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

IN THE MATTER OF THE APPLICATION)
FOR A SITE CERTIFICATE FOR THE) FINAL ORDER
COLUMBIA ETHANOL PROJECT)

Issued by
Oregon Energy Facility Siting Council
625 Marion Street NE
Salem Oregon 97301-3742

July 2, 2007

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1 **TABLE OF ACRONYMS AND ABBREVIATIONS**
2

3	Applicant	Pacific Ethanol Columbia, LLC
4	ASC	Application for Site Certificate
5	BLM	Bureau of Land Management
6	Btu	British thermal units
7	CEP	Columbia Ethanol Project
8	cfs	cubic feet per second
9	Council	Energy Facility Siting Council
10	DOGAMI	Oregon Department of Geology and Mineral Industries
11	DSL	Oregon Department of State Lands
12	EFSC	Energy Facility Siting Council
13	EPC	Engineering, Procurement and Construction
14	gpd	gallons per day
15	gpm	gallons per minute
16	KW	kilowatt
17	kwh	kilowatt hour
18	kV	kilovolt
19	LCDC	Land Conservation and Development Commission
20	MW	megawatt
21	NOI	Notice of Intent
22	NPDES	National Pollutant Discharge Elimination System
23	OAR	Oregon Administrative Rules
24	ODA	Oregon Department of Agriculture
25	ODEQ	Oregon Department of Environmental Quality
26	ODFW	Oregon Department of Fish and Wildlife
27	ODOE	Oregon Department of Energy (or the “Department”)
28	OPUC	Oregon Public Utility Commission
29	ORS	Oregon Revised Statutes
30	PEC	Pacific Ethanol Columbia, LLC
31	RAI	Request for Additional Information
32	SHPO	State Historic Preservation Officer
33	USDOT	U. S. Department of Transportation
34	USFWS	U. S. Fish and Wildlife Service
35	USFS	U. S. Forest Service
36	WPCF	Water Pollution Control Facilities
37	WRD	Oregon Water Resources Department

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FINAL ORDER
COLUMBIA ETHANOL PROJECT

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I. INTRODUCTION

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The Energy Facility Siting Council (Council) issues this final order pursuant to Oregon Revised Statutes ("ORS") 469.370. This final order addresses the Application for a Site Certificate ("ASC" or the "application") for the construction of an ethanol plant capable of producing 35 million gallons per year of ethanol. The facility would be known as the Columbia Ethanol Project (the "CEP" or the "facility") and would be located on leased land within the Port of Morrow's Boardman Industrial Park, Morrow County, Oregon.

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Pacific Ethanol Columbia, LLC ("PEC" or "applicant"), a subsidiary of Pacific Ethanol, Inc., submitted the application on October 2, 2006.

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The Council bases this final order on its review of the ASC and the comments and recommendations on the ASC by state agencies, local governments, Indian tribes, and the public.

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The CEP is unusual in that construction began in May of 2006, over four months before the application for site certificate was submitted. The applicant began construction under an exemption from site certificate requirements created by ORS 469.300(11)(a)(G). The exemption is subject to the premise that no more than 10% of the facility output will be shipped by truck. Pacific Ethanol obtained the exemption based on this premise, but now requests a site certificate to allow product shipment by any means.

With certain exceptions, no plant which converts biomass to a gas, liquid or solid product, or combination of such products, intended to be used as a fuel and if any one of such products is capable of being burned to produce the equivalent of six billion Btu of heat a day, may be constructed or operated in Oregon without first obtaining a site certificate from the Oregon Energy Facility Siting Council ("EFSC" or the "Council"). ORS 469.300(11)(a)(G) and ORS 469.320.

It is the public policy of the State of Oregon that "the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety and in compliance with the energy policy and air, water, solid waste, land use and other environmental protection policies of this state." ORS 469.310.

The Council must ensure that the site certificate contains "conditions for the protection of the public health and safety, for the time for completion of construction, and to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS 469.503." ORS 469.401(2).

A site certificate issued by the Council binds the state and all counties, cities, and political subdivisions of Oregon as to the approval of the site and the construction and operation of the facility. Once the Council issues the site certificate, the responsible state agency or local

1 government must issue any necessary permits that are addressed in the site certificate without
2 further proceedings upon payment of appropriate fees by the certificate holder. ORS 469.401(3).

3
4 ODOE reviewed the application and the comments of reviewing agencies and affected
5 local governments and tribes identified in accordance with Oregon Administrative Rules
6 ("OAR") 345-021-0050. It also reviewed public comments. Based upon the discussion and
7 conclusions contained in this final order, the Council grants the site certificate for CEP, subject
8 to the conditions stated in this final order.

9
10 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this final
11 order. The following terms, paraphrased from the rule, are used frequently throughout this final
12 order:

- 13
14 • “Energy facility” means the ethanol plant. The term “energy facility” does not
15 include any related or supporting facility. If a reference is intended to apply to
16 both the energy facility and its related or supporting facilities, the term “facility”
17 is used.
- 18
19 • “Energy facility site” means all land upon which an energy facility is located or
20 proposed to be located.
- 21
22 • “Facility” means an energy facility, together with any related or supporting
23 facilities.
- 24
25 • “Related or supporting facility” means any structure to be built in connection with
26 the energy facility, including but not limited to pipeline valves, regulators,
27 compressors, vaults, enclosures, switching stations, substations, associated
28 equipment, associated transmission lines, reservoirs, intake structures, road and
29 rail access, pipelines, barge basins, office or public buildings, construction
30 laydown, staging and parking areas, and commercial and industrial structures or
31 other structures proposed by the applicant to be constructed or substantially
32 modified in connection with the construction or operation of the energy facility.
33 “Related or supporting facility” does not include any structure existing prior to
34 construction of the energy facility, unless such structure must be significantly
35 modified solely to serve the energy facility.
- 36
37 • “Related or supporting facilities site” means all land upon which related or
38 supporting facilities for an energy facility are located or proposed to be located,
39 including any linear rights-of-way.
- 40
41 • “Site” means all land upon which a facility is located or proposed to be located.
42

1 **II. PROCEDURAL HISTORY**

2
3 On March 3, 2006, Pacific Ethanol, Inc. (“PEI”), submitted to ODOE a Notice of Intent
4 (“NOI”) to apply to build an ethanol production facility to be called the Pacific Ethanol Facility
5 at the Boardman Industrial Park, Morrow County, Oregon.
6

7 On March 6, 2006, ODOE prepared the memorandum described in OAR 345-015-0120
8 and directed PEI to distribute it, together with a copy of the NOI, to the officers, agencies and
9 tribes described in OAR 345-020-0040. ODOE requested comments from agencies, tribes and
10 local governments by April 7, 2006. ODOE received comments from the Morrow County
11 Planning Department, the Department of Geology and Mineral Industries (“DOGAMI”), the
12 Oregon Department of Fish and Wildlife (“ODFW”), and the State Historic Preservation Office
13 (“SHPO”). All comments were provided to the applicant.
14

15 On March 6, 2006, ODOE mailed a public notice describing the proposed facility to the
16 Council’s general mailing list and requesting comments by April 7, 2006.
17

18 On March 20, 2006, ODOE held a public information meeting on the NOI at the Port of
19 Morrow conference center. No person in attendance at that meeting raised any concerns about
20 the Pacific Ethanol Facility. The only comment ODOE received during the public comment
21 period on the NOI was a letter of support from the Port of Morrow. On April 28, 2006, ODOE
22 issued the project order based on the NOI and the comments from the state and local agencies.
23

24 On April 19, 2006, PEI submitted an application for exemption from the requirement to
25 obtain an energy facility site certificate for the proposed Pacific Ethanol Facility. In that
26 application, PEI stated it would qualify for the exemption because it would satisfy the criteria for
27 exemption outlined in ORS 469.300(11)(a)(G), including the requirement that at least 90% of the
28 synthetic fuel would be used in an industrial or refueling facility located within one mile of the
29 facility or would be transported from the facility by rail or barge.
30

31 On May 19, 2006, the Energy Facility Siting Council (“EFSC”) approved PEI’s
32 exemption request, making note of the fact that if PEI wished to ship more than 10% of its
33 ethanol product by truck, then the facility would no longer meet the exemption criteria and must
34 first obtain an energy facility site certificate. PEI began construction of the facility during the last
35 half of May 2006.
36

37 On October 2, 2006, Pacific Ethanol Columbia, LLC (“PEC”), a subsidiary of PEI,
38 submitted to ODOE its application for a site certificate for the facility, now called the Columbia
39 Ethanol Project (“CEP”). In that application, PEC described the facility as an ethanol plant that
40 would produce 35 million gallons per year (“MMgy”) of ethanol. Because contracts for the
41 ethanol purchase had not been signed, it was possible that less than 90% of the ethanol would be
42 shipped by rail or barge, in which case PEC would not qualify for the exemption approved by
43 EFSC on May 19, 2006, and it would be necessary for PEC to obtain a site certificate for the
44 facility. PEC stated that “[I]f a site certificate is not issued, Columbia Ethanol will either operate
45 a sub-jurisdictional plant that produces up to 27 MMgy, or produce only as much ethanol as can
46 be shipped by rail or barge, plus approximately 10%.”

1
2 On receipt of the PEC application for site certificate, ODOE issued the letter described at
3 OAR 345-015-0180. With this letter as a cover, ODOE distributed copies of the application to
4 state agencies, local governments and tribes listed at OAR 345-020-0040. ODOE asked the
5 agencies, tribes and local governments to comment on the application by November 15, 2006.
6 Specifically, ODOE asked for comments on whether or not the application was complete, and
7 what if any additional information was needed. ODOE received comments requesting additional
8 information from the Department of Fish and Wildlife (ODFW), the State Historic Preservation
9 Office (SHPO), and Morrow County.

10
11 On November 17, 2006, ODOE issued a Request for Additional Information (RAI) to
12 PEC. ODOE directed PEC to respond to comments from ODFW and SHPO. ODOE also
13 requested additional information on applicable standards, in particular the DEQ Noise standard
14 and the EFSC Retirement and Financial Assurance Standard.

15
16 In response to the RAI, PEC submitted a supplement on January 15, 2007. The
17 supplement included a biological assessment of the barge loading facility, a federal wetlands
18 permit application submitted for the barge facility, archeological survey results, the wastewater
19 discharge permit held by the City of Boardman, a detailed estimate of retirement cost, and a
20 revised Figure C-2 showing the location of the proposed ethanol pipe. ODOE distributed the
21 supplement to ODFW and SHPO, the agencies that had requested the additional information.
22 PEC's January 15, 2007 supplement is considered part of the application for site certificate.

