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BEFORE THE ENERGY FACILITY SITING COUNCIL
OF THE
STATE OF OREGON

IN THE MATTER OF THE REQUEST FOR)	
AMENDMENT #4 OF THE SITE CERTIFICATE)	FINAL ORDER ON
FOR THE SOUTH MIST PIPELINE EXTENSION)	AMENDMENT #4
)	

The Energy Facility Siting Council

July 27, 2007

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1

SOUTH MIST PIPELINE EXTENSION
AMENDMENT #4
FINAL ORDER

2

3 **I. INTRODUCTION**

4 The Energy Facility Siting Council (“EFSC” or “the Council”) issues this order in accordance with
5 ORS 469.405 and OAR 345-027-0070. This order addresses a request by Northwest Natural Gas (NWN)
6 for amendment of its site certificate for the South Mist Pipeline Extension (SMPE).
7

8 The Council issued the site certificate for the SMPE on March 13, 2003. The Council approved a
9 corridor 200 feet wide and approximately 62 miles long, and imposed conditions limiting the location of
10 the pipeline and construction activities within that 200-foot corridor.
11

12 The Council has amended the site certificate three times before. The first amendment, issued on
13 August 28, 2003, granted NWN additional workspace and access routes outside the 200 corridor, added
14 a new soil mitigation method to the Agricultural Mitigation Plan and reduced the minimum separation
15 between the pipeline and other underground structures from 24 inches to 12 inches. The second
16 amendment, issued on December 5, 2003, allowed NWN to change the diversion and discharge points
17 for water used in hydrostatic testing. The third amendment, issued on April 3, 2004, allowed additional
18 temporary workspace and pipeline realignments.
19

20 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this order.
21

22 **II. PROCEDURAL HISTORY**

23 NWN submitted the amendment request on April 23, 2007. The Oregon Department of Energy
24 (“ODOE” or “the Department”), serving as staff to EFSC, reviewed the request in accordance with OAR
25 345-027-0070. The Department sent copies of the request on April 30, 2007 to the agencies, local
26 governments and tribes listed in OAR 345-020-0040. The Department requested comments by May 31,
27 2007. The Department also sent notice to the Council’s mailing list, the mailing list for the SMPE, and
28 all property owners within 500 feet of the SMPE site, requesting public comments by May 31, 2007.
29

30 The Department received comments from Gary Hewitt of the Clackamas County Land Use
31 Department and Bill Burns of DOGAMI. The County’s comments are discussed in the analysis of the
32 Land Use standard, section IV.A.4 of this order. DOGAMI’s comments are discussed in the analysis of
33 the Structural Standard, section IV.A.2. The Department received no public comments.
34

35 On June 22, 2007, the Department issued a Proposed Order recommending that the amendment be
36 approved with conditions. The Department issued notice of the Proposed Order. The notice stated that
37 any person may, within 30 days of the date of this proposed order, ask the Council to hold a contested
38 case proceeding. The notice explained that the Council would determine whether a contested case
39 proceeding was justified and that if no one requested a contested case or if the Council determined that
40 no contested case was justified, the Council would decide whether to grant the amendment at its next
41 scheduled meeting. The deadline to comment on the Proposed Order or to request a contested case was
42 July 23, 2007.
43

1 No one commented on the Proposed Order or requested a contested case by July 23, 2007.
2 Therefore, the Council considered the request for amendment at its meeting in The Dalles, Oregon on
3 July 27, 2007.
4

5 In reviewing the proposed amendment, the Council considers whether the changes to the facility
6 comply with all Council standards (OAR 345-027-0070). The Council applies the applicable substantive
7 land use criteria in effect on the date NWN submitted the amendment request and all other state statutes,
8 administrative rules and local ordinances in effect on the date the Council makes its decision.
9

10 **III. DESCRIPTION OF THE PROPOSED AMENDMENT**

11

12 **A. Description of the Facility**

13 The SMPE is a 24-inch diameter natural gas transmission pipeline, approximately 62 miles in length.
14 For construction, the site certificate included a construction corridor 200 feet wide. The corridor at its
15 northernmost point begins at a NWN valve station (the “Bacona Blowdown Station”) near the
16 Washington-Columbia county border. It travels south through Dairy Creek Valley, and proceeds south
17 and east along mostly rural roads and property lines just west of North Plains, Hillsboro, Sherwood and
18 Wilsonville, crossing the Willamette River at a point near Graham Road in Clackamas County. South of
19 the Willamette River the corridor proceeds south and east along rural roads and property lines until its
20 southernmost point at the Williams Company’s Molalla Gate Station near the intersection of Barnards
21 and Dryland roads.
22

23 The site certificate allowed NWN to construct the pipeline anywhere within the 200 foot corridor,
24 subject to certain limitations in the Exclusive Farm Use (EFU) zone. The Council imposed conditions
25 limiting the permanent easements that NWN can acquire to 40 feet and limiting the width of temporary
26 construction easements to 80 feet. Where the corridor in the EFU zone includes public road right-of-
27 way (RROW), the Council imposed conditions limiting permanent, private easements outside the public
28 RROW to 20 feet, and limiting temporary construction easements outside the public RROW to 50 feet.
29 Along certain roads the site certificate limits the pipeline location to the public RROW.
30

31 At the end of construction, the site certificate defines the site of the facility as the 40 foot wide
32 permanent right of way, except at its northern end and southern end, where it is wider.
33

34 At its northern end, the facility includes the Bacona Blowdown Station, a valve station that includes
35 isolation valves for safety and control. At the southern end, the site includes the Molalla Gate Station, a
36 50 foot by 100 foot fenced area where the SMPE connects with the Northwest Pipeline (NWP), an
37 interstate gas pipeline operated by Williams Co. and regulated by the Federal Energy Regulatory
38 Commission (FERC). NWN and NWP each own and control distinct parcels within the fenced area.
39

40 **B. Changes to the Facility Proposed by NWN**

41 NWN requests two changes in amendment 4:

- 42
- 43 1) Installation of two compressors and ancillary equipment at Molalla Gate Station, to
44 increase throughput between the SMPE and the interstate pipeline system, and
- 45 2) Condition 7 in the Structural Standard section of the site certificate currently requires
46 installation and monitoring of vertical and horizontal inclinometers at the Sherman Mill

1 Side Area, at the north end of Dairy Creek Valley. NWN requests that the requirement
2 for horizontal inclinometers be removed. The requirement for vertical inclinometers
3 would remain.

4 In connection with the equipment installation at Molalla Gate Station, NWN also requests temporary
5 staging and lay down area across South Barnards Road from the Gate Station, in a location used by the
6 farmer for seasonal tree loading and mobilization. The area is shown in Exhibit 10 of the request.
7
8

9 **IV. FINDINGS ON COMPLIANCE WITH STANDARDS**

10 To issue the amendment, the Council must find that the proposed change to the facility complies
11 with Council standards at OAR 345 Divisions 22 and 24, and with applicable rules or statutes of other
12 agencies. The only requirement of state agencies other than EFSC that would be affected by this
13 amendment is the Department of Environmental Quality's Noise standard at OAR 340-035-0035.
14

15 **A. Council Standards in OAR Chapter 345 Division 22**

16 17 **1. Organizational Expertise OAR 345-022-0010**

18 *(1) To issue a site certificate, the Council must find that the applicant has the organizational*
19 *expertise to construct, operate and retire the proposed facility in compliance with Council standards*
20 *and conditions of the site certificate. To conclude that the applicant has this expertise, the Council*
21 *must find that the applicant has demonstrated the ability to design, construct and operate the proposed*
22 *facility in compliance with site certificate conditions and in a manner that protects public health and*
23 *safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The*
24 *Council may consider the applicant's experience, the applicant's access to technical expertise and the*
25 *applicant's past performance in constructing, operating and retiring other facilities, including, but not*
26 *limited to, the number and severity of regulatory citations issued to the applicant.*

27 *(2) The Council may base its findings under section (1) on a rebuttable presumption that an*
28 *applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or*
29 *ISO 14000 certified program and proposes to design, construct and operate the facility according to*
30 *that program.*

31 *(3) If the applicant does not itself obtain a state or local government permit or approval for*
32 *which the Council would ordinarily determine compliance but instead relies on a permit or approval*
33 *issued to a third party, the Council, to issue a site certificate, must find that the third party has, or has*
34 *a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or*
35 *has a reasonable likelihood of entering into, a contractual or other arrangement with the third party*
36 *for access to the resource or service secured by that permit or approval.*

37 *(4) If the applicant relies on a permit or approval issued to a third party and the third party does*
38 *not have the necessary permit or approval at the time the Council issues the site certificate, the*
39 *Council may issue the site certificate subject to the condition that the certificate holder shall not*
40 *commence construction or operation as appropriate until the third party has obtained the necessary*
41 *permit or approval and the applicant has a contract or other arrangement for access to the resource*
42 *or service secured by that permit or approval.*

1 **Discussion**

2
3 This amendment does not change NWN’s organization or personnel. Nor does it alter the scope of
4 the facility in a way that might require additional expertise or experience. Therefore the Council’s
5 findings of compliance with this standard in the final order approving the site certificate and the orders
6 approving amendments 1 and 2 apply here as well. Sections (3) and (4) of the standard do not apply
7 because no third party permits are involved.

