

OREGON DEPARTMENT OF ENERGY

REGARDING STATUTES, ADMINISTRATIVE RULES)
AND OTHER REQUIREMENTS APPLICABLE TO THE)
PROPOSED JORDAN COVE LIQUID NATURAL GAS) PROJECT
FACILITY AS DESCRIBED IN THE NOTICE OF INTENT) ORDER
FILED ON NOVEMBER 22, 2004)

Pursuant to ORS 469.330, Energy Projects Development L.L.C., a Colorado limited liability company, submitted a Notice of Intent (NOI) to the Energy Facility Siting Council (Council) to construct a liquid natural gas importation terminal on the north spit near Coos Bay, Oregon. The Oregon Department of Energy (ODOE) received the NOI on November 22, 2004. The proposed facility is known as the "Jordan Cove Energy Project" (Jordan Cove).

ODOE distributed the NOI to reviewers for comments and recommendations as required by ORS 469.350(3) and OAR 345-020-0040. They included state agencies, the Northwest Power Planning Council, Coos County, and the governments of incorporated cities located within 30 miles of the proposed site. ODOE also mailed notice to property owners who met the notification requirements of OAR 354-0020-0011(1)(f), and published notice in the Coos Bay Herald.

In its notice, ODOE requested comments from tribes, state agencies and local governments by January 28, 2005. ODOE requested comments from members of the general public by February 10, 2005. ODOE held a public information meeting on January 19, 2005 in Coos Bay.

OAR 345-015-0160(1) requires in relevant sections that ODOE issue an order (the "Project Order") which establishes the following:

- (a) All state statutes and administrative rules containing standards or criteria that must be met for the Council to issue a site certificate for the proposed facility, including applicable standards of Divisions 22, 23 and 24 of this chapter;
- (b) All local government ordinances applicable to the Council's decision on the proposed facility;
- (c) All application requirements in OAR 345-021-0010 applicable to the proposed facility;
- (d) All state and local permits necessary to the construction and operation of the proposed facility and the name of each agency with the authority to issue such permits;
- (e) Any other data and information that must be included in the application for a site certificate to allow the Council to determine whether the proposed facility will comply with applicable statutes, administrative rules and local government ordinances;
- (f) The analysis area(s) for the proposed facility;
- (g) Public concerns that address matters within the jurisdiction of the Council that the applicant shall consider and discuss in the application for a site certificate, based on comments from

- the public and reviewing agencies;
- (h) If the applicant has identified one or more proposed corridors in Exhibit D of the notice of intent as required by OAR 345-020-0011(1)(d), any adjustments to the corridor(s) that the applicant shall evaluate in the corridor selection assessment described in OAR 345-021-0010(1)(b);
 - (i) If the applicant chooses to demonstrate need for a proposed electric transmission line, natural gas pipeline, or liquefied natural gas storage facility under the economically reasonable rules, OAR 345-023-0030 and OAR 345-023-0040, the alternatives the applicant must evaluate in the application for a site certificate in lieu of construction and operation of the proposed facility in addition to the alternatives described in OAR 345-021-0010(1)(n)(E) or (F), if any;
 - (j) Except in the case of an expedited review granted under OAR 345-015-0300, the expiration date of the notice of intent, according to OAR 345-020-0060(1).

ORS 469.401(4) provides that certain matters are not governed by a Site Certificate issued by the Council. This Project Order does not consider these matters because they are outside the Council's jurisdiction and will not be addressed in the Council's review of the proposed facility. However, the proposed facility must still comply with all applicable requirements.

As provided in ORS 469.330, ODOE or the Council may amend this Project Order at any time.

THEREFORE, the Oregon Department of Energy, pursuant to 345-015-0160(1), orders that:

I. DEFINITIONS (see OAR 345-001-0010)

As used in this Project Order:

"Site" means the land upon which an energy facility is proposed to be located, including any rights-of-way that will be requested for construction and operation.

"Energy facility" means an energy facility as defined in ORS 469.300(11).

"Facility" means an energy facility and any related and supporting facilities, as defined at ORS 469.300(14).

II. APPLICABLE STATE STATUTES, ADMINISTRATIVE RULES, RELATED PERMITS OR OTHER APPROVALS, AND SPECIFIC INFORMATION NEEDED (OAR 345-015-0160(1)(a), (d) and (e))

The Oregon statutes and administrative rules which the Application must address, the related state permits and approvals which are required, and the specific information needed in the Application for Site Certificate for the Jordan Cove Energy Project are listed below.

1. ENERGY FACILITY SITING COUNCIL:

ORS 469.300 et seq.; OAR Chapter 345, Divisions 1, 21, 22, 23 and 24.

Permit: Energy Facility Site Certificate required before construction or operation.

2. OREGON DEPARTMENT OF AGRICULTURE

a. PLANT CONSERVATION PROGRAM

ORS 564; OAR Chapter 603, Division 73.

Permit: None required. ODA provides technical review and recommendations on compliance with Council rule OAR 345-022-0070.

OAR 603-073-0070 contains the state list of endangered and threatened plant species (see “State of Oregon Endangered and Threatened Lists for Plants” by the Oregon Department of Agriculture (ODA)). OAR 603-073-0080 provides the authority to designate candidate plant species (see “A Guide to the State of Oregon Candidate List of Plants” by the ODA).

Information for the Application (see also OAR 345-021-0010(1)(q)):

The application shall include a list of both state and federally-listed endangered, threatened, and candidate plant species that have potential to occur in the analysis area (see Section VI) based on a review of literature, consultation with knowledgeable individuals and species listed on the Oregon Natural Heritage Program database, based on a database search for Coos county.

The application shall include a description and the results of a field survey for the plant species listed above within the analysis area. The field survey shall be conducted by a qualified individual at an appropriate season(s) considering the plant species under consideration. The field survey report should include written descriptions of the survey methods and areas surveyed, and any photographs taken.

NWN should consult with the Oregon Department of Agriculture, Native Plant Conservation Program, as necessary, regarding the field survey methods, schedule and qualifications of field survey personnel. The contact person is Dr. Robert Meinke at 541-737-2317 (voice), 541-737-3573 (fax) and e-mail at meinker@bcc.orst.edu.