23
24 After reviewing the supplement, ODOE received further additional information requests
25 from SHPO. The SHPO concerns were resolved based on further correspondence between SHPO
26 and the applicant. That correspondence is considered part of the CEP application for purposes of
27 filing. ODOE concerns regarding retirement cost were resolved in a revised cost estimate
28 provided by PEC, also considered part of the complete application.

29
30 On February 26, 2007, ODOE determined that the application was complete and filed.
31 ODOE issued the notice to state agencies, tribes and affected local governments described at
32 OAR 345-015-0200. In the notice ODOE requested comments on compliance with applicable
33 standards and permitting requirements by March 29, 2007.

34
35 One agency, DOGAMI, requested further information. PEC's geology consultant
36 provided the requested information in a report dated March 16, 2007. DOGAMI commented that
37 the GRI report was acceptable, but noted that the information in the application must match the
38 report. The GRI report of March 16, 2007 is considered part of the completed application.

39
40 ODFW commented that it was working directly with the applicant on final habitat
41 mitigation conditions. The Boardman Fire Dept. commented by telephone that it would like a
42 common ethanol pipeline route to be shared by the different ethanol production facilities
43 proposed for the Port of Morrow. No other agency, local government or tribe commented on the
44 filed application.

1 On February 26, 2007, ODOE issued the public notice of filed application described at
2 OAR 345-015-0190. ODOE mailed the notice to the Council's general mailing list, adjacent
3 property owners, and interested persons, and placed public notice in the East Oregonian, the
4 newspaper of general circulation in the Boardman area. ODOE requested comments from the
5 public by March 29, 2007. No member of the public commented.
6

7 On April 16, 2007, ODOE issued a Draft Proposed Order recommending approval of the
8 application for site certificate, subject to the conditions stated in this final order. ODOE mailed
9 out notice on April 16, 2007 to persons on the Council's general mailing list and to the list of
10 affected property owners for this project, as described in OAR 345-015-0220(2) and (3). ODOE
11 also placed this notice in the East Oregonian newspaper. In the notice, ODOE announced a
12 public hearing to be held at the Port of Morrow offices in Boardman, OR on May 9, 2007. The
13 notice stated that May 9, 2007 was the deadline for public comments. The notice stated that any
14 person who did not comment on the record of the hearing on the draft proposed order was
15 precluded from participation in the contested case, and that any issue not raised on the record of
16 the hearing on the draft proposed order was precluded from consideration in the contested case.
17

18 On May 9, 2007, the hearing on the Draft Proposed Order was held at the Port of Morrow
19 in Boardman OR. Mr. John Burgess presided. Three individuals commented. One was Carla
20 McClain, Morrow County Planning Director, who recommended that the Council approve the
21 project. Two persons from United Steel Workers (USW), Richard Rodgers and Gavin Prescott,
22 commented in person and in a letter dated May 9, 2007. In their comments, USW stated that the
23 applicant did not meet the Organizational Expertise Standard because the same company was
24 under investigation by the US Department of Labor for alleged Occupational Safety and Health
25 violations at an ethanol production plant in Colorado, in which Pacific Ethanol holds a 42%
26 interest. USW further questioned whether safety requirements would be met for the trucks that
27 this project would cause to be on the road. Finally, USW asked that the Council withhold any
28 decision on whether or not to issue a site certificate until the US Department of Labor has
29 adjudicated the allegations in Colorado. USW noted that the US Department of Labor
30 adjudication could take a long time, although they had no information or estimate as to how long
31 that adjudication would take. Patrick Young, from USW's Pittsburgh Pennsylvania office also
32 commented by email, sending the same May 9, 2007 letter as Mr. Rodgers and Mr. Prescott.
33

34 Regarding the comment on the safety of shipments by truck, the applicant has not
35 claimed that it will supervise the trucking companies once trucks are on the road. Those trucks
36 are subject to regulations of the Department of Transportation and are not Energy Facilities
37 subject to EFSC jurisdiction. For this reason, ODOE did not recommend any findings or
38 recommendations on this issue that are different from those in the Draft Proposed Order.
39

40 On May 10, 2007, the Council reviewed the Draft Proposed Order at a meeting in
41 Boardman, as described at OAR 345-015-0230. The Council noted the testimony received at the
42 May 9 hearing and received copies of the written testimony filed by USW.
43

44 On May 21, 2007 ODOE issued the Proposed Order required under OAR 345-015-
45 0230(2). ODOE did not recommend findings or conclusions different from those in the Draft
46 Proposed Order. ODOE did not recommend that the Council withhold a decision until the US

1 Department of Labor adjudication is complete. The Council is obliged to issue its decision within
2 the statutory timelines of ORS 469. The statute does not state that the Council should suspend
3 the siting process while waiting for the outcome of a federal agency investigation. Rather, the
4 Council should make its decision based on the record of its own proceeding.
5

6 On May 21, 2007 ODOE issued the Notice of Contested Case on the proposed order, as
7 described in OAR 345-015-0014. The notice stated that the Hearing Officer must receive all
8 petitions for party status in the contested case by 5:00 p.m. Thursday June 7, 2007.
9

10 The Hearing Officer received no petitions for party status. Therefore, on June 12, 2007
11 the Hearing Officer issued an order closing the contested case. The Council held its final
12 meeting to decide on the application for site certificate by conference call on July 2, 2007.
13

14 In reviewing the application, the Council considered the entire facility, not just the
15 incremental impact of shipping more than 10% of product by truck. Therefore, the findings,
16 conclusions and conditions included in this order apply to the entire facility, including the
17 portion of the facility on which the applicant began construction prior to issuance of this order.
18

19 **III. GENERAL FINDINGS**

20 **A DESCRIPTION OF THE FACILITY**

21 **1. The Energy Facility**

22 The energy facility is an ethanol plant capable of producing 35 million gallons per year
23 (MMgy) of ethanol located on a 25-acre parcel in the Boardman Industrial Park, Port of Morrow,
24 Morrow County, Oregon. Major plant components consist of buildings, storage tanks and bins.
25 By means of an existing rail loop, corn will be delivered to the site. In the processing building,
26 ground corn will be mixed with water and enzymes to make a mash, and the mash will be cooked
27 in a series of retention tanks to break the complex sugars down into fermentable sugars. The
28 processing building will house steel storage tanks for aqueous ammonia, enzymes, sulfuric acid,
29 sodium hydroxide, and urea.
30
31
32

33 In the fermentation building, yeast and additional enzymes will be added to the mash,
34 producing a liquid containing 10 to 20% ethanol, by weight. The liquid will be piped to the
35 distillation, drying and evaporation (DD&E) building where the solids (a by-product called
36 distiller's wet grain that would be suitable for animal feed) will be separated and transported to a
37 wet cake building for storage and ultimate trucking to local dairy or cattle operations for use as
38 feed. The liquid ethanol will be moved to ethanol storage tanks pending shipment to market by
39 barge, rail or truck.
40

41 Additional plant components include grain storage bins, an administration building, a
42 boiler building, a maintenance building, ethanol storage tanks, a diesel fuel storage tank, and a
43 gasoline tank.
44

45 The facility is currently under construction pursuant to an exemption granted by the
46 Council on May 19, 2006. Consequently, this order does not include certain conditions ordinarily

1 requiring satisfaction by the certificate holder in advance of beginning construction of a
2 proposed facility.

3
4 **2. Related or Supporting Facilities**

5 The facility includes the following related or supporting facilities:
6

7 **NATURAL GAS PIPELINE**

8 Natural gas for operation of the plant boilers will be provided by means of a 1,700-foot,
9 4-inch diameter carbon steel pipeline interconnecting with the existing Cascade Natural Gas
10 system. The pipeline is installed underground along Columbia Lane on property owned by the
11 Port of Morrow.
12

13 **ELECTRIC POWER SUPPLY LINE**

14 Electricity for operation of the energy facility will be provided by means of a 13.5-kV,
15 1,700-foot power supply line interconnecting with the existing Umatilla Electric Cooperative
16 system. The power supply line is mounted on 40-foot wood poles spaced at about 300 feet and
17 located along Columbia Lane on property owned by the Port of Morrow.
18

19 **ETHANOL PIPELINE**

20 PEC proposes to transport some of the ethanol produced at the energy facility by barge
21 from an existing barge-loading facility operated by Tidewater, Inc. In order to move the ethanol
22 to the barge-loading facility, PEC proposes to install a 2,500-foot, 8-inch diameter welded steel
23 pipeline from the energy facility to the barge-loading facility. After leaving the production plant,
24 the pipeline would be installed underground at a depth of at least 3½ feet until it crosses the right
25 of way for the existing Union Pacific rail line. It will cross the rail line by underground bore.
26 North of the rail line, the pipeline will be placed above ground on footings in order to avoid a
27 potential archeological site. Its entire corridor is located on property owned by the Port of
28 Morrow, and would require no new right-of-way. PEC would be responsible for construction of
29 about 2,200 feet of the pipeline (up to the high water line of the Columbia River). Tidewater,
30 Inc., would be responsible for obtaining necessary permits and constructing the remaining 300
31 feet of the pipeline for connection with the barge-loading facility.
32

33 **B. LOCATION OF THE FACILITY**
34

35 **1. The Energy Facility Site**

36 The energy facility is located on a 25-acre parcel of land in Section 2, Township 4 North,
37 Range 25 East, Morrow County, Oregon. This parcel comprises a portion of the Boardman
38 Industrial Park owned and operated by the Port of Morrow.
39

40 **2. Related or Supporting Facility Sites**
41

42 **Natural Gas Pipeline Corridor.** The natural gas pipeline is 4 inches in diameter and
43 connects the energy facility to the existing Cascade Natural Gas system about 1,700 feet from the
44 energy facility. The natural gas pipeline is installed along Columbia Lane on property owned by
45 the Port of Morrow in Sections 2 and 11, Township 4 North, Range 25 East, Morrow County,
46 Oregon.

1
2 **Electric Power Supply Line Corridor.** The electric power supply line is mounted on
3 40-foot wood poles and connects the energy facility to the existing Umatilla Electric Cooperative
4 system about 1,700 feet from the energy facility. The electric power supply line is installed along
5 Columbia Lane on property owned by the Port of Morrow in Sections 2 and 11, Township 4
6 North, Range 25 East, Morrow County, Oregon.