8 **Conclusion**

9
10 The Council finds that the proposed amendment complies with the Organization Expertise Standard.
11 No changes to conditions are required.

12 **2. Structural Standard OAR 345-022-0020**

13 To issue the amendment, the Council must find that:

14 *(a) The applicant, through appropriate site-specific study, has adequately characterized the*
15 *site as to Maximum Considered Earthquake Ground Motion identified at International Building*
16 *Code (2003 edition) Section 1615 and maximum probable ground motion, taking into account*
17 *ground failure and amplification for the site specific soil profile under the maximum credible and*
18 *maximum probable seismic events; and*

19 *(b) The applicant can design, engineer, and construct the facility to avoid dangers to human*
20 *safety presented by seismic hazards affecting the site that are expected to result from maximum*
21 *probable ground motion events. As used in this rule "seismic hazard" includes ground shaking,*
22 *ground failure, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement,*
23 *and subsidence;*

24 *(c) The applicant, through appropriate site-specific study, has adequately characterized the*
25 *potential geological and soils hazards of the site and its vicinity that could, in the absence of a*
26 *seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed*
27 *facility; and*

28 *(d) The applicant can design, engineer and construct the facility to avoid dangers to human*
29 *safety presented by the hazards identified in subsection (c).*

30
31 **Discussion**

32 In its Final Order approving the SMPE, the Council found that the SMPE satisfies the Structural
33 Standard. (See Final Order, at 11-15; Attachment C, at 9-18.) Installation of additional compressors
34 and other equipment at Molalla Gate Station does not affect any of the Council’s findings in that
35 order.¹

36 Regarding the proposed compressors at Molalla Gate Station, NWN submitted a geotechnical report
37 for the installation of the compression equipment. The report includes detailed civil engineering
38 recommendations for the installation, which NWN stated that it will accept. The Department
39 recommends a condition that installation of the new compressors shall be substantially in accordance
40 with the engineering recommendations of Exhibit 11 of the request for amendment 4.
41

¹ On May 11, 2007, the Council modified OAR 345-022-0020. NWN’s amendment request was submitted before this rule change. However, this review took into account the new standard as well as the old.

1 Regarding the removal of horizontal inclinometers at the Sherman Mill Slide Area, NWN submitted
2 a report from consultant URS, describing results from the inclinometers since the fall of 2004, when
3 there were installed. URS concluded that the inclinometers are unlikely to produce useful data and the
4 vertical inclinometers are a better indicator of pipe stress. They recommended that NWN abandon the
5 horizontal inclinometers and rely on the vertical ones.
6

7 In a June 12, 2007 email, Bill Burns of DOGAMI agreed, stating that “***The horizontal
8 inclinometers were probably not such a great idea in the first place. However, as long as they are going
9 to continue monitoring of the vertical inclinometers, I think it is fine to stop monitoring the horizontal
10 ones. They should follow the proper procedure for well abandonment, etc.”
11

12 The Water Resources Department (WRD) regulations for well abandonment are at OAR 690-240.
13 NWN states that it would use a tremie pipe to pump grout into the bottom of the casing, and would
14 extract the pipe as the casing is filled. If necessary under WRD regulations, the contractor will be
15 bonded by WRD. Department recommends a condition requiring that abandonment of the horizontal
16 inclinometers meet WRD regulations at OAR 690-240.
17

18 NWN provided additional information from the vendor of the inclinometer regarding the difficulty
19 of successful installation. The vendor stated that:²
20

21 “...the best installation method is to install the casing in an open trench...when the casing is
22 installed in a horizontal borehole it is difficult to control the verticality of the two monitoring
23 grooves. In many cases it is impossible...The most common technique is to use buoyancy...the
24 above technique, even in ideal circumstances, should not be used in borehole deeper than 100 ft...”
25

26 Based on the opinion from DOGAMI and the information from the vendor, the Department
27 recommends that the Council approve the requested condition change, with the following conditions:
28

29 Installation of compressors at Molalla Gate Station shall be substantially in accordance with the
30 engineering recommendations of Exhibit 11 in the Request for Amendment 4.
31

32 Any abandonment of horizontal inclinometers shall meet Water Resources Department regulations at
33 OAR Chapter 690 Division 240.
34

35 **Conclusion**

36

37 With the above conditions added to the site certificate, the Council finds that the proposed
38 amendment complies with the Structural standard.
39

40 **3. Soil Standard OAR 345-022-0022**

41 To issue the proposed amendment, the Council must find that

42 ****the design, construction and operation of the facility, taking into account mitigation, are not likely*
43 *to result in a significant adverse impact to soils including, but not limited to, erosion and chemical*
44 *factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical*
45 *spills.*

² Letter from Simon Cornwallace, DGSI to Trevor Hoyle, GeoEngineers, June 19, 2007

1 In approving the site certificate, the Council found that the SMPE meets the Soil Standard based on
2 mitigation described in the ASC and the Agricultural Impact Mitigation Plan (AIMP).

3
4 The installation of new equipment at Molalla Gate station does not change the findings in the Order
5 approving the site certificate. The gate station is a fenced and graveled yard. In its geotechnical report,
6 Exhibit 11 of the amendment request, NWN’s consultant made detailed civil engineering specifications,
7 including measures that will prevent or control erosion. NWN states it will accept those
8 recommendations. The condition added in the Structural Standard analysis, section IV.A.2 of this order,
9 is sufficient to ensure that NWN follows these recommendations..

10
11 In approving amendment 3 to the SMPE site certificate, the Council added new condition (6) under
12 “Special Conditions for Temporary Laydown Area” proposed by NWN, stating that the conditions
13 imposed on temporary laydown area apply to the easements depicted in Exhibits 2,3 and 4 of the
14 Application for Amendment 3. The Department recommends that a similar condition be added:

15
16 Conditions (1) through (4) under “Special Conditions for Temporary Laydown Area” shall apply to
17 the temporary use of parking and laydown area on the South side of Barnards Road across from the
18 Molalla Gate Station.

19
20 A new condition added under the Structural Standard, section IV.A.2 of this order, would require
21 NWN to comply with WRD regulations at OAR 690-240 for abandoning the horizontal inclinometers.
22 That condition is sufficient to preclude adverse impacts to soils due to removal of the inclinometers.

23 24 **Conclusion**

25
26 The Council adds a condition to ensure that conditions for soil restoration will apply to the
27 temporary laydown area south of Barnards Road. With this condition, the Council finds that the
28 proposed amendment complies with the Soil Protection Standard.

29 30 **4. Land Use Standard OAR 345-0222-0030**

31
32 To issue a site certificate, the Council must find that:

33 *(1)*** the proposed facility complies with the statewide planning goals adopted by the Land*
34 *Conservation and Development Commission.*

35 *The Council shall find that a proposed facility complies with section (1) if:*

36 ***

37 *(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and the Council*
38 *determines that:*

39 *(A) The proposed facility complies with applicable substantive criteria as described in section*
40 *(3) and the facility complies with any Land Conservation and Development Commission administrative*
41 *rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3)****
42

43 **a. Inclinometer Removal and Compressor Installation**

44 The condition requiring the horizontal inclinometer was not a land use condition, and its removal
45 does not affect any applicable land use criteria.

46
47 The Molalla Gate station and the temporary lay down area south of Barnards Road are in Clackamas
48 County. The gate station is a fenced and graveled area within the Exclusive Farm Use (EFU) zone. It

1 was included in the site in the original site certificate. No expansion of the gate station footprint is
2 proposed. The new equipment proposed in the request for amendment 4 is for the same use as the
3 existing equipment. The request for amendment does not propose any use that is new or different from
4 the “utility facility necessary for public service” for which the site certificate was originally granted.
5

6 In a May 15, 2007 letter to Adam Bless of ODOE, Gary Hewitt, Clackamas County Planning
7 Department, noted that section 1206 (Nonconforming Uses) of the zoning and development code is
8 applicable to the proposed addition of equipment at Molalla Gate Station. He stated that:
9

10 “The expansion of this nonconforming use is a regulated land use review under both the ORS and
11 our County ZDO. The expansion does not have any greater adverse impact on the neighborhood
12 than the existing use, structures and/or physical improvements. The nonconforming status of the site
13 has been verified by staff and finds the use was established prior to first restrictive zoning,
14 September 24, 1976. As our 1976 aerial photo show, the facility existed as or before the date of first
15 zoning. Since the site is enclosed and all expansion is within the boundaries of the facility, there
16 would be no imposition of other conditions necessary by the county.”
17

18 The Council finds that the proposed inclinometer removal and installation of new equipment at the
19 Molalla Gate Station comply with the applicable land use criteria of Clackamas County.
20

21 **b. Temporary Workspace on Barnards Road**

22 The request for amendment 4 proposes a temporary lay down and parking area on the south side of
23 Barnards Road, across from the gate station. An aerial photograph of the proposed temporary laydown
24 area is shown in Exhibit 10 of the request for amendment 4.
25

26 The proposed temporary construction area is an existing hardened surface area used for transport of
27 Christmas trees from the adjacent tree farm. Rather than an easement, NW Natural has negotiated a
28 temporary rental or license agreement to allow this use at a time when the landowner will not need to
29 use the area for annual Christmas tree operations. Unlike most other temporary construction easements
30 approved for the SMPE, the proposed temporary construction area will not involve any material change
31 in the use of the property, even on a temporary basis.
32