If Energy Projects Development finds any state-listed threatened or endangered plant species, then the application must address the requirements of OAR 603-073-0090(5)(d)(A)-(E) and OAR 345-021-0010(1)(q), especially (D) and (E).

b. SHELLFISH PROGRAM – ODA FOOD SAFETY DIVISION

In comments of January 10, 2005, Oregon Department of Agriculture raised concern about the potential effect of residual particulate matter that may be transferred to bay or ocean shore areas during heavy runoff periods on shellfish harvested by recreational and commercial users. The

sandy soils of the north Spit could permit rapid transport of contaminants to the bay or beach areas where shellfish are found. ODA recommends that any application for stormwater discharges list possible contaminants and potential for migration from storm water containment areas. Although the stormwater discharge permit is administered by DEQ under a delegation from the federal government, the issue of potential contamination to shellfish due to stormwater discharge is of concern to the Council and the public. The application for site certificate should therefore provide this information as well. The Department recommends that, as an agricultural issue, this issue be considered an extension of the Council's soils standard, OAR 345-022-0022.

ODA also recommends that the application describe a spill response plan that takes into account possible impacts to commercial and recreational shellfish from an LNG spill. The application should address the effect that LNG at -260 degrees F would have on waters at the point of discharge, and on fish and shellfish, the potential for shellfish to take up the LNG, and the potential impact on consumer safety.

ODA also identified the same concern for shellfish living in the sandy beach. If there is a leak in the cryogenic pipeline, how far would LNG migrate in the sand? How far would the temperature change be felt? How quickly would subsurface leaks be detected? ODA recommends that DEQ's Geographic Response Staff be consulted in drafting a spill or leak response plan.

3. DEPARTMENT OF ENVIRONMENTAL QUALITY--WATER QUALITY:

ORS Chapter 468 and 468B; OAR Chapter 340, Divisions 14, 41, 45, 52 and 55.

Permit: Water Pollution Control Facility (WPCF) Permit for disposal of process water discharge and sanitary discharge

The NOI indicates that domestic sewerage will be processed in an on-site wastewater treatment facility prior to discharge. This discharge will require a WPCF permit for sanitary discharge. The NOI also describes process water discharge, predominantly mineralized boiler blow-down, which is also subject to WPCF requirements.

WPCF permits are issued in accordance with the procedures set forth in Oregon Administrative Rules (OAR) 340-014-0005 through 340-014-0050. The specific regulations for WPCF permits are in OAR 340-045 "Regulations Pertaining to NPDES and WPCF Permits".

The permit requested is required per OAR 340-045-0015:

(1) Without first obtaining a permit from the Director, no person shall:

(b) Construct, install, modify, or operate any disposal system or part thereof or any extension or addition thereto:

Per OAR 340-045-0005:

Disposal means the placement of wastes into public waters, on land or otherwise into the environment in a manner that does or may tend to affect the quality of public waters.

Disposal system means a system for disposing of wastes, either by surface or underground methods.

A WPCF permit application requires the following exhibits:

1. A complete description of the proposal;
 2. The location of the project and adjacent facilities and waterways;
 3. Schedule for development;
 4. Schematic diagrams of industrial processes, waste streams, and treatment (if any);
 5. Disposal of solid waste and sludges;
 6. Groundwater information; Evaluation of groundwater and surface water impacts.
4. OREGON DEPARTMENT OF FISH AND WILDLIFE--HABITAT CONSERVATION DIVISION:

ORS 496, 506 and 509; OAR Chapter 635, Divisions 100, 415, and 425.

Permit: In-water Blasting Permit, if in-water blasting will be needed.

Note: Agency provides technical review and recommendations on compliance with Council rules OAR 345-022-0040, 060 and 070.

ODFW will base its review and recommendations on the following applicable statutes and rules:

ORS 496.012 Wildlife Policy

ORS 496.171 through 496.192 Threatened and Endangered Wildlife Species

ORS 506.109 Food Fish Management Policy

ORS 509.140 Placing Explosives in Waters

OAR Chapter 635, Division 100 provides authority for adoption of the state sensitive species list and the Wildlife Diversity Plan, and contains the state list of threatened and endangered wildlife species.

OAR Chapter 635, Division 415 classifies habitat into six categories and establishes a mitigation goal for each category. The application must identify the appropriate habitat category for all areas of the site and provide the basis for each category selection, subject to ODFW review.

If the project requires in-water blasting, an in-water blasting permit would be required. An application for an in-water blasting permit must include the information necessary to meet the requirements of ORS 509.140 and OAR 635-425-0000 through 635-425-0050. An application for an in-water blasting permit must be submitted 90 days prior to the date of blasting.

Issues raised:

ODFW's complete comments on the NOI are provided in ODFW's January 28, 2005 letter from Rose Owen to Adam Bless. The ODFW comments are extensive and ODFW's January 28 letter is incorporated by reference into this project order. The following comments and recommendations are excerpted from that letter.

ODFW recommends using the wildlife species list developed by the Bureau of Land Management (BLM) that pertains specifically to the Coos Bay North Spit. The list has a legend that includes a set of abundance designations and codes. ODFW recommends consideration of native bird species listed as common (C), fairly common (FC), uncommon (U), rare (R) and irregular (I).

Because the BLM list is extensive, ODFW suggests that some species could be lumped together for consideration as long as their habitat requirements and timing on the North Spit are the same.

For mammal, reptile and amphibian species, ODFW recommends considering all listed species that are native to Oregon. Again, there may be opportunities to lump species together by habitat requirements and timing.

Regarding fish species, ODFW noted that coho and chum salmon are "Sensitive-Critical"; Pacific lamprey, coastal cutthroat trout and coastal steelhead are "Sensitive-Vulnerable". Chinook and chum adults and juvenile use this portion of the bay as temporary rearing and migration corridor on the way to and from the ocean. ODFW also recommends that the green sturgeon be considered, as it is proposed for federal listing.