7
8 **Ethanol Pipeline Corridor.** The ethanol pipeline will be 8 inches in diameter and will
9 connect the energy facility to an existing barge-loading facility on the Columbia River about
10 2,500 feet from the energy facility. The barge-loading facility is operated by Tidewater, Inc. PEC
11 will be responsible for installing the ethanol pipeline from the energy facility to a point about
12 2,200 feet from the energy facility, and Tidewater, Inc., will be responsible for installing the
13 remaining 300 feet to the point of interconnection with the barge-loading facility. The 2,200-foot
14 length of ethanol pipeline to be installed by PEC will be installed on property owned by the Port
15 of Morrow in Section 2, Township 4 North, Range 25 East, Morrow County, Oregon.

16
17 **IV. COUNCIL FACILITY SITING STANDARDS: DISCUSSION & CONCLUSIONS**

18
19 **A. INTRODUCTION: GENERAL STANDARD OF REVIEW, OAR 345-022-0000**

20 (1) *To issue a site certificate for a proposed facility or to amend a site*
21 *certificate, the Council shall determine that the preponderance of evidence*
22 *on the record supports the following conclusions:*

23 (a) *The facility complies with the requirements of the Oregon Energy*
24 *Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590*
25 *to 469.619, and the standards adopted by the Council pursuant to*
26 *ORS 469.501 or the overall public benefits of the facility outweigh*
27 *the damage to the resources protected by the standards the facility*
28 *does not meet as described in section (2);*

29 (b) *Except as provided in OAR 345-022-0030 for land use compliance*
30 *and except for those statutes and rules for which the decision on*
31 *compliance has been delegated by the federal government to a*
32 *state agency other than the Council, the facility complies with all*
33 *other Oregon statutes and administrative rules identified in the*
34 *project order, as amended, as applicable to the issuance of a site*
35 *certificate for the proposed facility. If the Council finds that*
36 *applicable Oregon statutes and rules, other than those involving*
37 *federally delegated programs, would impose conflicting*
38 *requirements, the Council shall resolve the conflict consistent with*
39 *the public interest. In resolving the conflict, the council cannot*
40 *waive any applicable state statute.*

41
42 ***

43
44 (4) *In making determinations regarding compliance with statutes, rules and*
45 *ordinances normally administered by other agencies or compliance with*
46 *requirements of the Council statutes if other agencies have special*

1 *expertise, the [Department] of Energy shall consult with such other*
2 *agencies during the notice of intent, site certificate application and site*
3 *certificate amendment processes. Nothing in these rules is intended to*
4 *interfere with the state's implementation of programs delegated to it by the*
5 *federal government.*
6

7 Section (1)(a) of this standard requires compliance with the EFSC Standards of Oregon
8 Administrative Rule OAR Chapter 345 Division 22. Findings regarding compliance with these
9 standards are found in sections IV.B through IV.O of this order.
10

11 Section (1)(b) of this standard requires compliance with rules and statutes of other
12 agencies as identified in the Project Order. The Project Order identifies water rights issued by the
13 Water Resources Department and the water pollution control facilities (WPCF) permits issued by
14 Department of Environmental Quality as permits under EFSC jurisdiction. For the CEP, Pacific
15 Ethanol will rely on the Port of Morrow to provide waster and wastewater discharge service.
16 These permits are therefore considered third party permits and are addressed in discussion of the
17 Council's Organizational Expertise Standard. Other rules and statues of other agencies identified
18 in the Project Order are discussed in specific sections of this order related to EFSC standards,
19 found in sections IV.B though IV.O of this order.
20

21 Sections (2) and (3) of the standard (omitted for brevity) address "balancing", where the
22 Council may issue a site certificate for a facility that does not meet one or more of its standards.
23 Pacific Ethanol does not request a balancing analysis and proposes to meet all applicable
24 standards outright. These sections are therefore not applicable.
25

26 Section (4) requires the Department to consult with other agencies that have special
27 expertise. All findings of compliance in this order were made after consultation with the
28 agencies, tribes and affected local governments listed at OAR 345-020-0040.
29

30 **B. ORGANIZATIONAL EXPERTISE, OAR 345-022-0010**

31 This standard has four paragraphs. Two paragraphs, OAR 345-022-0010(1) and OAR
32 345-022-0010(2), relate to the applicant's qualification and capability. The other two paragraphs,
33 OAR 345-22-0010(3) and OAR 345-022-0010(4), relate to third party permits.
34

35 **1. Applicant Qualification and Capability, OAR 345-022-0010(1)**

36 *To issue a site certificate, the Council must find that the applicant has the*
37 *organizational expertise to construct, operate and retire the proposed facility in*
38 *compliance with Council standards and conditions of the site certificate. To*
39 *conclude that the applicant has this expertise, the Council must find that the*
40 *applicant has demonstrated the ability to design, construct and operate the*
41 *proposed facility in compliance with site certificate conditions and in a manner*
42 *that protects public health and safety and has demonstrated the ability to restore*
43 *the site to a useful, non-hazardous condition. The Council may consider the*
44 *applicant's experience, the applicant's access to technical expertise and the*
45 *applicant's past performance in constructing, operating and retiring other*

1 *facilities, including, but not limited to, the number and severity of regulatory*
2 *citations issued to the applicant.*

3
4 **Discussion**

5 PEC is a subsidiary of Pacific Ethanol, Inc. (“PEI”). PEI is the developer of two existing
6 ethanol production plants: a 35-MMgy ethanol plant in Madera, California, and the 40-MMgy
7 Front Range Energy ethanol project in Windsor, Colorado. PEI would provide the organizational
8 experience and expertise to construct and operate the energy facility.

9
10 Project participants from PEI have over 10 years of experience in construction,
11 operations and marketing, largely associated with ethanol plants.

12
13 PEI has not received regulatory citations or stop work orders in connection with the
14 construction or operation of the Madera, California, or Windsor, Colorado, ethanol plants.

15
16 Delta-T is the project engineer for construction of the facility. Delta-T was established in
17 1984, and its technologies for drying and purifying industrial-grade alcohol are operating at 50
18 installations worldwide.

19
20 To find that PEC complies with OAR 345-022-0010(1), the Council adopts the following
21 standard conditions in the site certificate:

22
23 **(IV.B.1) The certificate holder shall report promptly to the Department any**
24 **change in its corporate relationship with Pacific Ethanol, Inc. The**
25 **certificate holder shall report promptly to the Department any change**
26 **in its access to the resources, expertise and personnel of Pacific**
27 **Ethanol, Inc., and Delta-T.**

28
29 **(IV.B.2) If the certificate holder chooses a third-party contractor to operate**
30 **the facility, the certificate holder shall submit to the Council the**
31 **identity of the contractor so the Council may review the qualifications**
32 **and capability of the contractor to meet the standards of OAR 345-**
33 **0022-0010. If the Council finds that a new contractor meets these**
34 **standards, the Council shall not require an amendment to the site**
35 **certificate for the certificate holder to hire the contractor.**

36
37 **(IV.B.3) Any matter of non-compliance under the site certificate shall be the**
38 **responsibility of the certificate holder. Any notice of violation issued**
39 **under the site certificate shall be issued to the certificate holder. Any**
40 **civil penalties assessed under the site certificate shall be levied on the**
41 **certificate holder.**

42
43 **(IV.B.4) The certificate holder shall contractually require the EPC contractor**
44 **and all independent contractors and subcontractors involved in the**
45 **construction and operation of the facility to comply with all applicable**
46 **laws and regulations and with the terms and conditions of the site**

1 certificate. Such contractual provision shall not operate to relieve the
2 certificate holder of responsibility under the site certificate.

3
4 **(IV.B.5) The certificate holder shall obtain, or shall ensure that its contractors**
5 **obtain, necessary state and local permits or approvals required for the**
6 **construction, operation and retirement of the facility.**
7

8 The Council finds that, subject to the conditions stated in this final order, PEC has
9 demonstrated the ability to design, construct and operate the facility in compliance with site
10 certificate conditions and in a manner that protects public health and safety and that PEC has
11 demonstrated the ability to restore the site to a useful, non-hazardous condition.
12

13 **2. Applicant Qualification and Capability: ISO Programs, OAR 345-022-0010(2)**
14 *The Council may base its findings under section (1) on a rebuttable presumption*
15 *that an applicant has organizational, managerial and technical expertise, if the*
16 *applicant has an ISO 9000 or ISO 14000 certified program and proposes to*
17 *design, construct and operate the facility according to that program.*
18

19 **Discussion**

20 PEC did not submit evidence of ISO certification and has not requested a rebuttable
21 presumption of expertise pursuant to OAR 345-22-0010(2).
22

23 **3. Third-Party Services and Permits: Contracts, OAR 345-022-0010(3)**
24 *If the applicant does not itself obtain a state or local government permit or*
25 *approval for which the Council would ordinarily determine compliance but*
26 *instead relies on a permit or approval issued to a third party, the Council, to issue*
27 *a site certificate, must find that the third party has, or has a reasonable likelihood*
28 *of obtaining, the necessary permit or approval, and that the applicant has, or has*
29 *a reasonable likelihood of entering into, a contractual or other arrangement with*
30 *the third party for access to the resource or service secured by that permit or*
31 *approval.*
32

33 **Discussion**

34 PEC intends to rely on Tidewater, Inc., to obtain all required authorizations for
35 construction of the ethanol pipeline from the Ordinary High Water (OHW) line of the Columbia
36 River to the point of its attachment to the barge-loading facility, including the Rivers and
37 Harbors Act, Section 10, permit from the Corps of Engineers. In its application, PEC included a
38 copy of Tidewater's Joint Permit Application Form. PEC has also provided evidence that it has
39 entered into a contract with Tidewater, Inc., to make use of the barge-loading facility for ethanol
40 transportation.
41

42 PEC will purchase water for facility operations from the Port of Morrow under its
43 existing water right. The Port has provided a list of its current tenants and their water
44 requirements, demonstrating that there is enough water available to meet the needs of Pacific
45 Ethanol and other industrial tenants at the Port.
46

1 PEC will discharge wastewater to the City of Boardman, using the existing Water
2 Pollution Control Facilities (WPCF) permit held by the Port of Morrow. A copy of the WPCF
3 permit is included in the Application as Attachment E to PEC’s January 15, 2007 RAI response.
4 The Port of Morrow has applied to DEQ to modify its WPCF permit to include the output from
5 CEP.¹
6

7 **4. Third-Party Services and Permits: Conditions, OAR 345-022-0010(4)**

8 *If the applicant relies on a permit or approval issued to a third party and the third*
9 *party does not have the necessary permit or approval at the time the Council*
10 *issues the site certificate, the Council may issue the site certificate subject to the*
11 *condition that the certificate holder shall not commence construction or operation*
12 *as appropriate until the third party has obtained the necessary permit or approval*
13 *and the applicant has a contract or other arrangement for access to the resource*
14 *or service secured by that permit or approval.*
15