33 In the Site Certificate, the Council approved all temporary construction phase laydown, parking and
34 assembly uses as inherent parts of the Facility. This was done because the Project required both
35 temporary and permanent easements and construction areas, planned and permitted as part of the Project
36 (and not as separate temporary uses). These temporary construction areas were situated both within and
37 outside the 200-foot corridor approved in the Site Certificate.
38

39 Current Use of Workspace Area: The area proposed for temporary construction phase workspace is
40 a rock pad area, zoned EFU in Clackamas County’s zoning ordinance, but not used for agricultural crop
41 cultivation and production. The pad consists of compacted ¾-inch gravel on the surface, with pit run
42 below grade. The pad is essentially designed for industrial use-type loading, parking and laydown uses.
43 The current use of the rock pad is a helicopter pad and staging area for Christmas trees, grown on
44 adjacent agricultural properties. The use is seasonal.
45

46 NW Natural’s Use of the Workspace Area: NWN’s temporary construction phase work will not
47 conflict with the owner’s use. NWN proposes to use this area for parking and/or storage of equipment
48 and limited pipe laydown and assembly. NWN will not need to alter the pad in any way. NW Natural

1 will not disturb soils. Consequently, NWN will not impact any archeological or cultural sites or
2 environmentally sensitive areas. Given the fact that the NW N’s short term use will not require any
3 modification of this hardened loading area, no environmental studies are needed for the site.
4

5 Consideration of the temporary workspace as part of the SMPE is consistent with the Land Use
6 analysis for the original SMPE and subsequent amendments #1 and #3. In the application for site
7 certificate, Exhibit K, at K-2, describes the facility, including the following applicable to temporary
8 construction areas:
9

10 “The pipeline construction process will require the use of workspace, pipe storage, and
11 construction staging areas which in some cases are proposed outside the 200-foot corridor
12 described in the Council's Project Order and outside the Preferred Corridor. All of these
13 proposed areas are part of the proposed Project. Final locations will be determined during the
14 final engineering phase, in consultation with landowners. * * *”
15

16 Exhibit K, at K-39, provides an analysis regarding “construction areas.” The following excerpt is
17 applicable to this Application:
18

19 “In addition to the bore pad and laydown areas, the Project will require temporary pipe storage
20 and staging areas along the Preferred Corridor. These areas will typically be within the 200-foot
21 Preferred Corridor. NW Natural will take reasonable steps to locate construction areas outside of
22 the 200-foot Preferred Corridor on properties where temporary impacts to resource, farm, and
23 forestry areas will be minimized. The final locations of the construction phase storage and
24 staging areas have not been fully determined. NW Natural proposes to finalize these locations
25 during the final engineering phase of the Project, in consultation with land owners.”
26

27 Construction areas are uses an inherent and necessary element of to pipeline construction and use,
28 and as such are an element of the Facility. Pages K-42 – K-43 from the original application for site
29 certificate provide the following analysis:
30

31 “3. Construction Areas—Uses Accessory to Pipeline Construction and Use

32 As discussed above, during the construction phase of the Project, NW Natural will need pipeline
33 and equipment storage areas and other construction staging areas at many locations within the
34 Preferred Corridor. The locations for construction areas will be identified as the pipeline enters
35 final engineering design phase. In addition to the work spaces needed for the HDD bores, the
36 Project will likely include approximately 17 staging areas and two pipe storage areas. The
37 identified pipe storage areas are expected to total approximately 5.5 acres. The proposed staging
38 areas will occupy between one and five acres each, likely occupying a total of approximately
39 19.5 acres. These areas will be located along the pipeline route to assist with nearby construction
40 activities. Most staging areas will be in use for approximately 30 to 60 days; however, some
41 staging areas will be utilized for the duration of the Project.
42

43 In addition, NW Natural will need approximately 13 extra work-space areas during construction
44 of the pipeline, near areas where the width of the construction area is constricted due to the
45 presence of buildings, trees, or other obstructions. The temporary work-space areas will likely
46 total approximately 21.5 acres. These work-space areas will be within or adjacent to the 200-
47 foot Preferred Corridor, and will be within the one-half mile analysis area. Construction of the
48 pipeline would be impossible without these storage and staging areas.

1
2 Finally, the pipeline includes both below-ground and aboveground isolation control valve
3 stations, installed for pipeline safety and maintenance purposes. Final locations for the below
4 ground valve stations have not been determined. Eleven isolation valve sites are proposed, with
5 three above ground, occupying approximately 30 by 30 feet of space. (See Figure K-7 for
6 location of the aboveground isolation valves.) All valve sites will be within the 200-foot
7 Preferred Corridor. (See Agricultural Assessment, Appendix K-9.)
8

9 OAR 345-001-0010(49) defines "site" as follows:

10
11 "[A]ll land upon which a facility is located or proposed to be located.
12 'Energy facility site' means all land upon which an energy facility is
13 located or proposed to be located. 'Related and supporting facilities site'
14 means all land upon which related or supporting facilities for an energy
15 facility are located or proposed to be located."
16

17 The temporary construction storage, staging, and work-place areas are part of the Project through
18 the construction phase. These construction phase activities are necessary, temporary uses,
19 accessory to, and inherently a component of the pipeline Project, but they will not be a part of the
20 permanent facility site. Accordingly, the discussions of applicable substantive criteria and
21 Project compliance with ORS 215.275 do not separately analyze construction storage, staging,
22 and work-space areas."
23

24 Site Certificate "Mandatory Condition 7": As noted in the material above, the ASC considered all
25 temporary workspace areas for the SMPE to be an inherent, necessary "part of the project," not requiring
26 separate analysis as a different or separate land use. In adopting the Site Certificate for the SMPE
27 (March 13, 2003), the Siting Council concurred with NW Natural's characterization and analysis of
28 temporary workspace areas, and as applicable here, imposed Mandatory Condition #7 (Site Certificate at
29 p. 10) to address unforeseen workspace needs for construction of the pipeline and all related or
30 supporting facilities:
31

32 "7) The construction easement shall be limited to 80 feet, except where a narrower or wider
33 construction corridor is required by conditions related to individual Council standards. NWN
34 may deviate from this maximum construction easement width if such deviations are authorized
35 by the OOE. To obtain authorization from OOE for a deviation in easement width, NWN must
36 provide OOE with the following information: 1) the location of the requested deviation; 2) the
37 reason(s) for the deviation and any documentation necessary to demonstrate such reasons; 3) the
38 proposed easement width; and 4) measures that NWN will implement to mitigate additional
39 impacts, if any, on resources protected by Council standards.
40

41 In determining whether to approve the requested deviation, OOE shall provide a landowner with
42 the opportunity to comment on the requested easement and on mitigation and minimization
43 measures. OOE shall approve the requested deviation if it determines:
44

- 45 i . A landowner has granted a wider easement to accommodate topsoil removal and OOE concurs
46 that the wider easement is necessary to accommodate additional topsoil removal;
47 ii. A deviation in easement width is necessary to comply with other site certificate conditions;

- 1 iii. A deviation in easement width is required to meet federal pipeline safety standards or OPUC
2 or OSHA safety standards;
3 iv. A deviation in easement width is necessary to accommodate:
4 a) Laydown and workspace areas for HDD, slick bore, prefabrication and pipe forming
5 areas;
6 b) Staging areas for wetland, stream and road crossings and hydrostatic testing
7 withdrawal and discharge areas;
8 c) Temporary construction parking and pipe and construction material storage; or
9 d) Topsoil and subsoil storage areas for side slope or excess trench depth; or
10 e) Access to the pipeline construction easements; or³
11 v . A deviation in easement width is necessary to avoid irrigation infrastructure, existing utilities,
12 or other structures; and
13 vi. NWN will implement mitigation measures as consistent with state law and this site certificate
14 to mitigate or minimize any additional impacts to resources protected by Council Standards.
15

16 The laydown area proposed in amendment 4 is consistent with criterion iv.(c) above, because it is
17 temporary construction parking and construction material storage.⁴
18

19 **c. Compliance with ORS 215.275**
20

21 In its request for new parking and laydown areas in the Request for Amendment #3, NW Natural
22 held that since because NW Natural was not proposing a new use in EFU zones, it was not appropriate
23 to conduct a new analysis under ORS 215.275.
24

25 NW Natural argued that the Council’s decision approving the SMPE Site Certificate was upheld by
26 the Oregon Supreme Court in Friends of Parrett Mountain v. Northwest Natural Gas Company, 336 Or
27 93, 79 P3d 869 (2003). In particular, the Court agreed with the Council that NW Natural was not
28 required to evaluate roads and highways located in the Exclusive Farm Use zone “as non-EFU
29 anomalies that each require separate analysis under ORS 215.275(2),” *id.* at 111, and that NW Natural
30 was not required to evaluate siting alternatives on a property-by-property basis:
31

32 “[O]ne component comprises the facility at issue: the proposed pipeline. *
33 * * [T]he pipeline contains no obvious dividing points marked by separate
34 physical structures and therefore affords no occasion to consider whether
35 distinct physical structures might require distinct justifications under ORS
36 215.275(2). * * * The council did not err in refusing to require a property-
37 by-property analysis of the pipeline under ORS 215.275(2).” *Id.* at 109.