At the project site, where the offshore structure is proposed, the primary habitat use for salmonids would be short-term migration. Adult and juvenile salmonids would not be expected to reside in this deep draft channel area for long periods of time and would likely move with the tides. ODFW has a long-term estuary seining data set that gives the species composition and timing of occurrence for fish in Coos Bay. This data set can be obtained from Mike Gray at the ODFW Charleston Field Office. Sturgeon and marine fish species may inhabit this area for longer periods. ODFW research crews conducted tagging studies on Coos Bay from 2000 to 2003 and should have information regarding habitat use by sturgeon in this vicinity. The information can be obtained from Dave Ward of ODFW's Clackamas office (503) 657-2000.

Analysis Area

For wildlife species: ODFW recommends an analysis area size and location to be lands and inland waters within a radius of 10 miles of the project site for highly mobile species such as raptors or large mammals that may move long distances daily for feeding, roosting or rearing of young. For less mobile species such as reptiles and amphibians, ODFW recommends an analysis area of 0.25 miles of the site. ODFW recommends consideration of species occurring within five

miles west of the ocean shore due to the mobility of the species using this habitat. The recommended analysis areas are based on the target species' home ranges.

For fish species, the analysis area should be Coos Bay, west of the highway 101 bridge. The analysis area for the hydrology study should reach from the McCullough Bridge to Empire and should include an analysis of impacts to the North Slough and Haynes Inlet. The analysis area for dredging should include any new areas to be added to the channel dredging area that are currently being conducted by the US Army Corps of Engineers (USACOE) and Roseburg Forest Products. The analysis area for spills/emergency response should encompass the same area as the Coos Bay Geographic Response Plan.

The analysis area for recreational impacts should include all of the North Spit from Coos Bay North Jetty to the northern boundary of township 24 S. This analysis area should also include the surface area of Coos Bay to Mean High Water line, in order to describe potential impacts to boaters, anglers, crabbers and clammers.

ODFW Recommendations on Studies to be conducted

For wildlife species, ODFW recommends an inventory of habitat quantity and quality on the proposed project property and surrounding property within 2 miles. This information may be useful in narrowing the field of species to be studied for potential impacts from construction and operation or hazards created if there is an accident. There will be some habitat loss when tree removal for the pipe occurs and when the storage tank is placed. There may be some effect on shore bird and wading bird habitat in the vicinity of the dock once it is in place. ODFW also recommends documenting the presence or absence of species on the BLM list that are located in the project area, and the presence of species that are not on the BLM list.

For fish species ODFW recommends that the application include timing and occurrence information from estuary fish sampling. Coos Bay is an important rearing ground for juvenile marine fish such as rockfish, greenling, surfperch and cabezon.

Under the Council's Recreation Standard, ODFW has recommendations listed on page 5 paragraph (c) of its January 28, 2005 comments.

ODFW also recommends pre-construction sediment sampling in Jordan Cove for baseline data, and routine sediment sampling during construction and operation of the facility to determine potential levels of sediment contamination.

Regarding Stormwater runoff, the stormwater discharge permit is a 1200-C permit obtained from the Department of Environmental Quality. The 1200-C permit is federally delegated to DEQ and is not part of the EFSC review. However, the application for site certificate should affirm that the stormwater issues raised in the January 28 ODFW letter are addressed in the 1200-C permit.

Other Recommendations

ODFW noted that the docking/offloading structure may have the greatest potential for impact from this project. ODFW provided recommendations on the design and construction of the offshore structures and referenced the Port of Portland's "Portland Harbor Study", available from ODFW's Charleston office. ODFW has specifically recommended an analysis of the effects to hydrology associated with the shoreline development of the offshore structure.

The application should indicate new areas to be dredged and maintained at channel depth. Those areas should be surveyed for species present (plant and animal) and habitat functionality.

Regarding spills and emergency response, the application should reference aspects of Oregon's Geographic Response Plan for Coos Bay that apply to the proposed project, including delivering tankers. Similar consideration should be given for spills of other products and by-products of the LNG offloading, storage, vaporization and delivery into gas pipelines.

Other ODFW comments on the NOI

In this project order, ODOE has summarized the issues in ODFW's January 28, 2005 letter for brevity. However, the applicant should review the entire letter and address issues raised there. ODOE makes note of the comments on the NOI at page 7, the in-water work window stated at page 8 and the request for acreage of altered habitat at page 8.

5. DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES:

Permit: None required. Agency provides technical review and recommendations on compliance with Council rule OAR 345-022-0020.

Additional Information for the Application:

The application must include a geotechnical report that includes, as a minimum, the information required by OAR 345-021-0010(1)(h). The application must assess the risk to human safety during the Maximum Probable Event (MPE) defined in OAR 345-021-0010(1)(h). DOGAMI has noted that for the Coos Bay area, there is no distinction between the maximum "credible" event and the maximum "probable" event.

The Department of Geology and Mineral Industries (DOGAMI) is the lead agency in technical review for compliance with EFSC's Structural standard. DOGAMI's January 19, 2005 letter from Bill Burns to Adam Bless is incorporated by reference into this project order.

ODOE notes that compliance with the EFSC structural standard is not based on a general statement of UBC seismic zone but on a detailed site-specific assessment of ground acceleration at the site. The application should include results of borings, cone penetrometer tests, and any other geotechnical work. A "Shake" analysis may be required. On fill soils, the potential for liquefaction should be addressed in detail. For Coos Bay, DOGAMI has advised that there is little distinction between the Maximum Credible Event (MCE) and Maximum Probable Event (MPE) as those terms are defined at OAR 345-021-0010. The applicant is urged to consult

directly with DOGAMI before drafting the application, and to include the ODOE project officer in discussions with DOGAMI.

6. DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT:

ORS 197; OAR Chapter 660.

Permit: Agency provides technical review and recommendations on compliance with Council rule OAR 345-022-0030.

The applicant has the option of obtaining the necessary land use permits directly from Coos County, pursuant to ORS 469.504(1)(a) (path "A"). Alternately, the applicant can request EFSC determination of compliance with statewide planning goals, under ORS 469.504(1)(b) (path "B").

