate for the Mist Site in 1981, its jurisdiction included the surface and underground components of the facility. In 1993, the siting law was amended to include within the Council's jurisdiction only the "surface facility related to an underground gas storage reservoir that, at design injection or withdrawal rates, will receive or deliver more than 50 million cubic feet of natural or synthetic gas per day, and require more than 4,000 horsepower of natural gas compression to operate ***." ORS 469.300(11)(a)(I).

Underground storage reservoirs, injection, withdrawal, and monitoring wells, and individual wellhead equipment remain under DOGAMI's pervasive authority over the wells and other subsurface components. ORS 469.300(11)(a)(I)(i)-(ii). EFSC retains authority over the surface facilities, including pipelines.

III. Amendment Process and Procedural History

The consolidation of the site certificate does not meet any of the criteria for a site certificate amendment listed at OAR 345-027-0050. Nonetheless, the Department and NWN agreed that the amendment process set forth at OAR 345-027-0060 and 0070 was an appropriate process for

¹ The 6, 8 and 12 inch pipelines are frequently referred to in the field as "gathering lines". However, in the consolidated site certificate they are simply referred to as pipelines.

the consolidation, because it provided a well proven process of public notice and comment, and produced a record of decision in a standardized format that would be clear and useful to future NWN and state personnel. Although there are no changes to the facility, the consolidation is considered Amendment 10 to the site certificate.

NWN and ODOE staff worked together to create the consolidated site certificate to ensure that it correctly captured all substantive requirements of the original site certificate and nine amendments. ODOE supported the consolidation because it brings the Mist site certificate into the same standard content and format as all other EFSC site certificates issued since 1990.

NWN submitted the application for Amendment 10 on March 24, 2008. The Department mailed notice of the application to the EFSC general mailing list, and the special mailing list that ODOE maintains for the Mist storage facility, including adjacent property owners. In the notice, ODOE requested public comments on the consolidation by April 15, 2008. ODOE standard practice has been to allow 30 days for comments on site certificate amendments. However, OAR 345-027-0070, which describes the amendment process, does not mandate a specific length of comment period. ODOE believes that a shorter comment period in this case is acceptable because there is no substantive change to the facility or the site certificate, and because the Proposed Order remains subject to the 30-day comment period mandated by OAR 345-027-0070.

ODOE also sent notice of the consolidation to the reviewing agencies listed in OAR 345-020-0040(1), and requested comments by April 15, 2008. Because of its short length, ODOE provided a link where reviewers could download the complete request for amendment and all attachments.

IV. Findings and Conclusions

A. Review of the Consolidated Site Certificate

As stated above, NWN and ODOE worked together to produce the consolidated site certificate. NWN and ODOE began the process of consolidating, restating, and amending the Site Certificate by adding Amendments 1-9 to the original Site Certificate. Except for correcting minor spelling and grammatical errors, NWN made no changes to the text at the consolidation stage. Efforts were made to account for duplicative conditions. For example, when identical conditions appeared in more than one amendment, NWN listed the condition once and noted that it applied to more than one amendment. (*See, e.g.*, Exhibit A at 14.)

In consolidating the site certificate, NWN and ODOE used the following approach:

Describe the Amendments

As explained above, prior to this Request for Amendment No. 10, the original Site Certificate was amended nine times. To preserve the history of the amendments, NWN added a section to the Site Certificate describing Amendments 1-9. This section describes, among other things, changes to the site boundary, changes to the facility, and increases in allowed throughput. (*See* Exhibit A at 2-4.)

Update the Site Descriptions

The underground storage reservoirs and the surface facilities related to the underground gas storage reservoirs have changed substantially since the original Site Certificate was approved by the Council in 1981. Accordingly, NWN updated the site descriptions to include the underground storage reservoirs and the surface facilities related to the underground gas storage reservoirs authorized in both the original Site Certificate and Amendments 1-9. The site descriptions therefore provide a precise picture of the Mist Site as of the filing of this Request for Amendment No. 10. (*See* Exhibit A at 4-5.)

Update the Site Maps

NWN created two new site maps to correspond with the updated site descriptions. One map depicts the Bruer/Flora storage area and a second map depicts the Calvin Creek storage area. These new site maps show the site boundaries, as well as the location of the underground storage reservoirs. Like the site descriptions, the site maps provide a precise depiction of the Mist Site as of the filing of this Request for Amendment No. 10. (*See* Exhibit A at Appendix 1, Appendix 2.) The updated maps are included as attachments to the Consolidated Site Certificate.

Update Citations to Statutes and Rules

NWN updated a number of citations to statutes and rules because the citations were no longer accurate or had been superseded by other laws or rules. For example, the original Site Certificate cited OAR 345 Division 100, a division that has since been repealed. Thus, to update the document, NWN removed the references to OAR 345 Division 100 and added references to current administrative rules. A matrix showing the statutory and regulatory citations that NWN updated is attached as Exhibit B to the Request for Amendment No. 10.

Remove Superseded Conditions

A number of general conditions in the original Site Certificate were superseded by specific conditions in Amendments 1-9. For example, the general condition related to the monitoring program in the original Site Certificate was superseded by specific conditions related to monitoring in Amendment 4. Accordingly, NWN removed the superseded conditions and noted that the conditions had been superseded by specific conditions in subsequent Amendments. (*See, e.g.*, Exhibit A at 8.)

Remove Conditions Related to Completed Actions

Numerous conditions in the original Site Certificate and Amendments 1-9 relate to construction-phase actions; therefore, NWN has fulfilled many of the listed conditions. Although NWN decided to retain some of the conditions related to completed actions because those conditions provide a good foundation for drafting future conditions, other conditions related to completed actions were deleted. For example, NWN removed the condition related to "Completeness of Construction," which stated that construction of the underground gas storage facility and related and supporting structures would be completed by August 31, 1987. (*See, e.g.*, Exhibit A at 6.)