38 NWN concluded that the Council was not required to consider alternatives for the site-specific
39 construction area request because the Council had already determined that the SMPE must be sited in
40 the EFU zone. This analysis would extend to the Molalla Gate Station and the necessary construction
41 parking and laydown area directly across the roadway from the Molalla Gate Station. However, in
42 reviewing the request for amendment #3, the Council elected to consider each requested laydown area

³ Item (e) was added in response to Application for Site Certificate Amendment No. 1.

⁴ Mandatory Condition 7 implies that ODOE could approve the temporary workspace outside of the amendment, because this condition provides a mechanism for ODOE to approve “on the spot” uses of temporary workspace on short notice and outside the amendment process. Nonetheless, this land use analysis is submitted for Council review as part of amendment 4.

1 individually for compliance with the “necessary” test of ORS 215.275. The Council found that each
2 laydown area was necessary for one or more of the reasons listed in ORS 215.275(2).
3

4 For the laydown area on Barnards Road requested in Amendment 4, NW Natural’s engineers and
5 construction contractor have determined that construction of the improvements needed at Molalla Gate
6 Station is not feasible from a technical or engineering standpoint without the additional construction area
7 described above. The Council concurs. Under ORS 215.275(2), technical and engineering feasibility is
8 a factor that justifies the use of EFU land. The use is also locationally dependent because the staging
9 area must be close to the gate station where the compressor installation will occur.
10

11 Clackamas County concurs with this analysis. In the letter of May 15, 2007 from Gary Hewitt to
12 Adam Bless, the County stated that:
13

14 “As to the use of a portion of Exclusive Farm Use (EFU) zoned property as a temporary
15 construction site staging area, this falls under ORS 215.275(2)(a), Technical and engineering
16 feasibility. To improve the facility there must be use of nearby temporary storage, parking and
17 other such uses as to construct the facility to the ‘necessary’ standards.”
18

19 Impact on farming and conditions to minimize and mitigate under ORS 215.275(4) and (5)
20

21 ORS 215.275(4) and (5) require measures to restore farm land and to impose clear and objective
22 conditions to mitigate and minimize the impact on farm lands. Conditions imposed on temporary
23 laydown and staging areas in the original site certificate and amendments 1 through 3 ensure restoration
24 of the temporary areas to their preconstruction use.
25

26 In this case, NW Natural has minimized and mitigated impact on farming by proposing temporary
27 laydown that is already gravel and is used by the farmer for parking and tree loading.
28

29 Nonetheless, for temporary workspaces, the Council imposed special conditions in the site
30 certificate, and extended them to amendments #1 and #3. Conditions that mitigate and minimize impact
31 on farm lands would remain in the site certificate under amendment #4 . In particular, the Agricultural
32 Impact Mitigation Plan (AIMP) and the “special conditions (1) through (4) for temporary laydown area”
33 would apply to this amendment.
34

35 In summary, the impacts on farm operations from this amendment are less than those analyzed in the
36 Final Order Approving the Site Certificate and the Orders approving amendments 1 through 3. No new
37 or different conditions are required.
38

39 **Conclusion**
40

41 NW Natural has proposed, and the Department recommends, the following condition:
42

43 *14. Temporary construction area allowed under Amendment #4. Notwithstanding General Land*
44 *Use Conditions 3, 5 and 6, the temporary construction parking and laydown area described and*
45 *shown in Exhibit 10 to Application for Amendment No. 4 to the site certificate area is authorized.*
46 *[amendment 4]*
47

1 With this condition, the Council finds that the proposed removal of horizontal inclinometers,
2 installation of additional equipment within the existing Molalla Gate Station and temporary use of the
3 cleared area on the south side of Barnards Road across from the gate station meet the Council's Land
4 Use Standard.
5

6 **5. Protected Area Standard OAR 345-022-0040**

7 To approve the amendment, the Council must find that "...the design, construction and operation
8 of the facility are not likely to result in significant adverse impact ..." to listed protected areas.
9

10 **Discussion**

11
12 The SMPE crosses one listed area, the Willamette River Greenway. The Council found that the
13 crossing was permitted under OAR 345-022-0040(2). The amendment is not near the Willamette river
14 crossing. No other protected areas are affected.
15

16 **Conclusion**

17
18 The Council finds that the proposed amendment complies with the Protected Area standard. No
19 additional conditions are required.
20

21 **6. Financial Assurance and Retirement Standards OAR 345-022-0050**

22 To issue the amendment, the Council must find that:
23

24 *(1) The site, taking into account mitigation, can be restored adequately to a useful, non-*
25 *hazardous condition following permanent cessation of construction or operation of the facility.*

26 *(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form*
27 *and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.*
28

29 **Discussion**

30
31 In its Final Order approving the ASC, the Council found that the SMPE as a whole complied with
32 the standard. In August of 2003, NWN provided the Council with the bond required by OAR 345-027-
33 0020(8) in the amount of \$700,000 in 2001 dollars.
34

35 Amendment #4 will not change the overall scope of the SMPE. The need for temporary access and
36 laydown area was contemplated in the original ASC. The only new property involved is the temporary
37 laydown area on Barnards Road across from the Molalla Gate Station. The laydown area is currently
38 used by the farmer for loading and parking, and will be returned in a condition suitable for that use after
39 construction. There is no reason why the equipment installation or the temporary laydown area would
40 increase the cost of site restoration or NWN's financial ability to adequately restore the site.
41

42 **Conclusion**

43
44 The proposed amendment does not affect NWN's ability to meet Financial Assurance and
45 Retirement standard, or the conditions associated with it. The Council finds that the proposed
46 amendment meets the standard. No additional conditions are required.

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7. Fish and Wildlife Habitat Standard OAR 345-022-0060

To issue the amendment, the Council must find that:

*“***the design, construction and operation of the facility, taking into account mitigation, are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000.”*

Discussion

In its Final Order approving the ASC, the Council found that the SMPE met the standard based on habitat studies and NWN’s Conceptual Mitigation Plan. Upon completion of construction, NWN submitted its Final Mitigation Plan as required by the site certificate. The Department reviewed the Final Mitigation plan and found that it complied with all conditions in the site certificate.

Conclusion

The only new land potentially affected by amendment #4 is the temporary laydown area near the Molalla Gate Station. The gate station is a graveled and fenced yard which will contain all of the new equipment. The proposed laydown area is a cleared area currently used by the tree farmer for seasonal tree loading. It will be returned in a condition suitable for its current use after construction. Therefore, the Council finds that amendment #4 complies with the Fish and Wildlife Habitat Standard. No new conditions are required.

8. Threatened and Endangered Species Standard OAR 345-022-0070

To issue the amendment, the Council must find that:

“(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:

(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or

(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction, operation and retirement of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.”

Discussion

In its Final Order approving the Application for Site Certificate, the Council found that the SMPE was not likely to adversely affect the survival or recovery of any species listed as threatened or endangered.

1
2 As discussed under the Council’s Fish and Wildlife Habitat Standard, the removal of the horizontal
3 inclinometers is a modification to the existing pipeline. The installation of new compression equipment
4 will occur within the Molalla Gate Station, a fenced and graveled yard. The proposed laydown is
5 currently a cleared area used by the farmer for seasonal tree loading. Therefore, the modifications
6 proposed in the request for Amendment #4 are not likely to affect any listed species.
7

8 **Conclusion**

9
10 The Council finds that the proposed amendment complies with its Threatened and Endangered
11 Species standard. No additional conditions are required.
12

13 **9. Scenic and Aesthetic Values Standard OAR 345-022-0080**

14 To issue the amendment, the Council must find that:

15 *“(1) *** the design, construction and operation of the facility, taking into account*
16 *mitigation, are not likely to result in significant adverse impact to scenic resources and*
17 *values identified as significant or important in local land use plans, tribal land management*
18 *plans and federal land management plans for any lands located within the analysis area*
19 *described in the project order.*

20 **Discussion**

21
22 In the Final Order on the ASC, the Council found that the SMPE would not adversely affect scenic
23 and aesthetic resources because the pipeline would be underground, except for a the relatively small
24 visual impact from valves required by operational consideration and 49 CFR 192 safety regulations.
25 The removal of horizontal inclinometers will not have any visual impacts. The proposed compressors
26 and ancillary equipment will be contained within the Molalla Gate Station, a fenced and graveled yard
27 that already contains pipes, valves and other equipment similar to what NWN proposes to add. The
28 proposed temporary laydown area is currently a cleared area used for seasonal tree loading, and will be
29 returned to the farmer in a condition suitable for its current use.
30

31 **Conclusion**

32
33 The Council finds that the proposed amendment complies with its Scenic and Aesthetic Values
34 standard. No additional conditions are required.
35

36 **10. Historic, Cultural and Archeological Resources Standard OAR 345-022-0090**

37 To issue the amendment, the Council must find that:

38
39 *“*** the construction and operation of the facility, taking into account mitigation, are not*
40 *likely to result in significant adverse impacts to:*

41 *(a) Historic, cultural or archaeological resources that have been listed on, or would*
42 *likely be listed on the National Register of Historic Places;*

43 *(b) For a facility on private land, archaeological objects, as defined in ORS*
44 *358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*