The NOI indicates that Jordan Cove intends to request EFSC determination of land use compliance under path B. The final election need not be made until the application is submitted. Once the application is submitted, that election cannot be changed.

The project is in unincorporated Coos County. The county has a comprehensive land use plan acknowledged by the Department of Land Conservation and Development. Applicable plan and land use regulations include the Coos County Comprehensive Plan, Coos County Zoning Ordinance and the Coos Bay Estuary Management Plan (CBEMP).

The Department of Land Conservation and Development has provided detailed comments on the applicable elements of these plans, in the January 28, 2005 letter from Dale Blanton to Adam Bless. That letter is incorporated into this project order.

Coos County Planning Department listed applicable substantive criteria from the comprehensive plan and zoning ordinance, in a January 31, 2005 letter from Patty Evernden to Adam Bless. That letter is incorporated into this project order.

The NOI indicates that the project will require dredging at the proposed docking area, in addition to the dredging that the US Army Corps of Engineers would normally perform in the harbor. The application for site certificate should identify the spoils deposition area on maps and drawings, and analyze dredging and spoils deposition for compliance with the Coos County Comprehensive Plan and CBEMP as well as other standards. If the spoils deposition area is outside the proposed facility site, the Council must nonetheless find compliance with spoils deposition as a related and supporting activity.

7. OREGON PARKS AND RECREATION DEPARTMENT-HISTORIC PRESERVATION SECTION:

ORS 97, 358 and 390; OAR Chapter 736, Division 51.

Permit: An archaeological permit may be required to conduct archaeological investigations of the site.

Note: Agency and Tribes provide technical review and recommendations on compliance with Council rule OAR 345-022-0090.

Information for the Application:

The application shall include a description and results of an archaeological/cultural survey of the site, conducted by a qualified archaeologist.

The Oregon State Historic Preservation Officer (SHPO) provided written comments in a letter from Dennis Griffin (Oregon Department of Parks and Recreation, or "OPRD") to Adam Bless dated December 21, 2004. That letter is incorporated into this project order.

The SHPO noted that three potential sites have been noted in the project area. The SHPO stated that the project is located on a landform generally perceived to have a high probability for possessing archeological sites and buried human remains.

The SHPO also provided a suggested format for the archeological survey report. While this report format is not explicitly required by OAR 345 Division 21 or by OPRD administrative rules, its use will increase the likelihood of a finding of "completeness" from the SHPO.

--OTHER PARKS PROGRAMS:

ORS 390; OAR Chapter 736.

Permit: None required. Agency provides technical review and recommendations on compliance with Council rules OAR 345-022-0040, 080 and 100.

Based on the information in the NOI, the Department of Parks and Recreation states that there are no recreational facilities over which OPRD has jurisdiction. They have indicated no other concerns with the project.

8. OREGON DIVISION OF STATE LANDS--WETLANDS:

ORS 196; OAR Chapter 141, Division 85.

Permit: A removal-fill permit is required if 50 cubic yards or more of material is removed, filled or altered within natural wetlands and waterways.

Information for the Application:

ODOE's prior experience indicates that the National Wetlands Inventory misses many wetlands. Therefore, the application must contain a wetlands delineation for the site. The wetland delineation should describe the major plant communities and evaluate the function and condition of each wetland. The wetland delineation must be conducted by qualified individuals and use criteria and procedures in the 1987 Corps of Engineers Wetland Delineation Manual.

ODOE notes that:

1. Secondary and tertiary indicators can result in areas being considered wetlands even though this classification is not obvious from surface expression; and
2. the Oregon Department of State Lands (DSL) extensively revised its wetland permitting rules in 2003. The revision included substantive changes to the way wetlands are categorized in terms of functional characterization. ODOE strongly advises that the wetlands consultant selected confer with Janet Morlan, Wetlands Program Leader (voice: 503-378-3805 ext. 236; fax: 503-378-4844) before they begin work. This may save considerable time and expense. Please advise and include ODOE in these discussions.

If the delineation indicates potential for impacts to wetlands or other waters, the application must identify the location and describe the nature and extent of each impact, and develop mitigation measures for each impact identified.

If a removal-fill permit is needed, the application must include an itemized demonstration of compliance with each applicable provision of ORS 196.825 and OAR 141-085-0050. The application is a joint application to DSL and the US Army Corps of Engineers (USACOE).

DSL comments on the NOI are included in a January 31, 2005 letter from Steve Purchase to Adam Bless, which is incorporated into this project order.

--LAND OWNERSHIP:

ORS Chapters 273, 274 and 758; OAR Chapter 141, Divisions 82 and 83.

Note: Pipelines, intakes, outfalls or other structures extending onto or over state-owned submerged or submergible lands require a lease, easement or other approval granted by the Division of State Lands.¹

9. WATER RESOURCES DEPARTMENT--WATER RIGHTS DIVISION:

ORS 537 and 540; OAR Chapter 690.

¹ Proprietary interests in state-owned lands are not within the Council's jurisdiction and Council approval of a site certificate does not bind the Division of State Lands, or any other state agency, to grant a lease, easement or other approval related to land ownership.

Permit: None. The NOI states that Jordan Cove will buy water from the Coos Bay – North Bend Water Board. The application should provide documentation from the Water Board confirming that they have adequate supply to meet the facility’s needs without affecting other subscribers.

III. APPLICABLE LOCAL GOVERNMENT ORDINANCES, PERMITS OR OTHER APPROVALS (OAR 345-015-0160(1)(b))

Based on information in the NOI, the site is located in unincorporated Coos County.

The NOI states that Energy Projects Development intends to seek a Council determination of compliance with applicable substantive criteria from the affected local government’s acknowledged comprehensive plans and with directly applicable LCDC rules, as set forth in ORS 469.504(1)(b). See comments under “Department of Land Use and Conservation” in section II.6 of this project order.

The applicant has the option of seeking land use approval directly from Coos County. The application for site certificate must state the choice of Land Use approval path. The choice need not be made until the application for site certificate is submitted. Once the application for site certificate is submitted, that election of land use approval path cannot be changed.