16 **Discussion**

17 PEC intends to rely on Tidewater, Inc., to obtain all required authorizations for
18 construction of the ethanol pipeline from the Ordinary High Water (OHW) line of the Columbia
19 River to the point of its attachment to the barge-loading facility, including the Rivers and
20 Harbors Act, Section 10, permit from the Corps of Engineers. In its application, PEC included a
21 copy of Tidewater’s Joint Permit Application Form and provided evidence that it has a contract
22 or other agreement with Tidewater, Inc., to make use of the barge-loading facility for ethanol
23 transportation.
24

25 To find that PEC complies with OAR 345-022-0010(4), the Council adopts the following
26 conditions in the site certificate:
27

28 **(IV.B.6) Prior to construction of the PEC portion of the ethanol pipeline that**
29 **will connect CEP to the Tidewater ethanol pipeline, the certificate**
30 **holder shall demonstrate to the Energy Facility Siting Council**
31 **(“Council”) that Tidewater, Inc., has obtained all necessary permits**
32 **and approvals for construction of the ethanol pipeline from the**
33 **Ordinary High Water (“OHW”) line of the Columbia River to its**
34 **point of attachment with the barge-loading facility.**
35

36 **(IV.B.7) Prior to commercial operation, the certificate holder shall provide the**
37 **Council with documentation showing that DEQ has modified the Port**
38 **of Morrow’s WPCF permit to include the wastewater discharge from**
39 **the CEP.**
40

41 **Conclusion**

42 The Council finds that, subject to the conditions stated in this final order, PEC meets the
43 organizational expertise standard, OAR 345-022-0010.
44

¹ Email 3/28/2007 from Gary Neal, Port of Morrow, to Dana Siegfried, DEA Associates.

1 **C. RETIREMENT AND FINANCIAL ASSURANCE, OAR 345-022-0050**

2 *To issue a site certificate, the Council must find that:*

- 3 (1) *The site, taking into account mitigation, can be restored adequately to a*
4 *useful, non-hazardous condition following permanent cessation of*
5 *construction or operation of the facility.*
6 (2) *The applicant has a reasonable likelihood of obtaining a bond or letter of*
7 *credit in a form and amount satisfactory to the Council to restore the site*
8 *to a useful, non-hazardous condition.*
9

10 **Discussion**

11 This section addresses the requirement for restoration of the site to a useful, non-
12 hazardous condition following permanent cessation of construction or operation of the facility,
13 the amount of financial assurance the Council should require, and PEC's ability to offer such
14 financial assurance.
15

16 **Retirement.** For the purposes of the retirement and financial assurance standard, a
17 "useful, non-hazardous condition" is a condition consistent with the applicable local
18 comprehensive land use plan and land use regulations. The energy facility and all related or
19 supporting facilities would be sited in an area currently zoned for industrial use.
20

21 The estimated useful life of the energy facility is 30 years. At the end of its useful life,
22 PEC would retire the energy facility in accordance with the approved retirement plan and in
23 compliance with all laws and regulations in effect at the time of retirement.
24

25 Site restoration would consist primarily of dismantling and removing structures and
26 restoring the site to a condition suitable for industrial use. In its application, PEC provided
27 evidence that the Port of Morrow has agreed that upon retirement of the facility the Port would
28 allow PEC to leave any concrete at slab grade and would allow PEC to leave any utilities in
29 place. Two years before the date on which PEC expects to permanently shut down the energy
30 facility, it would develop and submit to the Council a site restoration plan for its approval.
31

32 To find that PEC complies with OAR 345-022-0050(1), the Council adopts the following
33 standard conditions in the site certificate:
34

35 **(IV.C.1) The certificate holder shall retire the facility if the certificate holder**
36 **permanently ceases construction or operation of the facility. The**
37 **certificate holder shall retire the facility according to a final**
38 **retirement plan approved by the Council, as described in OAR 345-**
39 **027-0110, and prepared pursuant to Condition (IV.C.2).**
40

41 **(IV.C.2) Two years before closure of the energy facility, the certificate holder**
42 **shall submit to the Department a proposed final retirement plan for**
43 **the facility and site, pursuant to OAR 345-027-0110, including:**
44 **(a) A plan for retirement that provides for completion of**
45 **retirement within two years after permanent cessation of**

1 operation of the energy facility and that protects the public
2 health and safety and the environment;

- 3 (b) A description of actions the certificate holder proposes to take
4 to restore the site to a useful, non-hazardous condition suitable
5 for agricultural use; and
6 (c) A detailed cost estimate, a comparison of that estimate with the
7 dollar amount secured by a bond or letter of credit and any
8 amount contained in a retirement fund, and a plan for assuring
9 the availability of adequate funds for completion of retirement.

10
11 (IV.C.3) The certificate holder shall prevent the development of any conditions
12 on the site that would preclude restoration of the site to a useful, non-
13 hazardous condition to the extent that prevention of such site
14 conditions is within the control of the certificate holder.

15
16 The Council finds that PEC has demonstrated it can adequately restore the site to a
17 useful, non-hazardous condition following facility retirement.

18
19 **Financial Assurance.** PEC estimated the cost of demolition and site restoration at
20 \$168,000 to \$252,000 and predicted that salvage and scrap values would fully offset that cost.
21 ODOE recommended that the Council find that no salvage value should attach to an energy
22 facility that would be retired 30 years in the future and, because there is no certainty the State
23 would have an enforceable claim against the value of scrap. Therefore, the Council finds that no
24 allowance should be made for the prospective value of scrap in calculating the applicable
25 financial assurance amount.

26
27 ODOE obtained an independent cost estimate, based on the estimating procedure outlined
28 in its draft "Facility Retirement Cost Estimating Guide." That estimate, prepared by reference to
29 limited project design information included in the application, set the cost of removing buildings
30 at \$186,433, the cost of removing tanks and equipment at \$206,799, and the total cost of
31 demolition and site restoration at \$515,380. By reference to detailed design drawings, PEC's
32 consultant demonstrated that the cost of removing buildings would be \$123,510 and the cost of
33 removing tanks and equipment would be \$177,261, setting the total cost of demolition and site
34 restoration at \$409,258 (in 2006 dollars). The Council finds that this estimate is within the range
35 of accuracy for estimates of this type. The Council finds that the estimate should be adjusted by
36 adding to this amount the customary 1-percent performance bond, 10-percent administration and
37 project management costs, and 20-percent future developments contingency, as well as a
38 \$250,000 contingency to cover the prospective cost of hazardous materials assessments, testing
39 and cleanup. The Council finds that the financial assurance amount applicable to CEP (in 2006
40 dollars) is \$786,000, as shown in Table 1. The Council further finds that the initial financial
41 assurance amount should be adjusted to Second Quarter 2007 dollars to coincide with the date of
42 Council action on the CEP application. The 2006 GDP Deflator is 116.034625; the preliminary
43 Second Quarter 2007 GDP Deflator is 118.1315. The adjusted initial financial assurance amount
44 is derived by application of the following formula: \$786,000 times (118.1315/116.034625).
45 Therefore, the Council finds that the initial financial assurance amount applicable to CEP is
46 \$800,000 (in Second Quarter 2007 dollars rounded to the nearest \$1,000).

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Table 1
Cost of Facility Retirement and Site Restoration

Utility Disconnects		\$3,435
Preliminary Work (Cut & Cap Lines)		\$14,268
Removal of Buildings		\$123,510
Removal of Tanks and Equipment		\$177,261
General Costs (Permits, mobilization, engineering, overhead)		\$90,784
Total Cost of Facility Retirement and Site Restoration		\$409,258
Performance Bond	1%	\$4,093
Administration and Project Management Costs	10%	\$40,926
Future Developments Contingency	20%	\$81,852
Hazardous Materials Assessments, Testing and Cleanup		\$250,000
Total Financial Assurance Amount (2006 \$)		\$786,129
Total Financial Assurance Amount (rounded to nearest \$1,000)		\$786,000
Total Financial Assurance Amount (adjusted to second quarter 2007)		\$800,000

If a plant is not well-operated, leaks, spills, and improper materials handling over a period of several years could contaminate soil, particularly if the spills had access to cracks in concrete or asphalt cover or did not occur over an impermeable surface. In the absence of an effective materials management and monitoring plan, careless practices could result in much higher site remediation costs. Accordingly, the Council adopts a condition that requires the certificate holder to conduct Phase I Environmental Site Assessments, in accordance with an industry-accepted standard, such as ASTM Standard E-1527, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, each 10 years. If any Environmental Site Assessment shows there will be higher remediation costs than can be covered by bond or letter of credit then in place, the Council requires the certificate holder to increase its bond or letter of credit to cover the higher costs.

PEC provided a letter from WestLB AG, dated April 10, 2007, wherein WestLB described, in general terms, the Credit Agreement between PEC and its affiliates (the "Borrowers") and numerous lenders and secured parties (the "Lenders"). WestLB described its role as administrative agent for the Lenders, collateral agent for the senior secured parties, and lead arranger and sole bookrunner. WestLB stated that the Credit Agreement provides that, subject to satisfaction of its terms and conditions, PEC may request that letters of credit be issued in connection with obligations of PEC under contracts to which it is party or in connection with permits or governmental approvals granted to PEC.

A bond or letter of credit is financial assurance to the State of Oregon that funds will be available to the State should it have to restore the site because of default by the certificate holder. It is a last resort; it is not the primary mechanism for restoring the site. It is the responsibility of the certificate holder to have funds or other financial resources available to it sufficient to restore the site.

To find that PEC complies with OAR 345-022-0050(2), the Council adopts the following conditions in the site certificate:

1 (IV.C.4) Within 30 days after the effective date of the site certificate, the
2 certificate holder shall submit to the State of Oregon, through the
3 Council, a bond or letter of credit in the amount of \$800,000 (in
4 Second Quarter 2007 dollars) naming the State of Oregon, acting by
5 and through the Council, as beneficiary or payee.

6 (a) The certificate holder shall adjust the amount of the bond or
7 letter of credit to present value annually, using the U.S. Gross
8 Domestic Product Implicit Price Deflator, Chain-Weight, as
9 published in the Oregon Department of Administrative
10 Services' "Oregon Economic and Revenue Forecast," or by
11 any successor agency ("Index"). If at any time the Index is no
12 longer published, the Council shall select a comparable
13 calculation to adjust Second Quarter 2007 dollars to present
14 value.

15 (b) The form of bond or letter of credit shall be subject to prior
16 approval by the Council.