45 *(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).”*

1 **Discussion**

2
3 In its Final Order approving the site certificate, the Council found that the SMPE met the standard
4 based on an archeological survey of the corridor and conditions requiring steps to prevent damage to
5 cultural resources. The site certificate requires NWN to have an archeologist present at identified
6 archeological sites.
7

8 The compressors and ancillary equipment will be installed within the existing Molalla Gate Station
9 and will not result in additional ground disturbance. The temporary staging area across Barnards Road
10 will be used for parking and lay down, but NWN does not propose any ground disturbing activities.
11 Similarly, the abandonment of the horizontal inclinometer will not disturb new ground. Given the lack
12 of ground disturbance, the proposed changes would not negatively impact any historic, cultural or
13 archeological resources.
14

15 **Conclusion**

16
17 The Council finds that existing conditions are sufficient to ensure compliance with the Historic,
18 Cultural and Archeological Standard. No new conditions are required.
19

20 **11. Recreational Standard OAR 345-022-0100**

21 To issue the amendment, the Council must find that:

22
23 *“***the design, construction and operation of a facility, taking into account mitigation, are*
24 *not likely to result in a significant adverse impact to important recreational opportunities in*
25 *the analysis area as described in the project order. The Council shall consider the following*
26 *factors in judging the importance of a recreational opportunity:*

- 27 (a) *Any special designation or management of the location;*
- 28 (b) *The degree of demand;*
- 29 (c) *Outstanding or unusual qualities;*
- 30 (d) *Availability or rareness;*
- 31 (e) *Irreplaceability or irretrievability of the opportunity.”*

32 **Discussion**

33
34
35 In its Final Order on the ASC, the Council found that the SMPE would not adversely affect any
36 important recreational opportunity in the analysis area. The ASC included an inventory of important
37 recreational opportunities within the analysis area. The Council did not impose any conditions.
38

39 The Molalla Gate Station is not near any recreational opportunities described in the ASC. The
40 nearest important recreational opportunity is many miles from the Molalla Gate Station and would not
41 be affected by it. The removal of the horizontal inclinometer would not result in any impacts to
42 recreational opportunities.
43

44 **Conclusion**

1 The Council finds that amendment #4 complies with its Recreational Standard. No new conditions
2 are required.
3

4 **12. Public Services Standard OAR 345-022-0010**

5 To issue the amendment, the Council must find that:

6 *“*** the construction and operation of the facility, taking into account mitigation, are not*
7 *likely to result in significant adverse impact to the ability of public and private providers*
8 *within the analysis area described in the project order to provide: sewers and sewage*
9 *treatment, water, storm water drainage, solid waste management, housing, traffic safety,*
10 *police and fire protection, health care and schools.”*

11
12 **Discussion**
13

14 In its Final Order on the ASC, the Council found that the SMPE complies with the standard based on
15 letters from local fire departments, police departments and other public services providers stating that
16 they expected no adverse impact on their ability to provide the services. The Council imposed
17 conditions to address the impact on traffic and traffic safety, ensure that construction along roads does
18 not affect police, fire and ambulance service, and coordinate with school districts and county road
19 departments.
20

21 The proposed addition of compressors and ancillary equipment would only affect the Molalla Gate
22 Station, a fenced and graveled yard. The use of a cleared area across the road for parking, storage and
23 laydown will not adversely affect traffic on local roads and in fact would reduce the impact on traffic
24 safety by ensuring that parking and equipment storage is off the road. No other public service would be
25 affected. The removal of horizontal inclinometers will have no effect on any of the public services listed
26 in this standard.

27 **Conclusion**
28

29 The Council finds that the proposed amendment meets its Public Services standard. No additional
30 conditions are required.
31

32 **13. Waste Minimization Standard OAR 345-022-0120**

33 To issue the amendment, the Council must find that:

34
35 *“***(a) The applicant’s solid waste and wastewater plans are likely to minimize*
36 *generation of solid waste and wastewater in the construction and operation of the facility,*
37 *and when solid waste or wastewater is generated, to result in recycling and reuse of such*
38 *wastes;*

39 *(b) The applicant’s plans to manage the accumulation, storage, disposal and*
40 *transportation of waste generated by the construction and operation of the facility are likely*
41 *to result in minimal adverse impact on surrounding and adjacent areas.”*

42
43 **Discussion**
44

1 In the Site Certificate, the Council imposed conditions governing the handling and recycling of solid
2 waste, disposal of water from hydrostatic testing and minimizing the use of water for pressure testing by
3 recycling. These conditions apply to construction activities wherever they occur, including the
4 temporary laydown area under this proposed amendment. Therefore this amendment would have no
5 effect on NWN's compliance with this standard or the conditions imposed under it.
6

7 **Conclusion**

8
9 The Council finds that the proposed amendment meets its Waste Minimization standard. No
10 additional conditions are required.
11

12 **B. Public Health and Safety ORS 469.401(2)**

13
14 In the Site Certificate, the Council imposed conditions affecting construction practices, design, and
15 surveillance using best practical technologies. These conditions continue to apply, and are not affected
16 by the installation of new equipment, the removal of horizontal inclinometers or the use of temporary
17 lay down area. The compression equipment at Molalla Gate Station is under OPUC jurisdiction for
18 compliance with US Department of Transportation safety regulations. No changes to any safety related
19 conditions are proposed. Therefore the amendment has no effect on findings in the Final Order on the
20 ASC regarding public health and safety.
21

22 **C. Carbon Dioxide Standard for Non Generating Facilities, OAR 345-024-0620**

23 Quotations of the rules have been shortened for brevity. To issue a site certificate for a nongenerating
24 energy facility that emits carbon dioxide, the Council must find that the net carbon dioxide emissions
25 rate of the proposed facility does not exceed 0.504 pounds of carbon dioxide per horsepower hour. The
26 Council shall determine whether the carbon dioxide emissions standard is met as follows:
27

28 *(1) The Council shall determine the gross carbon dioxide emissions that are reasonably likely to*
29 *result from the operation of the proposed energy facility. The Council shall base such determination on*
30 *the proposed design of the energy facility. In determining gross carbon dioxide emissions for a*
31 *nongenerating facility, the Council shall calculate carbon dioxide emissions for a 30-year period unless*
32 *the applicant requests, and the Council adopts in the site certificate, a different period. ****

33 *(2) For any remaining emissions reduction necessary to meet the applicable standard, the applicant*
34 *may elect to use any of the means described in OAR 345-024-0630, or any combination thereof. ****

35 *(4) Before beginning construction, the certificate holder shall notify the Department of Energy in*
36 *writing of its final selection of an equipment manufacturer and shall submit a written design information*
37 *report to the Department sufficient to verify the facility's designed rate of fuel use and its nominal*
38 *capacity for each fuel type. In the site certificate, the Council may specify other information to be*
39 *included in the report. The Department shall use the information the certificate holder provides in the*
40 *report as the basis for calculating, according to the site certificate, the amount of carbon dioxide*
41 *emissions reductions the certificate holder must provide under OAR 345-024-0630;*

42 *(5) In the site certificate, the Council shall specify the schedule by which the certificate holder shall*
43 *provide carbon dioxide emission offsets. In the schedule, the Council shall specify the amount and*
44 *timing of offsets the certificate holder must provide to a carbon dioxide emissions offset credit account.*
45 *In determining the amount and timing of offsets, the Council may consider the estimate of total offsets*
46 *that may be required for the facility and the minimum amount of offsets needed for effective offset*
47 *projects. The Department shall maintain the record of the offset credit account.*

1 **Discussion**

2
3 In its amendment request, NWN proposes to install two refurbished compressors at Molalla Gate
4 Station. The compressors will be used to bring the gas up to Northwest Pipeline (NWP) system pressure
5 on the occasions when NWN will back deliver gas into the NWP system. To determine the excess
6 carbon dioxide emissions likely to result from operation of the facility, the Council must consider:

- 7 1) the likely annual hours of operation,
8 2) the likely annual fuel use by the compressors, and
9 3) horsepower of the compressors under expected average annual conditions.

10
11 NWN specified that it will install two refurbished Solar MK-II turbine driven compressors. Each
12 has rated horsepower of 1100 Hp.

13
14 Hours of Operation. The purpose of the compressor installation is to back-deliver natural gas from the
15 NWN system to the Northwest Pipeline. NWN estimates that it will use the compressors for this
16 purpose approximately 32 days per year, during annual cycle.

17
18 NWN developed a flow model to estimate the horsepower needed during a typical annual flow cycle.
19 The results are shown in Exhibit 14 of the amendment request. NWN states that this estimate includes
20 an assumed operational increase of 25 percent in future years.