The applicable criteria from the County’s land use plan are those in effect on the date the application for site certificate is submitted. ORS 469.504(1)(b)(A).

IV. APPLICABLE REQUIREMENTS OF OAR 345 DIVISION 21 (OAR 345-015-0160(1)(c))

The application shall include the information described in OAR 345-021-0010(1), (2) and (4). All the exhibits listed in OAR 345-021-0010(1) apply unless this project order states otherwise. This project order includes specific direction about some exhibits. If this order does not provide specific direction for a certain exhibit then the applicant should follow the guidance in OAR 345-021-0010(1). If you believe some subsections of OAR 345 Division 21 do not apply, please contact ODOE in writing regarding a waiver of those sections before submitting the application.

Exhibit D of the application addresses compliance with the Council’s Organization Expertise Standard, OAR 345-022-0010. Besides providing the information specified in OAR 345-021-0010(d), the application should make your best case for compliance with the Council’s standard. Jordan Cove is different from the power plants and transmission lines that EFSC usually reviews because there is little experience nationwide in construction and operation of LNG facilities. Moreover, Energy Projects Development LLC is not part of a larger company with and the Council has no familiarity with its track record. Therefore the application should include detailed information on the expertise within the company and the company’s ability to retain necessary expertise from the outside. If the project is described as a “turnkey” project, the application should include evidence of any agreements with experienced contractors, their capabilities, and their ability to comply with conditions in the site certificate.

The NOI states that for certain key components of the facility, Jordan Cove will rely on third parties. These include but are not limited to water supply pipeline (Coos Bay and North Bend Municipal Water Board), the natural gas pipeline that will tie the facility to NW Natural's distribution system, and any necessary electric transmission services. These components, even though provided by others, may be related and supporting facilities as defined at OAR 345-001-0010(47) if they would not be built "but for" construction and operation of the LNG facility.

In particular, NW Natural has a distribution line planned for the north spit, but it would not go all the way to the Jordan Cove site. In order to accept vaporized natural gas from the Jordan Cove facility, NW Natural would have to build a spur approximately two miles long. The spur would not be built but for the LNG facility and therefore should be addressed in the Jordan Cove application for site certificate as a related and supporting facility.

Such "third party" facilities may not require the full scope of EFSC review, but must meet part (3) of the Organization Expertise Standard. The standard requires a finding that the named third party is likely to receive all needed approvals and is likely to enter into an agreement to serve the facility. The application for site certificate should contain evidence that this part of the standard is met. If a linear facility such as a transmission line would be constructed even if the LNG facility is not built, then it is not "but for" and the application should simply demonstrate this.

Exhibit E should include information of Jordan Cove's schedule for applying for and receiving any wetland permits from the U.S. Army Corps of Engineers, to the extent that schedule is known. Note that even though federal and federally delegated permits are not under Council jurisdiction, the application for site certificate must still include the information at OAR 345-021-0000(5)(a) and (b).

Exhibit G applies to the facility. Even though this exhibit does not correspond to a particular standard, ODOE will use the information in reviewing retirement costs, spill hazard, potential impact on soils under OAR 345-022-0022, and identifying public safety conditions.

Exhibit H should take into account the DOGAMI comments at section II of this order.

Exhibit I applies to the proposed facility. Although the 1200-C and 1200-Z stormwater discharge permits are federally delegated to DEQ, Exhibit I should describe erosion control measures proposed to meet DEQ stormwater discharge permit requirements, in support of a Council finding of no adverse impact on soils under OAR 345-022-0022.

Because the soils standard protects agriculture and agricultural productivity, the Department extends this standard to include shellfish harvested by commercial users. In effect, ODA treats shellfish as a crop. Comments of Oregon Department of Agriculture at section II.2.b of this project order should be addressed, sufficient to determine if the project is likely to have an adverse impact on productivity of the bay and ocean. If the issue of potential runoff of contaminants from the project is addressed in the DEQ stormwater discharge permit review, the application for site certificate should list terms of the stormwater discharge permit that will

prevent adverse impact on this resource. If dredging for the project will affect productive shellfish beds, the application should describe the extent of the impact and propose mitigation.

Exhibit N should include the information at OAR 345-021-0010(G) in order to support review of compliance with the “economically reasonable” rule, OAR 345-023-0040. Subpart (ix) of this rule specifically addresses liquid natural gas facilities. Note that all previous applicants that met the Council’s Need standard relied on integrated resource planning review by the Oregon Public Utilities Commission (OPUC). The Jordan Cove facility will be the first to use OAR 345-023-0040. Because the Jordan Cove ASC will set a precedent for other LNG facilities, ODOE strongly advises direct consultation with Phil Carver (503) 378-6874 of ODOE prior to drafting this exhibit.

Exhibit P and Q should address the comments of ODFW in its January 28, 2005 letter, summarized above in section II of this order.

Exhibit R addresses retirement cost estimates. ODOE has a draft guide for estimating retirement costs. The Council has not approved this guide and its use is not mandatory, but the guide has been the basis for retirement cost estimates at other EFSC jurisdictional facilities (*see* Final Order Approving the COB Facility or Order on Amendment #4 to the Summit/Westward Energy Project Site Certificate). ODOE’s consultant drafted this guide primarily with conventional power plants in mind. If it does not lend itself well to an LNG facility, then Exhibit R can use a different methodology to estimate the size of the necessary site retirement surety. The purpose of the standard is to ensure that Oregon taxpayers will not bear the burden of site restoration in the unlikely event that construction is started but not completed, or the event that the facility is closed prematurely. Therefore staff will review the retirement cost estimate to ensure that actual site retirement costs do not exceed the surety amount.

Exhibit S should take into account the SHPO’s comments summarized above in section II of this order. Although not required by rule, presentation of the information in the format preferred by the SHPO will expedite the SHPO’s review.

Exhibit T should include, in addition to the requirements of OAR 345-021-0010(t), consideration of the concerns raised by ODFW in its January 28, 2005 letter. In particular, the ODFW district biologist points out that the dunes area owned by Weyerhaeuser is heavily used for recreation. Please address the need for any exclusion zones required to ensure public safety, the need for alarms, sirens and evacuation plans in areas that are popular for recreation, and the effect that such safety precautions will have on recreational opportunities both formal and informal.