17 (c) The issuer of the bond or letter of credit shall be subject to
18 prior approval by the Council.

19 (d) The certificate holder shall describe the status of the bond or
20 letter of credit in the annual report submitted to the Council
21 under Condition (VI.B.6).

22 (e) The bond or letter of credit shall not be subject to revocation
23 or reduction before retirement of the facility.

24
25 (IV.C.5) If the certificate holder elects to use a bond to meet the requirements
26 of Condition (IV.C.4), the certificate holder shall ensure that the
27 surety is obligated to comply with the requirements of applicable
28 statutes, Council rules and this site certificate when the surety
29 exercises any legal or contractual right it may have to assume
30 construction, operation or retirement of the energy facility. The
31 certificate holder shall also ensure that the surety is obligated to notify
32 the Council that it is exercising such rights and to obtain any Council
33 approvals required by applicable statutes, Council rules and this site
34 certificate before the surety commences any activity to complete
35 construction or to operate or retire the energy facility.

36
37 (IV.C.6) Not later than ten years after the date of commercial operation of the
38 energy facility, and each ten years thereafter during the life of the
39 energy facility, the certificate holder shall complete an independent
40 Phase I Environmental Site Assessment of the energy facility site.
41 Within 30 days after its completion, the certificate holder shall deliver
42 the Phase I Environmental Site Assessment report to the Department.

43
44 (IV.C.7) In the event that any Phase I Environmental Site Assessment
45 identifies improper handling or storage of hazardous substances or
46 improper record keeping procedures, the certificate holder shall

1 correct such deficiencies within six months after completion of the
2 corresponding Phase I Environmental Site Assessment. It shall
3 promptly report its corrective actions to the Department. The Council
4 shall determine whether the corrective actions are sufficient.

5
6 **(IV.C.8)** The certificate holder shall report to the Department any release of
7 hazardous substances, pursuant to DEQ regulations, within one
8 working day after the discovery of such release. This obligation shall
9 be in addition to any other reporting requirements applicable to such
10 a release.

11
12 **(IV.C.9)** If the certificate holder has not remedied a release consistent with
13 applicable Oregon Department of Environmental Quality standards
14 or if the certificate holder fails to correct deficiencies identified in the
15 course of a Phase I Environmental Site Assessment within six months
16 after the date of the release or the date of completion of the Phase I
17 Environmental Site Assessment, the certificate holder shall submit to
18 the Council for its approval an independently prepared estimate of
19 the additional cost of remediation or correction within such six-month
20 period.

- 21 (a) Upon approval of an estimate by the Council, the certificate
22 holder shall increase the amount of its bond or letter of credit
23 by the amount of the estimate.
24 (b) In no event, however, shall the certificate holder be relieved of
25 its obligation to exercise all due diligence in remedying a
26 release of hazardous substances or correcting deficiencies
27 identified in the course of a Phase I Environmental Site
28 Assessment.

29
30 **(IV.C.10)** All funds received by the certificate holder from the salvage of
31 equipment and buildings shall be committed to the restoration of the
32 energy facility site to the extent necessary to fund the approved site
33 restoration and remediation.

34
35 **(IV.C.11)** The certificate holder shall pay the actual cost to restore the site to a
36 useful, non-hazardous condition at the time of retirement,
37 notwithstanding the Council's approval in the site certificate of an
38 estimated amount required to restore the site.

39
40 **(IV.C.12)** If the Council finds that the certificate holder has permanently ceased
41 construction or operation of the facility without retiring the facility
42 according to a final retirement plan approved by the Council, as
43 described in OAR 345-027-0110 and prepared pursuant to Condition
44 (IV.C.2), the Council shall notify the certificate holder and request
45 that the certificate holder submit a proposed final retirement plan to
46 the Department within a reasonable time not to exceed 90 days.

- 1 (a) If the certificate holder does not submit a proposed final
2 retirement plan by the specified date, the Council may direct
3 the Department to prepare a proposed a final retirement plan
4 for the Council’s approval.
5 (b) Upon the Council’s approval of the final retirement plan, the
6 Council may draw on the bond or letter of credit described in
7 Condition (IV.C.4) to restore the site to a useful, non-
8 hazardous condition according to the final retirement plan, in
9 addition to any penalties the Council may impose under OAR
10 Chapter 345, Division 29.
11 (c) If the amount of the bond or letter of credit is insufficient to
12 pay the actual cost of retirement, the certificate holder shall
13 pay any additional cost necessary to restore the site to a useful,
14 non-hazardous condition.
15 (d) After completion of site restoration, the Council shall issue an
16 order to terminate the site certificate if the Council finds that
17 the facility has been retired according to the approved final
18 retirement plan.
19

20 The Council finds that PEC has a reasonable likelihood of obtaining a bond or letter of
21 credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
22 hazardous condition.
23

24 **Conclusion**

25 The Council finds that, subject to the conditions stated in this final order, PEC meets the
26 retirement and financial assurance standard, OAR 345-022-0050.
27

28 **D. LAND USE, OAR 345-022-0030**

- 29 (1) *To issue a site certificate, the Council must find that the proposed facility*
30 *complies with the statewide planning goals adopted by the Land Conservation*
31 *and Development Commission.*
32 (2) *The Council shall find that a proposed facility complies with section (1) if:*
33 *(a) The applicant elects to obtain local land use approvals under ORS*
34 *469.504(1)(a) and the Council finds that the facility has received local land*
35 *use approval under the acknowledged comprehensive plan and land use*
36 *regulations of the affected local government; or*
37 *(b) The applicant elects to obtain a Council determination under ORS*
38 *469.504(1)(b) and the Council determines that”****
39

40 **Discussion**

41 PEC elected to address the Council’s land use standard by obtaining local land use
42 approvals.
43

44 The facility is located within the Port Industrial (“PI”) Zoning District, as identified in the
45 Morrow County Comprehensive Plan (1986) and Morrow County Zoning and Subdivision Code
46 (2001). Both the Comprehensive Plan and the Zoning and Subdivision Code identify the facility

1 site as PI. The PI District (Development Code Section 3.073) lists specific uses that are permitted
2 outright. Such uses include: chemical and primary metal industrial uses that are port-related
3 [3.073(A)(3)] and manufacturing, refining, processing or assembling of any agricultural, mining
4 or industrial products [3.073(A)(7)]. PEC included in its application a copy of a letter from the
5 Morrow County Planning Department stating that “[t]he proposed use, processing of ethanol, is
6 an outright use in the Port Industrial Zone.” That determination addressed the facility, together
7 with the related or supporting natural gas pipeline, electric supply line and ethanol pipeline.
8

9 **Conclusion**

10 The Council finds that PEC meets the land use standard, OAR 345-0022-0030.
11

12 **E. STRUCTURAL STANDARD, OAR 345-022-0020**

13 (1) *Except for facilities described in sections (2) and (3)², to issue a site certificate,*
14 *the Council must find that:*

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

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

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

32 (d) *The applicant can design, engineer and construct the facility to avoid*
33 *dangers to human safety presented by the hazards identified in subsection*
34 *(c). ****
35

36 **Discussion**

37 The analysis area for the structural standard is the area within the site boundary.
38

39 **Site Characterization—Seismic Hazards**

40 In the Project Order, the Department noted that the reference to seismic zone in the
41 standard is based on an outdated edition of the Oregon Structural Specialty Code. The Project
42 Order directs the applicant to characterize the seismic hazard as specified in the 2003 edition of
43 the International Building Code (IBC), identifying maximum probable ground motion and taking

² In this and other conditions that begin with a reference to “sections (2) and (3),” those sections refer to renewable energy facilities and special criteria facilities and do not apply to the Columbia Ethanol Project.

1 into account ground failure and amplification for the site specific soil profile under the maximum
2 credible and maximum probable seismic events³.

3
4 In the ASC, PEC characterized the site in terms of seismic hazard by means of a
5 combination of literature review, aerial photography, evaluation of existing subsurface data, and
6 borings performed at the site in April 2006. PEC provided supplemental information for the
7 application in a March 16, 2007 technical report from its geotechnical consultant, GRI. In its
8 comments, DOGAMI noted that the site certificate application must reflect exactly what is in the
9 GRI report. The information provided by GRI in its report of March 16, 2007 is considered part
10 of the application and is the basis for review of compliance with this standard.⁴

11
12 The seismic hazard at the site would result from one of two seismic sources: subduction
13 zone events and local crustal events. Each of these sources would have a different cause and
14 would produce an earthquake with different characteristics, *i.e.*, peak ground accelerations,
15 response spectra, duration of strong shaking, near field effects, surface rupture and hanging wall
16 effects. For the Cascadia Subduction Zone event, the applicant considered a megathrust event
17 with estimated magnitude of 8.3 to 9.0 Based on attenuation relationships published by Youngs
18 et al. (1997), peak horizontal bedrock acceleration⁵ at the site from this event would be
19 approximately 0.08g.

20
21 PEC also considered seismic hazard from local crustal events. Due to a lack of reliable
22 historic record of local earthquakes, the seismic capability of earthquake sources was used to
23 estimate peak bedrock acceleration. For local crustal events, applicant considered an event of
24 magnitude 6.5 at an epicentral distance of 8 km.

25
26 To account for the type and thickness of soil overlying the bedrock, PEC's consultant
27 developed a generalized model of the subsurface profile at the site, based on subsurface
28 explorations, available water well logs and estimates of shear wave velocities measured for
29 similar soil and rock conditions at other sites. Based on this generalized profile, response spectra
30 were prepared using the PROSHAKE computer program.

31
32 The results of the site response model indicate that peak horizontal ground accelerations
33 are generated by the local crustal model for this site. PEC committed in the ASC to replacing the
34 upper 7.5 feet of loose soil with compacted structural fill. Based on the subsurface conditions

³ On May 11, 2007, the Council amended the Structural Standard. In the Project Order, ODOE specified use of the 2003 International Building Code, consistent with the new standard. Therefore, the Project was reviewed for compliance with the new standard.

⁴ Email from Bill Burns to Adam Bless, April 13, 2007, "Re: Additional Information on Pacific Ethanol"

⁵ In assessing seismic hazards, the applicant must identify and characterize all earthquake sources capable of generating median peak ground accelerations greater than 0.05g (a force 1/20th that of gravity) on rock at the energy facility site. The magnitude ("M") of an earthquake is determined by the strength of the earthquake at its epicenter. The acceleration of the ground at any point, as measured in g's, depends on the magnitude of the earthquake, the distance from the epicenter to that point, the type of material through which the ground motion is transferred from the epicenter to the point, and other factors. For a given earthquake, there is only one magnitude (M), but the ground acceleration (g) is site specific.