21
22 Fuel Use and Carbon Dioxide Emissions:

23 NWN provided the following specifications for the performance of the compressors:

24
25 Rated horsepower: 1100 Hp (per compressor, total of 2200 for the pair)

26 Estimated hours of operation: 32 days per year, equals 768 hours per year

27 Fuel consumption: 24,192 MMBtu/year (total for both units, includes an assumed 25 %
28 contingency factor for increased operations in the future)

29
30 Using this information, NWN calculated the expected carbon dioxide emissions and compared them to
31 the emissions allowed under the standard:

32
33 Expected Emissions over 30 years:

34
35 $24,192 \text{ MMBtu/year} \times 117 \text{ lb.CO}_2\text{/MMBtu} \times 1/2000 \text{ tons/lb.} = 1415.23 \text{ tons/year CO}_2$

36
37 $1415.23 \text{ tons/year} \times 30 \text{ years} = 42,456 \text{ tons CO}_2 \text{ over 30 years (projected)}$

38
39 Allowed emissions over 30 years under the standard:

40
41 $2200 \text{ Hp} \times 768 \text{ hours} = 1,689,600 \text{ hp-hrs/year}$

42
43 $\text{Add } 25 \% \text{ contingency for increased operations} = 2,112,000 \text{ hp-hrs/year}$

44
45 $2,112,000 \text{ hp-hrs/year} \times 30 \text{ years} = 63,360,000 \text{ hp-hrs over 30 years}$

46
47 $63,360,000 \times .504 \text{ lb.CO}_2\text{/hp-hr} \times 1/2000 \text{ tons/lb.} = 15,967 \text{ tons}$

1
2 Excess tons CO2 over 30 years (including 25% contingency for increased operations):
3

4 42,456 tons projected – 15,967 tons allowed = 26,489 tons excess
5

6 ODOE staff performed this calculation independently and concurs. Therefore, NWN must provide
7 offsets for 26,489 tons of carbon dioxide.
8

9 **Means of Compliance for Nongenerating Energy Facilities, OAR 345-024-0630**

10 NWN proposes to comply with the standard by providing offset funds to the Oregon Climate Trust,
11 under OAR 345-024-0630(2):
12

13 *(2) Providing offset funds, directly or through a third party, in an amount deemed sufficient to*
14 *produce the reduction in carbon dioxide emissions necessary to meet the applicable carbon dioxide*
15 *emissions standard according to the schedule set forth pursuant to OAR 345-024-0620(5). The applicant*
16 *or third party shall use the funds as specified in OAR 345-024-0710. The Council shall deem the*
17 *payment of the monetary offset rate[\$1.27], pursuant to OAR 345-024-0580, to result in a reduction of*
18 *one ton of carbon dioxide emissions. The Council shall determine the offset funds using the monetary*
19 *offset rate and the level of emissions reduction required to meet the applicable standard. If the Council*
20 *issues a site certificate based on this section, the Council may not adjust the amount of the offset funds*
21 *based on the actual performance of offsets;*

22 *(4) Each year after beginning commercial operation, the certificate holder shall report to the*
23 *Department of Energy data showing the amount and type of fossil fuels used by the facility and its*
24 *horsepower-hours of operation. The Council shall specify in the site certificate how the Department*
25 *shall use those data to calculate the gross carbon dioxide emissions from the facility during the report*
26 *year and the net emissions in excess of the carbon dioxide emissions standard. The Department shall*
27 *then subtract excess emissions from the carbon dioxide emissions offset credit account. The Council*
28 *shall specify in the site certificate the minimum amount of carbon dioxide offset credits that a certificate*
29 *holder shall provide to establish the offset credit account. The Council may specify an amount of offset*
30 *credits equal to the total offsets required for the facility. The Council shall specify the minimum amount*
31 *of carbon dioxide offset credits that a certificate holder must maintain in the account and the minimum*
32 *amount of carbon dioxide offset credits the certificate holder shall provide to replenish the account. The*
33 *Department shall notify the certificate holder when it must replenish its offset credit account according*
34 *to the conditions in the site certificate. The certificate holder shall maintain a positive balance in the*
35 *offset credit account for 30 years, unless the Council specifies a different period in the site certificate;*

36 *(5) If the certificate holder is replenishing its offset credit account by meeting the monetary path*
37 *payment requirement described in OAR 345-024-710, the certificate holder may replenish its offset*
38 *credit account without amending the site certificate by using the calculation methodology detailed in*
39 *conditions that the Council adopts in the site certificate;*
40

41 **Discussion**
42

43 In its amendment request, NWN estimated the required monetary path at \$22,516. ODOE calculates
44 a higher figure for two reasons:
45

46 On May 11, 2007, the Council adopted a new monetary path rate of \$1.27 per ton, a 50% increase
47 over the rate applicable when NWN submitted this request. The new rate applies to this amendment.
48

1 The estimate in the request for amendment 4 also does not address contracting and selection funds.
2 However, in amendment 8 to the Mist Storage Facility site certificate, the Council required a payment
3 equal to 20% of the offset payment for contracting and selection funds. Because the monetary path
4 requirement for SMPE Amendment 4 is similar in size to the payment for Mist Storage Facility
5 amendment 8, the Department recommends that the Council follow the precedent set for the Mist
6 facility, and require a payment for contracting and selecting funds equal to 20% of the offset payment.
7

8 Taking into account the current monetary path rate, and the recommended rate for contracting and
9 selecting funds, ODOE recommends that the monetary path requirement is as follows:

10
11 26,489 excess tons CO₂ x \$1.27/ton = \$33,641 in second quarter 2007 dollars

12
13 20% addition for contracting and selecting = \$6,728

14
15 Total Monetary Path payment = \$40,369

16
17 Section (4) of this rule addresses future offsets that may be required, based on the actual operation of
18 the new compressor over 30 years.

19
20 NWN proposes to make a single payment, without the need for future adjustments. However, in
21 amendment 8 of the Mist Underground Storage Facility the Council required an annual report of actual
22 compressor operations and provided for an annual calculation of remaining offsets, with provisions to
23 replenish the account if the balance falls below a preset minimum. This process is now codified in rule
24 at OAR 345-024-0630(4) and (5). Therefore, for Amendment 4 to the SMPE site certificate, ODOE
25 recommends that the Council adopt conditions similar to those in the Mist Storage Facility Site
26 Certificate. These conditions call for an annual report of actual operations, calculation of the remaining
27 offset balance, and replenishing the fund if the balance falls below a minimum.
28

29 Provisions to replenish account

30 In Amendment 8 to the Mist site certificate, the Council adopted a condition that sets the minimum
31 balance in the offset credit account at 2,000 tons. It also adopted a condition that specifies that NWN
32 shall replenish the offset credit account based on the average of its excess emissions during the prior
33 three years times the number of years remaining in the deemed 30-year life of the facility. Finally, the
34 Council adopted a condition that requires NWN, within 30 days of notification, to replenish the offset
35 credit account for the full amount of estimated offset required for excess emissions during the remaining
36 life of the facility.
37

38 NWN has proposed to make a single payment, without adjusting the offset account in the future. AS
39 noted above, Council rule OAR 345-024-0630 requires provisions for maintaining an offset balance, and
40 replenishing the account when the balance reaches a certain minimum.
41

42 On May 11, 2007, the Council amended OAR 345-024-0580, setting the monetary offset rate at
43 \$1.27 per ton of carbon dioxide. Also, OAR 345-024-0710 requires the Council to use the cost of
44 capital most recently approved by a state utility regulatory commission in determining the monetary path
45 rate for replenishing the offset account under OAR 345-024-0630(4) and (5). Both the monetary path
46 rate and the Public Utility Commission's (PUC) most recently approved rate of return for NW Natural
47 have changed since amendment 8 to the site certificate for the Mist Underground Storage Facility.
48

1 Therefore, the Council will adopt conditions for SMPE Amendment 4 similar to those in Mist
2 Underground Storage Facility Amendment 8, with the current values for monetary path rate and PUC-
3 approved rate of return.
4

5 **Monetary Path Payment Requirement, OAR 345-024-0710**

6 *(1) If the applicant elects to meet the applicable carbon dioxide emissions standard in whole or in*
7 *part under *** OAR 345-024-0630(2), (4) and (5), the applicant shall provide a bond or comparable*
8 *security in a form reasonably acceptable to the Council to ensure the payment of the offset funds and the*
9 *additional funds required under section (4). The applicant shall provide such security by the date*
10 *specified in the site certificate. In the site certificate, the Council shall specify a date no later than the*
11 *commencement of construction of the facility for base load gas plants and non-base load power plants.*
12 *For nongenerating facilities, the Council shall specify a date no later than the commencement of*
13 *construction of the facility for providing the initial bond or comparable security, and the Council shall*
14 *specify conditions for providing subsequent incremental payments to meeting the monetary path*
15 *payment requirement. The certificate holder for a nongenerating facility must meet its incremental*
16 *monetary path payment requirements before exhausting its offset credit account, as described in OAR*
17 *345-024-0630(4). In no case shall the applicant diminish the bond or comparable security or receive a*
18 *refund from a qualified organization based on the calculations of the facility's emissions on a new and*
19 *clean basis for a fossil-fueled power plant or any other measure for a nongenerating energy facility. A*
20 *qualified organization shall not refund any offset funds to a certificate holder based on the operation or*
21 *performance of a non-base load power plant during any five-year period reported under OAR 345-024-*
22 *0590(5) or, for a nongenerating facility, on any offset credits the certificate holder provided under OAR*
23 *345-024-0620(5).*

24 *(2) In the site certificate, the Council shall require the certificate holder to disburse the offset funds*
25 *and other funds required as specified in sections (3) and (4), unless the Council finds that no qualified*
26 *organization exists, in which case the Council shall require the certificate holder to disburse the offset*
27 *funds as specified in OAR 345-024-0720(2).*