Exhibit U must address the services listed in the Council’s Public Services standard, OAR 345-022-0110. During the site visit of January 19, ODOE noted that access to the site from Highway 101 is a single turnoff that currently has no traffic signal. The application should address the safety of that intersection and the effect that construction traffic will have. The application should state to what extent, if any, heavy construction equipment and material will be brought in without using highway 101.

Emergency preparedness is one of the most important of the local law enforcement functions considered under the Public Service Standard. ODOE anticipates that any FERC license will include conditions requiring FERC review of a fully developed emergency response plan prior to operation. The application should describe the federal regulations governing emergency response plans for LNG facilities, and the acceptance criteria set forth in federal regulation. If no federal regulation applies, then ODOE will recommend that EFSC require an emergency plan by condition. If the presence of an LNG facility requires extra preparedness for natural events, accidents or acts of terrorism, those requirements will impact the public services covered under this standard. The emergency plan might not be ready when the ASC is submitted. If not, any site certificate will likely include conditions stipulating Council opportunity to review the plan prior to operation in cooperation with FERC's review.

The application should indicate what extra resources such planning will require of local law enforcement and first responders, the ability of those responders to perform their emergency function, and Jordan Cove's commitment to augment their capabilities as needed. If FERC, USDOT or another federal agency has issued a standard review plan for emergency preparedness at LNG facilities, please reference that plan in the application. If FERC requires the emergency response plan pursuant to federal statutes or regulations, the ASC should list the substantive requirements from those regulations and show evidence of compliance. If there is no federal requirement for an emergency response plan, then the Council will require one.

Security requirements under the Maritime Transportation Security Act of 2002 (MTSA) and 49 CFR 193 could require the resources of local law enforcement agencies. The ASC should describe the security requirements, how local law enforcement will be involved, and what local law enforcement resources would be needed. The ASC should either include evidence that such requirements will not tax the current resources of those agencies, or should include Jordan Cove's commitment to augment those capabilities. If security requirements will include closing the harbor, the North Bend Airport, or other public transportation facilities, the ASC must include the frequency and extent of such closures.

ODOE observes that the Coos Bay/North Bend area has limited egress routes. The North Spit is served only by one relatively narrow road to the mainland, and highway 101 is the only significant route for north-south travel. Because of the Coast range, east-west evacuation is not practical. Therefore the application should describe the maximum distance within which evacuation could be required in a design basis event (including natural events or human initiated events whether accidental or deliberate), and an assessment of the local roads' adequacy to handle such an event. The application should also describe the alarms that will be incorporated into the facility design.

With regard to Exhibit X, ODOE observed at a site visit on January 19, 2005 that the nearest residential properties are more than a mile from the site. The facility shares the site with a wood products facility and the North Bend Municipal Airport is directly between the project site and the nearest residential property. Therefore baseline noise studies may not be valuable. However, we recommend a qualitative assessment of likely construction and operation noise and a discussion of proposed noise abatement measures, if any, near "noise sensitive locations" as

that term is defined at OAR 340-035-0035. Because the facility includes a small combustion turbine generator, the application should include evidence that the noise from the facility at the nearest noise sensitive location will not exceed the limits in Table 8 of OAR 340-035-0035.

Exhibit Y The NOI states that the facility will include a natural gas fired combined cycle combustion turbine generating plant with between 20 MW and 25 MW capacity. The NOI states that most of this output will be used for in-house loads, but some power may be left over for the grid. The NOI suggests that the carbon dioxide standard should apply to this generating plant, and that the use of waste heat from the generating plant for vaporizing the LNG be treated as a fuel displacement (cogeneration offset) credit.

Because this application for site certificate will set precedent for other LNG proposals, the Department is carefully considering the approach to carbon dioxide emissions at LNG facilities. The Department has identified a number of alternate approaches, including the one suggested in the NOI, and may need rulemaking to adopt an approach that applies to all LNG facilities and is consistent with how the Council approaches CO₂ emissions at other facilities. The Department has scheduled a workshop on rulemaking concepts in Portland on April 18th. If the Council chooses to adopt rules governing CO₂ at LNG facilities, then the Department will include those rules in a revision to this project order.

Exhibits Z and AA do not apply.

V. PUBLIC HEALTH AND SAFETY

The site certificate shall contain conditions for the protection of public health and safety. ORS 469.401(2). The Council is authorized to adopt standards for the projection of public health and safety, including necessary safety devices and procedures. ORS 469.501(1)(g).

Under the Council's standards at OAR Chapter 345 Division 22, safety is addressed in the structural standard, which requires the Council to find that the facility can be designed to protect public health and safety in the event of seismic events and geological hazards including tsunami. Safety is also addressed in the Public Service standard, which requires the Council to find that the facility would not adversely affect the community's ability to provide for fire and police protection, including security and emergency preparedness.

Because LNG facilities pose a unique potential hazard when compared to other energy facilities, the Council requires information not explicitly described in OAR Chapter 345 Division 21 in order to fulfill the statutory requirement to adopt conditions for public health and safety.

Under OAR 345-021-0010(bb), Exhibit BB provides for information that is needed but not captured by the other exhibits. For Jordan Cove, ODOE recommends using Exhibit BB to address in detail the safety concerns associated with the facility.

Exhibit BB should describe a "design basis event", which is the maximum credible event that could endanger the people or property in the community. The design basis event is a rational

and believable event, but should include events that are unlikely but credible. The design basis event is the event you would use in designing safety features, quality assurance requirements, security measures, controlled area boundaries, warning sirens, and emergency plans. It includes events triggered by accident, human error, natural events and credible acts of terrorism.

The application should analyze likelihood as well as consequences, so that safety and security measures can be based on risk (product of likelihood X consequences). If formal probabilistic risk assessments have been done, those should be cited and described. If no formal probabilistic risk assessment is available for the LNG industry, then the application should include the rationale and factual basis for any subjective assessment of overall risk.