1 encountered and the placement of structural fill, the applicant describes the site as Class C in
2 accordance with Table 1615.1.1 of the IBC.

3
4 The results of the site specific study indicate that the selected design earthquakes result in
5 a mean response spectrum that exceeds IBC design spectrum for Site Class C at periods less than
6 0.3 seconds. The applicant's geotechnical consultant recommended using a 0.0 period spectral
7 acceleration (peak ground acceleration) of 0.20g for the design response spectrum.

8
9 In response to a Request for Additional Information by DOGAMI, PEC considered
10 available fault information including a mapped fault within 1 km of the site. PEC concluded that
11 the risk of ground rupture due to fault displacement in the project area is low.

12
13 The site is on relatively flat terrain, with dense sand and gravel present at shallow depths.
14 Applicant concluded that the potential for earthquake induced landslides, lateral spreading,
15 liquefaction and settlement or subsidence at the site are low.

16 17 **Facility Design for Seismic Hazards**

18 The application indicates that the hazard due to ground acceleration, ground rupture,
19 liquefaction, and settlement or subsidence, is low. No special mitigation measures to address
20 these hazards in the siting, design or construction of the facility were recommended. Therefore,
21 the Council does not include any conditions outside the standard conditions of OAR Chapter
22 345, Division 27.

23 24 **Non-Seismic Hazards**

25 As noted above, the site is on relatively flat ground. The regional groundwater table is
26 located within dense sand and gravel at the site. Slope instability and landslide are not geologic
27 hazards that will impact the facility.

28
29 The project area is mantled with wind-deposited fine-grained sand and silt soil known as
30 loess. The particles are of relatively uniform size and the silt usually has sufficient cohesion, or
31 undrained shear strength, so that excavations made in the material can stand on near-vertical
32 slopes. When loaded by conventional spread footings and saturated, the bond between soil
33 particles becomes weakened and the soil structure altered which can result in large settlement at
34 the ground surface.

35 36 **Mitigation of Non-Seismic Hazards**

37 The only potential for non-seismic geological hazard identified was the potential for
38 settlement due to the presence of loess soils. Under the exemption for ethanol facilities described
39 in the procedural history, PEC has already begun construction of the facility. The site preparation
40 included removal of the upper 7.5 feet of soil to be replaced with compacted structural fill over
41 the site's load bearing areas. PEC states that recompaction was accomplished in 8-inch lifts, with
42 compaction exceeding 95%. No other non-seismic mitigation was specified. Therefore, the
43 Council does not include any conditions beyond the standard conditions listed in OAR Chapter
44 345, Division 27.

1 **Conclusion**

2 The Council finds that PEC, through appropriate site-specific study, has adequately
3 characterized the site as to seismic zone⁶ and expected ground motion and ground failure, taking
4 into account amplification, during the maximum credible and maximum probable seismic events;
5 PEC can design, engineer, and construct the facility to avoid dangers to human safety presented
6 by seismic hazards affecting the site that are expected to result from all maximum probable
7 seismic events; PEC, through appropriate site-specific study, has adequately characterized the
8 potential geological and soils hazards of the site and its vicinity that could, in the absence of a
9 seismic event, adversely affect, or be aggravated by, the construction and operation of the
10 facility; and PEC can design, engineer and construct the facility to avoid dangers to human
11 safety.

12
13 The Council adopts the standard conditions of OAR Chapter 345, Division 27, in the site
14 certificate:

- 15
16 **(IV.E.1) The certificate holder shall design, engineer and construct the facility**
17 **to avoid dangers to human safety presented by seismic hazards**
18 **affecting the site that are expected to result from all maximum**
19 **probable seismic events. As used in this condition, “seismic hazard”**
20 **includes ground shaking, landslide, liquefaction, lateral spreading,**
21 **tsunami inundation, near field effects, hanging wall effects, fault**
22 **rupture, fault displacement, and subsidence.**
- 23
24 **(IV.E.2) The certificate holder shall notify the Department, the State Building**
25 **Codes Division and DOGAMI promptly if site investigations or**
26 **trenching reveal that conditions in the foundation rocks differ**
27 **significantly from those described in the application for a site**
28 **certificate. After the Department receives the notice, the Council may**
29 **require the certificate holder to consult with the Department of**
30 **Geology and Mineral Industries and the Building Codes Division and**
31 **to propose mitigation actions.**
- 32
33 **(IV.E.3) The certificate holder shall notify the Department, the State Building**
34 **Codes Division and the Department of Geology and Mineral**
35 **Industries promptly if shear zones, artesian aquifers, deformations, or**
36 **clastic dikes are found or suspected at or in the vicinity of the site.**
- 37
38 **(IV.E.4) The certificate holder shall design, engineer and construct the facility**
39 **to avoid dangers to human safety presented by non-seismic or**
40 **aseismic hazards affecting the site. As used in this condition, “non-**
41 **seismic or aseismic azards” includes settlement, landslides,**
42 **groundwater, flooding, and erosion.**

43
44 The Council finds that PEC meets the structural standard, OAR 345-0022-0020.

⁶ Because the Project Order directs PEC to characterize seismic hazard under the 2003 edition of the IBC, it is consistent with the revised Structural Standard adopted by the Council on May 11, 2007.

1
2 **F. SOIL PROTECTION, OAR 345-022-0022**

3 *To issue a site certificate, the Council must find that the design, construction and*
4 *operation of the facility, taking into account mitigation, are not likely to result in*
5 *a significant adverse impact to soils including, but not limited to, erosion and*
6 *chemical factors such as salt deposition from cooling towers, land application of*
7 *liquid effluent, and chemical spills.*

8
9 **Discussion**

10 The Council considers adverse impacts to soils because of potential related impacts to
11 agricultural and forest land uses, native vegetation, fish and wildlife habitat, and water quality.
12 Relevant under this standard are the facility's potential impacts such as erosion, compaction,
13 mass wasting, slumping, chemical spills, and salt deposition.

14
15 The analysis area for the soil protection standard is the area within the site boundary.

16
17 **Soil Type.** PEC identified near-surface soil types in the analysis area using the U.S.
18 Department of Agricultural (“USDA”), Soil Survey of Morrow County, Oregon (USDA 1983).
19 The entire facility site is located in areas mapped as Quincy loamy fine sand, 2 to 12 percent
20 slope.

21
22 The energy facility site is zoned as Port Industrial Land. No land uses dependent on
23 productive soils, including the growing of crops, occurs at the site.

24
25 **Impacts During Construction**

26 Construction of the facility would result in unavoidable impacts to soils resulting from
27 the permanent placement of facility components occupying about 9.5 acres. In addition, facility
28 construction would temporarily disturb about 10.7 acres for staging areas and excavation for
29 underground utilities.

30
31 **Impacts During Operation**

32 During operation of the energy facility, there would be limited potential for soil impacts.
33 Paved and graveled surfaces and structures at the energy facility site would shed some storm
34 water during periods of precipitation. Deposition from cooling towers could affect downwind
35 soils. And, soils could be affected by land application of liquid effluent, as proposed under the
36 existing Port of Morrow Water Pollution Control Facilities (“WPCF”) permit.

37
38 **Impacts During Retirement**

39 During retirement of the facility, an increased potential for erosion, soil compaction, and
40 chemical spills would exist. Soil would be exposed to accelerated erosion during the removal of
41 foundations, floors, parking structures, pipelines, and roadways because of the lack of
42 vegetation.

43
44 **Cooling Tower Drift**

45 The CEP is located about 1.5 miles northeast of the existing Coyote Springs
46 Cogeneration Project (“Coyote Springs”). A cooling tower drift analysis was performed for

1 Coyote Springs as part of the EFSC review process in 1994. That drift analysis showed that no
2 significant effects to surrounding natural resources would occur as a result of drift from the
3 facility. Cooling tower drift from the CEP would have no significant adverse impact on natural
4 resources for the following reasons:

- 5
- 6 • The CEP cooling tower system is about 20 percent of the size of the Coyote
7 Springs system, based on a recirculation rate of 12,012 gallons per minute for
8 CEP versus 65,875 gallons per minute for Coyote Springs.
- 9
- 10 • Cooling tower source water for both facilities comes from a common source, the
11 Port of Morrow. Therefore, incoming water chemistry, including salt
12 concentrations, is the same for both facilities.
- 13
- 14 • Due to their close proximity, general climatic conditions would be the same for
15 both facilities. Therefore, weather conditions affecting drift deposition (*i.e.*, wind
16 direction, wind speed, and relative humidity) would affect both facilities
17 similarly.
- 18
- 19 • Both facilities are located on industrial land within the Port of Morrow, and
20 surrounding land uses are similar for both facilities.
- 21
- 22 • Damage to vegetation as a result of cooling tower drift deposition generally
23 occurs within 200 meters (656 feet) from the source. All areas within 1,000 feet of
24 the CEP contain highly degraded weedy habitat. The facility area is all zoned as
25 industrial land, with the nearest agricultural areas occurring more than 1,000 feet
26 from the cooling tower.
- 27
- 28 • The CEP is located about 2,300 feet downwind from Messner Pond. Coyote
29 Springs is located less than 500 feet upwind of Messner Pond. Earlier studies
30 found that Coyote Springs would have no significant adverse impact on water
31 quality in Messner Pond or its surrounding vegetation. Because CEP is further
32 away and downwind from the pond, CEP would have no significant adverse
33 impact on the pond or its surrounding vegetation.
- 34
- 35 • The aquatic resource nearest the CEP is the Columbia River, at a distance of
36 about 1,500 feet. No significant impact to water quality in the Columbia River,
37 because the majority of drift would fall out prior to reaching the river. In addition,
38 the large volume of water in the river would rapidly dilute the small amount of
39 drift that might reach the river.
- 40

41 **Mitigation Measures**

42 During construction of the facility, PEC will reduce the potential for erosion by adhering
43 to the requirements of its NPDES Storm Water Discharge General Permit #1200-C for
44 construction activities. The NPDES 1200-C permit includes a detailed Erosion and Sediment
45 Control Plan that details measures designed to contain soil and construction equipment within
46 the energy facility footprint and along the corridors of the related or supporting facilities. DEQ

1 issues and administers the NPDES 1200-C permit. During construction, PEC will implement the
2 following sediment and erosion control measures: construction of a bioswale system, sediment
3 barrier fence, ditch checks, catch basin inlet protection, and construction site entrance and exit
4 treatments. After completion of construction, PEC would vegetate temporarily disturbed areas to
5 limit soil exposure to wind and water erosion.
6