28 *(3) When the certificate holder receives written notice from the qualified organization certifying that*
29 *the qualified organization is contractually obligated to pay any funds to implement offsets using the*
30 *offset funds, the certificate holder shall make the requested amount available to the qualified*
31 *organization unless the total of the amount requested and any amounts previously requested exceeds the*
32 *offset funds, in which case the certificate holder shall make available only the remaining amount of the*
33 *offset funds. The qualified organization shall use at least 80 percent of the offset funds for contracts to*
34 *implement offsets. The qualified organization may use up to 20 percent of the offset funds for*
35 *monitoring, evaluation, administration and enforcement of contracts to implement offsets.*

36 *(4) At the request of the qualified organization and in addition to the offset funds, the certificate*
37 *holder shall pay the qualified organization an amount equal to 10 percent of the first \$500,000 of the*
38 *offset funds and 4.286 percent of any offset funds in excess of \$500,000. The certificate holder for a base*
39 *load gas plant shall pay not less than \$50,000, unless the Council specifies a lesser amount in the site*
40 *certificate. In the site certificate, the Council may specify a minimum amount that other fossil-fueled*
41 *power plants or nongenerating energy facilities must pay. This payment compensates the qualified*
42 *organization for its costs of selecting offsets and contracting for the implementation of offsets.*

43 *(5) Notwithstanding any provision to the contrary, a certificate holder subject to this rule has no*
44 *obligation with regard to offsets, the offset funds or the funds required by section (4) other than to make*
45 *available to the qualified organization the total amount required under *** OAR 345-024-0630(2), (4)*
46 *and (5), and section (4) of this rule. The Council shall not base a revocation of the site certificate or any*
47 *other enforcement action with respect to the certificate holder on any nonperformance, negligence or*
48 *misconduct by the qualified organization.*

1 (6) For monetary path payments a certificate holder must make before beginning construction, the
2 certificate holder shall make all offset fund payments and all payments required by section (4) to the
3 qualifying organization in real dollars of the year in which the Council issues a final order applying the
4 carbon dioxide emissions standard to the energy facility. In the site certificate, the Council shall specify
5 an appropriate inflation index for calculating real dollars. For a non-base load power plant, if a
6 certificate holder must make a payment as described in OAR 345-024-0600(4), the certificate holder
7 shall make a payment that has the same present value per ton of carbon dioxide as the monetary path
8 offset rate of the year in which the Council issued the final order applying the carbon dioxide standard.
9 In the site certificate, the Council shall specify the methodology for calculating present value. If the
10 certificate holder of a nongenerating facility must make payments as described in OAR 345-024-0630(4)
11 and (5), the Council shall specify in the site certificate the method for calculating the rate for the dollar
12 value per ton of carbon dioxide offsets required according to subsection (a) or (b) below:

13 (a) Unless the applicant and the Council agree to the methodology in subsection (b), the
14 certificate holder shall make payments that have the same present value per ton of carbon dioxide as the
15 monetary path offset rate of the year in which the Council issued the final order applying the carbon
16 dioxide standard. The Council shall set an appropriate discount rate for calculating the present value,
17 using the cost of capital most recently approved by a state utility regulatory commission for that utility
18 or a similar utility as a guide; or

19 (b) If the applicant requests and the Council agrees, the certificate holder shall make payments
20 at the monetary path offset rate in effect on the date the certificate holder makes the payment.

21 Discussion

22
23
24 NWN proposes to meet its monetary path payment requirement by providing cash to The Climate
25 Trust for the full amount prior to beginning construction. Therefore, there is no need for a bond or
26 comparable security (section 1) to secure the offset funds during the period between beginning
27 construction and The Climate Trust requesting offset funds, pursuant to section (3). ODOE recommends
28 that the Council adopt a condition that requires NWN to make a full cash payment of the monetary path
29 payment requirement to The Climate Trust prior to beginning construction. ODOE also recommends
30 that the Council adopt conditions similar to those in amendment 8 of the Mist storage facility, requiring
31 NWN to replenish the offset account and establishing the process for doing so.

32
33 OAR 345-024-0710(6) provides two alternatives for calculating the present value of a ton of carbon
34 dioxide if the certificate holder must replenish its offset credit account. NWN did not propose to use
35 sub-section (b), which would apply future monetary offset rates. The most recent rate of return
36 approved by the Oregon PUC is 8.62%, as approved in Order 03-507 in Docket UG 152, Northwest
37 Natural's most recent general rate case.⁵

38 Recommended Conditions for the Carbon Dioxide Standard

39 (1) Immediately upon execution of this Site Certificate Amendment 4 authorizing the compressor
40 described in NWN's Request for Amendment 4 ("new compressors"), NWN shall report to Energy
41 Facility Siting Council ("Council") the design and operating parameters of the new compressor, as
42 specified in sub-sections (a) through (c).

43
44
45 (a) NWN shall confirm in writing that the compressor to be installed is the same model and has the
46 same heat rate and fuel use as is described in the request for Amendment 4.

⁵ Email from Ed Busch, OPUC to Phil Carver, ODOE, June 14, 2007

1
2 (b) If a different compressor will be installed, NWN shall provide the make and model of the
3 compressor and shall provide manufacturer’s specifications for heat rate in BTU/hp-hr. at the
4 average hours when the compressor is expected to be used.

5
6 (c) NWN shall specify the estimated annual average hours that it reasonably expects to operate the
7 new compressor.

8
9 (2) NWN shall submit all monetary path payment requirement calculations to the Department of
10 Energy (“ODOE”) for verification in a timely manner prior to making payments to The Climate
11 Trust. NWN shall use the contracted design parameters for nominal capacity and heat rate of the
12 new compressor, along with the estimated annual hours of operation, that it reports pursuant to
13 Condition 1 to calculate the estimated monetary path payment requirement. For the purposes of this
14 site certificate, the "monetary path payment requirement" means the offset funds determined
15 pursuant to OAR 345-024-0630 and the selection and contracting funds that NWN must disburse to
16 The Climate Trust, as the qualified organization, pursuant to OAR 345-024-0710 and this site
17 certificate.

18
19 (a) The net carbon dioxide emissions rate for the new compressor shall not exceed 0.504 pounds of
20 carbon dioxide per horsepower hour.

21
22 (b) The offset fund rate for the monetary path payment requirement shall be \$1.27 per ton of carbon
23 dioxide (in 2007 dollars). For the initial monetary path payment that NWN must make prior to
24 beginning construction, the calculation of 2007 dollars shall be made using the US Gross Domestic
25 Product Implicit Price Deflator, as published by the US Department of Commerce, Bureau of
26 Economic Analysis, or any successor agency ("the index"). The amount of the payment requirement
27 shall increase annually by the percentage increase in the index and shall be pro-rated within the year
28 to the date of disbursement to The Climate Trust from June 30, 2007. If at any time the index is no
29 longer published, the Council shall select a comparable calculation of 2007 dollars.

30
31 (c) NWN shall offset excess carbon dioxide emissions using the monetary path as described in OAR
32 345-024-0710 and this site certificate. Contracting and selecting funds shall equal twenty (20)
33 percent of the value of any offset funds.

34
35 (3) Immediately upon execution of this Site Certificate Amendment 4, NWN shall pay cash to The
36 Climate Trust in the full amount of the monetary path payment requirement (in 2007 dollars) as
37 determined by the calculations set forth in Condition 2.

38
39 (4) ODOE shall set up an “offset credit account” for the SMPE compressor described in this
40 Amendment 4. ODOE shall credit the account shall with the total carbon dioxide offsets for which
41 NWN has provided offset funds to The Climate Trust, pursuant to Condition 3.

42
43 (5) Each year after beginning commercial operation of the new compressor (“annual carbon dioxide
44 reporting period”), NWN shall report to ODOE the annual hours the new compressor operated and
45 its fuel use in Btu. NWN shall provide the annual report to the Department within 30 days of the
46 anniversary date of beginning commercial operation of the new compressor. NWN may submit this
47 report in the report of operating hours and fuel use for the compressor at Miller Station required by
48 Amendment 8 to the Mist Underground Storage Facility site certificate.

1
2 (a) The Department shall calculate the excess carbon dioxide emissions during each annual carbon
3 dioxide reporting period and subtract those emissions from the offset credit account annually.

4
5 (b) If the offset credit account contains fewer than 2,000 tons of carbon dioxide offset credits, NWN
6 shall replenish the offset credit account. NWN shall replenish the offset credit account equivalent to
7 the full amount of the estimated future excess emissions. The Department shall estimate excess
8 emissions for the remaining period of the deemed 30-year life of the facility, based on the average
9 annual excess carbon dioxide emissions in the prior three years. The Department shall calculate the
10 estimated future excess emissions of the new compressor and notify NWN of the amount of payment
11 required, using the monetary path, to replenish the offset credit account.

12
13 (c) Notwithstanding the index identified in Condition 2(b), pursuant to OAR 345-024-0710(6)(a) the
14 formula to calculate the rate for the dollar value per ton of carbon dioxide offsets by which NWN
15 shall replenish its offset credit account through the monetary path shall be \$01.27 times (1.0862 to
16 the power "t"); where "t" is the elapsed time in years between October 26, 2001, and the date the
17 Department notifies NWN that it must replenish its offset credit account, pursuant of OAR 345-024-
18 0630(4). Fractional years shall be calculated by dividing the number of elapsed days in excess of a
19 whole year by 365.