The Council recognizes that the federal government has assigned primary responsibility for offshore safety and security to the U.S. Coast Guard. However, the hazards associated with LNG tankers would not exist but for the proposed facility. Therefore the credible events described in the ASC should include events over water, notwithstanding the Coast Guard's responsibility for enforcing safety and security measures offshore.

This order in no way directs the applicant to disclose details regarding safety features or security measures that must be withheld from public disclosure to protect public health and safety.

Exhibit BB should contain a description of Safety Controls and an analysis of reliability and safety. If a Draft Environmental Impact Statement is available at the time the ASC is submitted, then Exhibit BB may contain appropriate cross references to this information. If the Draft EIS is not yet ready, the Exhibit BB should contain information that would likely make up those sections of the EIS, to the extent known. As a minimum, the ASC should include:

- i. Sections of 49 CFR 193 applicable to the facility, and a description of how the facility will meet them.
- ii. Other applicable federal regulations that address safety and emergency preparedness.
- iii. Professional codes and standards (ASME, NFPA, IEEE, etc.) that will apply to design and construction of the facility.
- iv. A description of design basis accidents and events that will inform the design and construction of the facility. In particular, a discussion of the methods, models and assumptions used to calculate the distances at which heat flux in a design basis event would reach levels of 5 and 18 kW per square meter. The ASC must include evidence that the modeling of the design basis event includes appropriate conservatism, particularly in the assumptions and inputs used for event modeling.
- v. Exclusion zones required by federal code. If such zones are not entirely within the property, an assessment of the ability to control those zones in an accident or event.
- vi. Quality Assurance codes and standards (ASQC, ISO, etc.) that will be used to assure that components of the facility important to public safety will perform satisfactorily in service. If available, the ASC should include the quality assurance program that will cover design, procurement and construction. If a formal quality assurance program is not

proposed, the ASC must include evidence that systematic and planned measures will be implemented to ensure that safety features will function as designed.

- vii. Information on containment structures for the LNG storage tanks and for cryogenic pipes.
- viii. Measures to ensure that persons who might intentionally commit acts that would endanger public health and safety are denied access.

Please identify all areas where the project will exceed the minimum regulatory requirements.

Topics listed above that do not typically appear in an EIS should be discussed in the ASC. Any information on emergency preparedness can appear either in Exhibit BB or in the Exhibit addressing the Public Services Standard and need not be duplicated.

VI. PUBLIC COMMENTS ON the NOI (OAR 345-015-0160(1)(g) and (h)

In addition to the applicable statutes, rules and local land use requirements listed in Sections II and III, the application must address issues arising from public comments. ODOE heard public comments at the informational meeting on January 19, 2005, and received written comments. In the public notice of the NOI, ODOE invited public comments until February 10, 2005.

The following is a summary of the public comments on the NOI. Some comments were repeated, with different wording, by two or more persons. For this reason, we have grouped the main comments according to their topic.

This summary is not a substitute for the original comments. ODOE distributed copies of all public comments, in their original form, to the applicant and the Energy Facility Siting Council members. The applicant and Council should review the original comments in their entirety. However, this summary identifies common themes among the various commenting parties.

Comments directly tied to EFSC Standards

EFSC Structural Standard

Earthquake and Tsunami concerns must be addressed fully.

Ground at the site is sand and sandstone down to 170 feet.

Organizational Expertise Standard

The application needs to give more details about Energy Products Development, its investors, and its qualifications to develop this facility.

Retirement and Financial Assurance Standard

The applicant should provide assurance that once started the facility will be completed.

Once construction begins, the developer must have responsibility for restoring the site at the end of the facility's useful life.

The developer must be responsible for restoring the site if the project is begun and abandoned.

Public Services Standard

Cost of needed infrastructure should not fall on taxpayers.

Cost of necessary fire protection, security, emergency preparedness and safety should not fall on taxpayers.

Security and safety requirements would limit operations at Municipal Airport

Comments regarding safety:

The facility must ensure that the natural gas delivered and stored there is free of corrosives.

Application should describe U.S. Coast Guard (USCG) plans and requirements, maritime safety, required notifications and planned shipments, measures to ensure that notice of planned shipments is not received by persons seeking to do harm, adequacy of local law enforcement agencies, measures to ensure that no foreign nationals are in the area of delivery, security plans beyond Code of Federal Regulation and USCG requirements, plans to notify responsible agencies of suspicious persons or incidents, fire suppression system.

Restrictions needed for safety and security would adversely affect local seafood producers.

Damage to Pentagon on 9/11 shows LNG tanks are not safe in a 9/11 type attack

The security and safety measures needed for this facility could have adverse impact on other maritime activities that are economically important to Coos Bay.

Comments regarding accident consequences:

Since applicant is a limited liability company, there is no guarantee that the applicant would compensate local public for damage after a major LNG fire. The ASC should include applicant's commitment to carry liability insurance sufficient to cover damages in a worst case event.

Applicant should address damage to nearby bridges and roads, highway 101, Pony Slough and Pony Village in the event of a major accident or terrorist event, and damage from LNG flow and resultant freezing if there is a breach without a fire

Release into the estuary in an accident would adversely affect local fisheries and seafood industry

An LNG explosion could have an impact greater than 50 times that of the Hiroshima bomb, destroying much of the nearby city.

Damage to the harbor from an accident or sunk vessel would have adverse impact on other maritime activity.

Studies by professors Jerry Havens and James Fay show that fire danger could reach up to 5 miles (note, the Fay study is discussed in the Sandia Report of December 2004)

Methane is an endocrine disrupter, therefore a small release would have great impact.

ASC should discuss why Boston tried to ban LNG from local waters

If released, methane has 21 times more greenhouse impact than carbon dioxide.

Comments regarding impact on Fish and Wildlife Habitat:

Marine habitat impact from dredging and terminal activities

Marine habitat impact from fire or from extreme cold if there is a spill but no fire.

Erosion to shoreline from construction and from tanker traffic

Pollution impacts of a leak, including an analysis of other nearby industrial facilities that would be damaged and would release pollutants in the event of a major LNG fire.