7 During construction, operation and retirement of the facility, PEC would implement a
8 Spill Prevention Control and Countermeasure Plan (“SPCC”), an Emergency Action Plan, a
9 Hazardous Waste Emergency Response/Contingency Plan, and a Hazardous Materials
10 Management Plan (ASC, Exhibit G, page G-2). These plans, as well as the identification of a
11 preferred transportation route, are to be developed in coordination with the Morrow County Fire
12 District and all applicable local, state and federal regulatory agencies before beginning operation
13 of the facility.
14

15 During operation of the facility, PEC would reduce the potential for erosion and sediment
16 runoff by adhering to the erosion and sediment control plan incorporated in the NPDES Storm
17 Water Discharge General Permit #1200-Z (for industrial activities) issued and administered by
18 the DEQ.
19

20 During operation of the facility, PEC would regularly monitor its land application of
21 process wastewater on pastureland to ensure the activity adheres to the conditions of the Port of
22 Morrow WPCF permit.
23

24 In its ASC, PEC describes actions that are designed to address the Council’s soil
25 protection standard. The Council considers the following actions to be commitments by PEC. To
26 find that PEC complies with OAR 345-022-0022, the Council adopts the following conditions in
27 the site certificate:
28

- 29 **(IV.F.1) Throughout construction of the facility and post-construction**
30 **restoration, the certificate holder shall use temporary erosion and**
31 **sediment control measures, such as a bioswale system, sediment**
32 **barrier fence, ditch checks, catch basin inlet protection, and**
33 **construction site entrance and exit treatments.**
34
- 35 **(IV.F.2) Throughout construction of the facility and post-construction**
36 **restoration, the certificate holder shall install permanent erosion**
37 **control measures, as necessary.**
38
- 39 **(IV.F.3) Upon completion of construction of in an area, the certificate holder**
40 **shall vegetate temporarily disturbed areas to limit soil exposure to**
41 **wind and water erosion.**
42
- 43 **(IV.F.4) Before beginning operation of the facility, the certificate holder shall**
44 **obtain a NPDES Storm Water Discharge General Permit #1200-Z (for**
45 **industrial activities) from the Oregon Department of Environmental**
46 **Quality.**

1
2 (IV.F.5) Upon completion of retirement of the facility, the certificate holder
3 shall vegetate temporarily disturbed areas to limit soil exposure to
4 wind and water erosion.

5
6 (IV.F.6) During construction, operation and retirement of the facility, the
7 certificate holder shall implement a Spill Prevention Control and
8 Countermeasure Plan (“SPCC”), an Emergency Action Plan, a
9 Hazardous Waste Emergency Response/Contingency Plan, and a
10 Hazardous Materials Management Plan.

11
12 The Council finds that the design, construction, operation and retirement of the facility,
13 taking into account mitigation, are not likely to result in a significant adverse impact to soils
14 including, but not limited to, erosion and chemical factors such as salt deposition, land
15 application of liquid effluent, and chemical spills.

16
17 **Conclusion**

18 The Council finds that, subject to the conditions stated in this final order, PEC meets the
19 soil protection standard, OAR 345-022-0022.

20
21 **G. PROTECTED AREAS, OAR 345-022-0040**

22 (1) *Except as provided in sections (2) and (3), the Council shall not issue a*
23 *site certificate for a proposed facility located in the areas listed below. To*
24 *issue a site certificate for a proposed facility located outside the areas*
25 *listed below, the Council must find that, taking into account mitigation, the*
26 *design, construction and operation of the facility are not likely to result in*
27 *significant adverse impact to the areas listed below. Cross-references in*
28 *this rule to federal or state statutes or regulations are to the version of the*
29 *statutes or regulations in effect as of May 11, 2007:*

- 30 (a) *National parks, including but not limited to Crater Lake National*
31 *Park and Fort Clatsop National Memorial;*
32 (b) *National monuments, including but not limited to John Day Fossil*
33 *Bed National Monument, Newberry National Volcanic Monument*
34 *and Oregon Caves National Monument;*
35 (c) *Wilderness areas established pursuant to The Wilderness Act, 16*
36 *U.S.C. 1131 et seq. and areas recommended for designation as*
37 *wilderness areas pursuant to 43 U.S.C. 1782;*
38 (d) *National and state wildlife refuges, including but not limited to*
39 *Ankeny, Bandon Marsh, Baskett Slough, Bear Valley, Cape*
40 *Meares, Cold Springs, Deer Flat, Hart Mountain, Julia Butler*
41 *Hansen, Klamath Forest, Lewis and Clark, Lower Klamath,*
42 *Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch*
43 *Rocks, Umatilla, Upper Klamath, and William L. Finley;*
44 (e) *National coordination areas, including but not limited to*
45 *Government Island, Ochoco and Summer Lake;*

- 1 (f) National and state fish hatcheries, including but not limited to
2 Eagle Creek and Warm Springs;
- 3 (g) National recreation and scenic areas, including but not limited to
4 Oregon Dunes National Recreation Area, Hell's Canyon National
5 Recreation Area, and the Oregon Cascades Recreation Area, and
6 Columbia River Gorge National Scenic Area;
- 7 (h) State parks and waysides as listed by the Oregon Department of
8 Parks and Recreation and the Willamette River Greenway;
- 9 (i) State natural heritage areas listed in the Oregon Register of
10 Natural Heritage Areas pursuant to ORS 273.581;
- 11 (j) State estuarine sanctuaries, including but not limited to South
12 Slough Estuarine Sanctuary, OAR Chapter 142;
- 13 (k) Scenic waterways designated pursuant to ORS 390.826, wild or
14 scenic rivers designated pursuant to 16 U.S.C. 1271 et seq., and
15 those waterways and rivers listed as potentials for designation;
- 16 (l) Experimental areas established by the Rangeland Resources
17 Program, College of Agriculture, Oregon State University: the
18 Prineville site, the Burns (Squaw Butte) site, the Starkey site and
19 the Union site;
- 20 (m) Agricultural experimental stations established by the College of
21 Agriculture, Oregon State University, including but not limited to:
22 Coastal Oregon Marine Experiment Station, Astoria
23 ***
- 24 (n) Research forests established by the College of Forestry, Oregon
25 State University, including but not limited to McDonald Forest,
26 Paul M. Dunn Forest, the Blodgett Tract in Columbia County, the
27 Spaulding Tract in the Mary's Peak area and the Marchel Tract;
- 28 (o) Bureau of Land Management areas of critical environmental
29 concern, outstanding natural areas and research natural areas;
- 30 (p) State wildlife areas and management areas identified in OAR
31 chapter 635, Division 8.
- 32 (2) Notwithstanding section (1), the Council may issue a site certificate for a
33 transmission line or a natural gas pipeline or for a facility located outside
34 a protected area that includes a transmission line or natural gas or water
35 pipeline as a related or supporting facility located in a protected area
36 identified in section (1), if other alternative routes or sites have been
37 studied and determined by the Council to have greater impacts.
38 Notwithstanding section (1), the Council may issue a site certificate for
39 surface facilities related to an underground gas storage reservoir that
40 have pipelines and injection, withdrawal or monitoring wells and
41 individual wellhead equipment and pumps located in a protected area, if
42 other alternative routes or sites have been studied and determined by the
43 Council to be unsuitable.
- 44 (3) The provisions of section (1) do not apply to transmission lines or natural
45 gas pipelines routed within 500 feet of an existing utility right-of-way
46 containing at least one transmission line with a voltage rating of

1 115 kilovolts or higher or containing at least one natural gas pipeline of
2 8 inches or greater diameter that is operated at a pressure of 125 psig.
3

4 **Discussion**

5 The analysis area for protected areas is the area within the site boundary and 20 miles
6 from the site boundary.
7

8 Eleven protected areas are located within the analysis area, as shown in Table 2. No
9 portion of the facility would be located in a protected area, and all of the protected areas are one
10 mile or more from the facility site.
11

12 **TABLE 2**
13 **PROTECTED AREAS IN COLUMBIA ETHANOL PROJECT ANALYSIS AREA**
14

Protected Area	Direction and Distance From Energy Facility
Umatilla National Wildlife Refuge	North, 4.6 miles
Irrigon Hatchery	Northeast, 7.6 miles
Umatilla Hatchery	Northeast, 7.4 miles
Crow Butte State Park (WA)	Northwest, 9.1 miles
Hermiston Agricultural Research and Extension Center	East, 17.53 miles
National Historic Oregon Trail ACEC	Southeast, 19.4 miles
Horn Butte ACEC	West, 17.3 miles
Coyote Springs Wildlife Area	Southeast, 1.3 miles
Irrigon Wildlife Area	Northeast, 13.7 miles
Power City Wildlife Area	East, 17.7 miles
Willow Creek Wildlife Area	West, 14.8 miles

15
16
17 **Noise.** The protected area nearest the facility is the Coyote Springs Wildlife Area located
18 about 1.3 miles southeast of the facility. Noise from operation of the energy facility would be
19 inaudible at the Coyote Springs Wildlife Area and thus inaudible at all of the other protected
20 areas within the analysis area.
21

22 The Council finds that noise from the facility would not result in a significant adverse
23 impact on any protected area.
24

25 **Traffic.** Increased traffic from construction and operation of the facility could affect the
26 Umatilla National Wildlife Refuge and the Coyote Springs Wildlife Area. Access to the Umatilla
27 National Wildlife Refuge is limited in the vicinity of the facility. Demand on the Coyote Springs
28 Wildlife Area is limited by the small size and limited development of the associated parking
29 area. Roads within the facility area are lightly traveled and would be capable of accommodating

1 the increased traffic resulting from construction and operation of the facility, even in the event
2 that all shipments to and from the facility were by truck.

3
4 The Council finds that traffic generated by construction and operation of the proposed
5 facility would not result in a significant adverse impact on any protected area.

6
7 **Water Use.** Water use at the facility would not affect any of the protected areas within
8 the analysis area. Water for construction and operation of the facility would be purchased from
9 the Port of Morrow, which supplies users in the Boardman Industrial Park with water for
10 industrial use. The Port of Morrow obtains its water from a horizontal Ranney well collection
11 system adjacent to and under the Columbia River. PEC does not anticipate that the Ranney well
12 system would adversely affect the McCormack Unit of the Umatilla National Wildlife Refuge,
13 because the water supplied by the Port would be drawn from the Columbia River, whereas the
14 shallow marsh habitat at the McCormack Unit is driven primarily by groundwater, not river
15 levels.

16
17 The Council finds that water use at the proposed facility would not result in a significant
18 adverse impact on any protected area.