20
21 (d) The Department shall calculate additional contracting and selection funds pursuant to Condition
22 2(c).

23
24 (e) NWN shall disburse in cash the additional monetary path payment requirement to replenish the
25 offset credit account to The Climate Trust within 30 days after notification by the Department of the
26 amount that NWN owes.

27
28 (6) The new gas turbine compressor shall be fueled solely with pipeline quality natural gas or with
29 synthetic gas with carbon content per million Btu no greater than pipeline quality natural gas. The
30 Department shall use a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel to
31 calculate carbon dioxide emissions.

32 33 **Conclusion**

34
35 With the above conditions, the Council finds that the new compressors at Molalla Gate Station meet
36 the carbon dioxide standard for nongenerating facilities.

37 38 39 **D. Noise Standards at OAR 340 Division 35**

40 The Department of Environmental Quality (DEQ) *Noise Control Regulations for Industry and*
41 *Commerce* apply to the noise generated by the compressors at Molalla Gate Station. Under the DEQ
42 noise control regulations, the compressors would be considered a “new industrial or commercial noise
43 source.” The Molalla Gate Station has been in continuous operation since the installation of the
44 Northwest Pipeline (NWP), and is considered a “previously used industrial or commercial site.” The
45 applicable DEQ regulation is OAR 340-035-0035(1)(b)(A). It requires that:

46
47 *(b) New Noise Sources:*

1 (A) *New Sources Located on Previously Used Sites. No person owning or controlling a new*
2 *industrial or commercial noise source located on a previously used industrial or commercial site*
3 *shall cause or permit the operation of that noise source if the statistical noise levels generated by*
4 *that new source and measured at an appropriate measurement point, specified in subsection (3)(b)*
5 *of this rule, exceed the levels specified in **Table 8**, except as otherwise provided in these rules*
6

7 **Discussion**

8

9 The DEQ noise criteria that apply to a new noise source located on a “previously used industrial or
10 commercial site” are presented in Table 8 of the DEQ noise regulation. Table 8 establishes the
11 maximum hourly statistical noise levels that may radiate from a new noise source to a “noise sensitive
12 receiver” such as a residence, church, school, or hospital. The criteria limit the maximum hourly L₅₀, L₁₀
13 and L₀₁ noise levels radiating to a noise sensitive receiver from a commercial or industrial noise source
14 to 55, 60 and 75 dBA respectively between 7 a.m. and 10 p.m. and 50, 55, and 60 dBA respectively
15 between 10 p.m. and 7 a.m. The hourly L₅₀, L₁₀ and L₀₁ noise levels are defined as the noise level
16 equaled or exceeded 50 percent, 10 percent and 1 percent of the hour, respectively.
17

18 Note: For site that are not previously used, DEQ also requires that the new noise source not
19 increase the ambient hourly L₁₀ or statistical noise levels at a noise sensitive receiver by more
20 than 10 dBA. This criterion is intended to prevent large increases in background noise levels at a
21 receiver, and it is often referred to as the "ambient noise degradation rule." However, this rule
22 does not apply to Molalla Gate Station because it is a previously used site.
23

24 Because the noise radiating from the facility will tend to be relatively constant throughout an hour,
25 and because the hourly L₅₀ noise criterion is lower than the hourly L₁₀ noise criterion, the hourly L₅₀
26 noise criterion would be the more stringent criterion of the two.
27

28 The nearest noise sensitive receptor to the Molalla Gate Station is a residence approximately 528
29 feet west of the Gate Station and approximately 129 feet south of Barnards Road.
30

31 After construction of the SMPE in 2004, NW Natural tested ambient noise at a location
32 approximately 200 feet south of Barnards road and approximately 792 feet east of the gate station. The
33 ambient tests were performed December 16 through 19, 2004, during a time when gas was flowing
34 through the existing pipes and valves. A table of results appears in Attachment 16 of the request for
35 amendment. The table shows ambient L₅₀ ranging from 31.7 dB to 54 dB during the day, and from 27.8
36 to 43.7 dB at night.
37

38 The ambient noise measurements taken in 2004 give an indication of noise from the existing
39 Molalla Gate Station. However, they were not taken from the nearest noise sensitive receptor. ODOE
40 recommends condition requiring preconstruction ambient noise measurements at the noise sensitive
41 receptor, and requiring ODOE review and concurrence of the results prior to construction.
42

43 NWN’s design consultant provided an analysis of components contributing to noise propagation
44 and a set of noise reduction design measures. Projections of noise propagated by the compression
45 installation were based on measurements performed at similar gas compressor facilities, and
46 manufacturer’s sound data.
47

1 The overall prediction was that the estimated A-weighted sound level from the station, at the
2 nearest noise sensitive receptor, would be 46 dBA. This meets the DEQ night time noise limit for L₅₀,
3 50 dBA. However, because baseline noise measurements have not been conducted at the nearest noise
4 sensitive property and are also based on predictions, ODOE recommends conditions requiring
5 operational noise testing, also to be reviewed by ODOE. If the noise test shows that the DEQ nighttime
6 limit for L₅₀ is exceeded, then NWN must install additional noise reduction measures as needed to bring
7 the facility into compliance.

8
9 NWN's design consultant also included detailed specifications for measures to reduce the noise.
10 These included specifications for insulating the building that will house the compressors, specifications
11 for vent and air supply fans on the building, a muffler system for the turbine exhaust, and silencers for
12 the turbine air intake and gas aftercooler.

13
14 As noted above, the noise radiating from the facility generally would be relatively constant during
15 an hour. As a result, the hourly L₀₁, the hourly L₁₀ and the hourly L₅₀ noise levels radiating from the
16 facility would be about the same. Thus, since the noise radiating from the facility would be in
17 compliance with the hourly L₅₀ criterion, ODOE can find that the hourly L₁₀ and L₀₁ noise levels
18 radiating from the facility also would be likely to comply with the ODEQ regulation.

19
20 Installation of the compressors should produce noise levels similar to those found at any large
21 construction project. Construction would involve the operation of construction equipment, including
22 light and heavy trucks, cranes, air compressors, welding machines, and power hand tools. The DEQ
23 noise standard exempts noise that originates from construction activities.

24 25 Recommended Conditions

- 26
27 1) Prior to installation of the new compressors at Molalla Gate Station, NWN shall conduct baseline
28 noise measurements at the nearest noise sensitive receptor. Noise measurements shall be taken in
29 accordance with section (3) of OAR 340-035-0035. NWN shall submit a report detailing the
30 measurement procedures, weather conditions, and results to the Oregon Department of Energy for
31 concurrence prior to start of construction
32
33 2) Within six months after the installation of the new compressors at Molalla Gate Station, NWN shall
34 conduct operational noise measurements at the nearest noise sensitive receptor. NWN shall take the
35 measurements in accordance with OAR 340-035-0035(3), at a time when the compressors are
36 operating at least 95% of rated capacity. NWN shall submit a report detailing measurement
37 procedures, weather conditions and results to the Oregon Department of Energy for review.
38
39 3) If the measurements taken in condition (2) show that the noise from the new compressors exceeds
40 any limit in Table 8 of OAR 340-035-0035, NWN shall submit a report to ODOE describing
41 additional noise reduction measures that it will take to reduce the noise to within the limits of Table
42 8. The report shall include a schedule for installation of those measures.
43
44 4) If NWN cannot gain access to the nearest noise sensitive receptor for purposes of taking the
45 measurements required by conditions (1) or (2) above, NWN shall submit an alternate measurement
46 location and an analysis showing that the alternate location is equivalent in terms of noise reception
47 to ODOE for review and concurrence prior to taking measurements at the alternate location.
48

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Conclusion

The Council finds that with the above conditions, the modifications in SMPE Amendment 4 will meet the DEQ noise standards at OAR 340-035-0035.

V. ISSUES RAISED IN PUBLIC COMMENT

The Department received no public comments on this application or on the Proposed Order.

VI. ORDER AND SITE CERTIFICATE AMENDMENTS

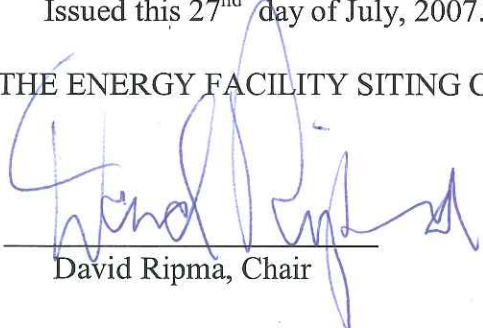
The Council finds that the changes to the facility described in NWN's Application for Amendment #4 to the Site Certificate for the SMPE comply with the Council's standards.

The Council adds the new conditions shown in section IV.A.2 of this order for installation of new compressors and removal of horizontal inclinometers. The Council adds the condition in section IV.A.3 of this order concerning restoration of temporary laydown area, and the conditions shown in the discussion of the DEQ Noise standard and CO2 standard.

The Council approves Amendment #4 and issues the fourth amended site certificate for the South Mist Pipeline Extension, subject to the terms and conditions set forth above.

Issued this 27nd day of July, 2007.

THE ENERGY FACILITY SITING COUNCIL



David Ripma, Chair