Comments addressing Recreational and Scenic impacts:

Need for exclusion zones could reduce availability of nearby Dunes recreational area

Discussion of scenic impact should consider entire Coos Bay area, not just the area immediately visible from the site.

Adverse effect on recreation would impact an important economic activity in the area.

Security requirements would restrict recreational fishing and boating

Comments addressing Need for Facility:

Demonstration of Need should factor in risk to the community

Demonstration of Need should discuss the stability of LNG producing nations

People who bear the risk do not have high demand for the LNG.

In a fluctuating gas market, LNG facility may not remain economically viable.

Other facilities planned by larger companies may saturate the market before Jordan Cove is built.

Comments on Noise

ASC should address noise impact from the generator (applies to DEQ Noise standard)

Miscellaneous Comments: *These comments are not tied directly to an EFSC standard, but are listed here because they are concerns raised by the public..*

List companies that are committed to coming to Coos Bay because of the LNG facility.

List companies that might want to locate in Coos Bay but will decide not to if there is an LNG facility.

Permitting decision should be made by local population, not by state or federal agencies.

What is availability of LNG tankers sized for this facility?

The developer should look to the available local labor pool during construction.

Economic benefit of the facility is too small to justify the risks.

Comments in favor: ODOE received comments favoring the project from Pennington, Georgen and the Port of Coos Bay. Those comments are noted in the Project Order but do not require a response in the ASC.

VII. ANALYSIS AREAS FOR THE PROPOSED FACILITY (OAR 345-015-0160(1)(f))

The analysis areas are the minimum areas for which the applicant shall describe the proposed facility's impacts in the application for site certificate. OAR 345-001-0010(2). Most of the standards in OAR 345 Division 22 do not limit consideration of impacts to a specific area. The applicant is responsible for identifying, minimizing and mitigating adverse impacts wherever they occur. The analysis areas below do not limit the applicant's responsibility, but are the distance at which ODOE believes adverse impacts are unlikely, based on the NOI. If the project's impacts could reasonably extend beyond the analysis areas below, then the applicant's discussion of those impacts should extend further as well.

Temporary Laydown Areas

Construction sometimes involves temporary use of land, which is then returned to its original status once construction is complete. EFSC considers temporary laydown area as part of the site. Impacts on temporary laydown area should be described in the same way as impacts on the permanent site, even if those impacts are temporary. For example, if dredging spoils will be placed somewhere outside the proposed energy facility, the application should state where the spoils will be placed and analyze the impact of spoils deposition on resources protected by EFSC standards, including land use.

As used in this section, the phrase "the area within X of the site" includes the site itself and all land within that distance of the site boundaries. The analysis areas are as follows:

For geological conditions and soil stability, OAR 345-021-0010(1)(h), the site and immediate vicinity, including docking facilities and pipeline corridors.

For soil types OAR 345-021-0010(1)(i), the site and immediate vicinity, including docking facilities and pipeline corridors.

For land use, OAR 345-021-0010(1)(k), the facility site, docking areas and offshore areas where dredging is proposed.

For protected areas, OAR 345-021-0010(1)(l), the area within 20 miles of the site.

For fish and wildlife habitat, OAR 345-021-0010(1)(p), see the ODFW recommendations summarized at section II.4 of this order and described in detail in the ODFW January 28, 2005 letter. These recommendations also apply to impact on threatened and endangered fish and wildlife species.

For threatened and endangered plant species (OAR 603-073-0070), OAR 345-021-0010(1)(q), the area within one hundred of the site. In this context, “threatened and endangered plant species” means species listed as threatened or endangered by the state under ORS 564.105 and by the federal government at 16 USC section 1533. (see section II, footnote 1)

For scenic and aesthetic impact, OAR 345-021-0010(r), the area within five miles of the site.

For historic and cultural resources, OAR 345-021-0010(s), the area within the proposed site.

For recreation impacts, OAR 345-021-0010(t), see the ODFW recommendations summarized at section II of this order and discussed in detail in ODFW’s January 28, 2005 letter.

For impacts on services analyzed in Exhibit U under OAR 345-021-0010(u), the area within 20 miles of the site.

VIII. USE OF ENVIRONMENTAL IMPACT STATEMENT

If a federal agency will review the facility under the National Environmental Policy Act (NEPA), ORS 469.370(13) directs the Council to conduct its review in a manner that is consistent with and does not duplicate federal agency review. This includes Council use of information in the documents prepared for the federal agency review. OAR 345-021-0010(3) states that:

“***the applicant may copy relevant sections of such documents [the EIS] into the appropriate exhibits of the site certificate application. The applicant may otherwise submit full copies of those documents and include, in the appropriate exhibits of the site certificate application, cross-references to the relevant sections of those documents. The applicant may use such documents only to avoid duplication. The applicant shall include additional information in the site certificate application as needed to meet the requirements of section (1) of this rule.”

In summary, the application can use information in the EIS to demonstrate compliance with the EFSC standards at OAR 345 Divisions 22, 23 and 24 and other applicable state and local regulations. However, if additional information outside the EIS is needed to show compliance with such regulations, the application needs to include that additional information.

IX. DATE APPLICATION MAY BE SUBMITTED (OAR 345-021-000(2))

You may submit an Application for Site Certificate any time after this Project Order is issued.

X. EXPIRATION DATE (OAR 345-015-0160(1)(j))

Pursuant to OAR 345-20-060(1) this Project Order shall expire 18 months following the date this Project Order is issued. The date of expiration is September 24, 2006. The holder of this Project

Order may petition the Council to extend the duration of the NOI for Jordan Cove Energy Project beyond September 24, 2006 as provided in OAR 345-20-060.

If an application for the facility for which this Project Order is issued has not been submitted prior to September 24, 2006 or the date of any extension granted by the Council, a new NOI must be submitted for the facility in order to satisfy ORS 469.330.

Failure to include an applicable statute, rule, ordinance, permit or other requirement in this Project Order shall not render that statute, rule, ordinance, permit or other requirement inapplicable, nor in any way relieve applicant from the duty to comply with the same.

David Stewart-Smith, Asst. Director
Oregon Department of Energy

Date: _____