19
20 **Wastewater Disposal.** Wastewater disposal at the facility would not affect any of the
21 protected areas within the analysis area. Wastewater would be generated from the washdown of
22 equipment, including concrete trucks, during earthwork and construction. Such washdown would
23 be the responsibility of the construction and would be likely to occur at a contractor-owned batch
24 plant. Portable toilets would be provided for onsite sewage handling during construction and
25 would be pumped and cleaned regularly by the construction contractor. Industrial wastewater
26 generated during operation of the facility would be treated at the Port of Morrow industrial
27 wastewater treatment facility. Wastewater from toilets and sinks would be treated at the
28 Boardman wastewater treatment plant.

29
30 The Council finds that wastewater disposal at the proposed facility would not result in a
31 significant adverse impact on any protected area.

32
33 **Visual Impacts of Facility Structures.** The facility, particularly the cooling tower and
34 150-foot distillation towers, may be visible from the Umatilla National Wildlife Refuge, the
35 Coyote Springs Wildlife Area, and the Horn Butte ACEC under clear weather conditions.
36 However, none of the Protected Areas from which the facility might be visible are managed for
37 visual quality or are considered outstanding or remarkable scenic or aesthetic resources. The
38 facility would be compatible with scenic or visual goals, objectives, or policies identified in
39 applicable federal and local management plans.

40
41 Given the viewing distances ranging from about 15 to 20 miles, it is unlikely the steam
42 plume would be visible from the National Historic Oregon Trail sites and segment in the analysis
43 area. If it were visible, impacts, if any, would be negligible due to attenuating factors such as
44 distance, haze, humidity, background landscape, light conditions, and weather.

1 The Council finds that the visual impacts of facility structures would not result in a
2 significant adverse impact on any protected area.

3
4 **Visual Impacts from Air Emissions.** Air emissions from the proposed facility have been
5 permitted by the ODEQ and are not expected to have adverse impacts on protected areas.

6
7 Dust may be generated at the proposed facility site during construction, and PEC would
8 control such emissions by watering.

9
10 There are no Class 1 Visual Resources in the analysis area.

11
12 The Council finds that the visual impacts from air emissions of the facility would not
13 result in a significant adverse impact on any protected area.

14 **Conclusion**

15
16 The Council finds that, subject to the conditions stated in this final order, PEC meets the
17 protected areas standard, OAR 345-022-0040.

18 **H. FISH AND WILDLIFE HABITAT, OAR 345-022-0060**

19 *To issue a site certificate, the Council must find that the design, construction and*
20 *operation of the facility, taking into account mitigation, are consistent with the fish and*
21 *wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of*
22 *September 1, 2000.*

23 **Discussion**

24
25 OAR 635-415-0025 describes six categories of habitat in order of their value. The rule
26 then establishes mitigation goals and corresponding implementation standards for each habitat
27 category.

28 **Habitat Categories**

29
30 Habitat Category 1 is “irreplaceable, essential habitat for a fish or wildlife species,
31 population, or a unique assemblage of species and is limited on either a physiographic
32 province or site-specific basis, depending on the individual species, population or unique
33 assemblage.” The mitigation goal for Habitat Category 1 is “no loss of either habitat
34 quantity or quality.” The implementation standard requires “avoidance of impacts
35 through alternatives to the proposed development action.”

36
37
38 Habitat Category 2 is “essential habitat for a fish or wildlife species, population, or
39 unique assemblage of species and is limited either on a physiographic province or site-
40 specific basis depending on the individual species, population or unique assemblage.”
41 The mitigation goal for Habitat Category 2, if impacts are unavoidable, is “no net loss of
42 either habitat quantity or quality and to provide a net benefit of habitat quantity or
43 quality.” The implementation standard is “avoidance of impact through alternatives to the
44 proposed development action” or “mitigation of impacts, if unavoidable, through reliable
45 in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development

1 habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be
2 provided.”

3
4 Habitat Category 3 is “essential habitat for fish and wildlife, or important habitat for fish
5 and wildlife that is limited either on a physiographic province or site-specific basis,
6 depending on the individual species or population.” The mitigation goal for Habitat
7 Category 3 is “no net loss of either habitat quantity or quality.” The implementation
8 standard is “avoidance of impacts through alternatives to the proposed development
9 action” or “mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity
10 habitat mitigation to achieve no net loss in either pre-development habitat quantity or
11 quality.”

12
13 Habitat Category 4 is “important habitat for fish and wildlife species.” The mitigation
14 goal for Habitat Category 4 is “no net loss in either existing habitat quantity or quality.”
15 The implementation standard is “avoidance of impacts through alternatives to the
16 proposed development action” or “mitigation of impacts, if unavoidable, through reliable
17 in-kind or out-of-kind, in-proximity or off-proximity habitat mitigation to achieve no net
18 loss in either pre-development habitat quantity or quality.”

19
20 Habitat Category 5 is “habitat for fish and wildlife having high potential to become either
21 essential or important habitat.” The mitigation goal for Habitat Category 5, if impacts are
22 unavoidable, is “to provide a net benefit in habitat quantity or quality.” The
23 implementation standard is “avoidance of impacts through alternatives to the proposed
24 development action” or “mitigation of impacts, if unavoidable, through actions that
25 contribute to essential or important habitat.”

26
27 Habitat Category 6 is “habitat that has low potential to become essential or important
28 habitat for fish and wildlife.” The mitigation goal for Habitat Category 6 is “to minimize
29 impacts.” The implementation standard is to “minimize direct habitat loss and avoid
30 impacts to off-site habitat.”

31 32 **Habitat in the Analysis Area**

33 The analysis area for fish and wildlife habitat includes the area within the site boundary
34 and two miles from the site boundary.

35
36 Habitat Categories 2, 4, 5 and 6 occur within the analysis area.

37
38 Habitat Category 2 occurs as the Columbia River, which runs along the north edge of the
39 project. The Columbia River has the potential to provide riparian habitat for the Pacific lamprey
40 (*Lampetra tridentate*) and margined sculpin (*Cottus marginatus*) during various life stages and at
41 various times of the year. While the facility would cause no impacts to the Columbia River, a
42 related or supporting ethanol pipeline would interconnect with a third-party dock above the
43 river’s Ordinary High Water (“ODW”) line.

44
45 Habitat Category 4 occurs as occurs as grassland habitat in one small area within the
46 northern corner of the analysis area between the railroad tracks and the Columbia River. This

1 grassland habitat consists mainly of weedy herbaceous species with scattered native shrubs, such
2 as bitterbrush (*Purshia tridentate*) and other weedy shrub species. Cheatgrass (*Bromus tectorum*)
3 is very common, comprising 40-50 percent cover. This grassland habitat has the potential to
4 provide habitat for ground-nesting birds, such as the western meadowlark, and foraging habitat
5 for raptors, such as the red-tailed hawk. Prey species may be less common in this area than in
6 better habitat off site, due to the presence of less valuable forage such as cheatgrass. Also,
7 because perching trees are scarce this area and industrial disturbance levels are high, use by
8 raptors, songbirds and other wildlife sensitive to the presence of humans is expected to be low.
9 This area may have some importance to adjacent aquatic habitats because of the scarcity of
10 riparian vegetation along the Columbia River in the region.

11
12 Habitat Category 5 occurs as the majority of the area outside the abandoned crop pivot.
13 This habitat type includes areas completely dominated by cheatgrass and other weeds, such as
14 tumbled mustard, bulbous blue grass, Russian thistle, and cereal rye (*Secale cereale*). Patches of
15 native bunchgrass are very uncommon. The dense weed cover limits the ability of most wildlife
16 species to use these areas for forage or cover.

17
18 Habitat Category 6 occurs as developed areas including gravel and dredge spoil piles
19 found in the northern corner of the analysis area, as well as graveled roads and a 20-foot corridor
20 on the existing railroad loop track. Due to the high level of disturbance, no special status or
21 sensitive species are known or expected to occur in the Category 6 habitats.

22 23 **Potential Impacts – Construction and Operation**

24 Direct Impacts (Habitat Quantity): Construction of the facility will take place within and
25 will temporarily affect 7.3 acres of Habitat Category 5 and 3.4 acres of Habitat Category 6.
26 Operation of the facility would permanently affect 6.7 acres of Habitat Category 5 and 2.8 acres
27 of Habitat Category 6 (CEP ASC, Exhibit P, Table P-3).

28
29 Habitat Category 5 Impacts: During construction, PEC will disturb 7.3 acres of Habitat
30 Category 5. Of this impact, 6.7 acres will be permanent. Impacts will be to grassland heavily
31 dominated by cheatgrass and other weeds.

32
33 Habitat Category 6 Impacts: During construction, PEC will disturb 3.4 acres of Habitat
34 Category 6. Of this impact, 2.8 acres will be permanent. Impacts will be to areas already subject
35 to considerable disturbance, including gravel piles, dredge spoil piles, existing roads, and a 20-
36 foot corridor on the railroad loop track.

37
38 Indirect Impacts (Habitat Quality). Indirect effects on habitat quality during construction
39 and operation could occur due to noise, traffic, human activity, maintenance activities and
40 operation of the energy facility.

41
42 Construction: Because of the existing high levels of human and industrial disturbance in
43 the area of the proposed facility, construction of the energy facility is not expected to result in
44 any direct impacts to special status or sensitive plant or wildlife species (PEC ASC, Exhibit P,
45 page P-12). For this reason, the Council finds that construction of the facility is not likely to
46 result in a significant adverse impact to fish and wildlife habitat.

1
2 Operation: Because of the existing high levels of human industrial disturbance in the area
3 of the proposed facility, operation of the energy facility is not expected to result in any direct
4 impacts to special status or sensitive plant or wildlife species (PEC ASC, Exhibit P, page P-12).
5 For this reason, the Council finds that operation of the facility is not likely to result in a
6 significant adverse impact to fish and wildlife habitat.
7

8 Retirement: Because of the existing high levels of human industrial disturbance in the
9 area of the proposed facility, operation of the energy facility is not expected to result in any
10 direct impacts to special status or sensitive plant or wildlife species (PEC ASC, Exhibit P, page
11 P-12). In addition, as required by Council rules, the site certificate would require PEC to submit
12 a retirement plan before permanent shutdown of the facility. The plan must include measures to
13 minimize impacts to fish and wildlife habitat and to ensure no net loss of habitat quantity or
14 quality with respect to essential or important habitat. For these reasons, the Council finds that
15 retirement of the facility is not likely to result in a significant adverse impact to fish and wildlife
16 habitat.
17

18 Mitigation: PEC proposes measures to avoid and mitigate for direct and indirect impacts
19 to habitat disturbed by construction, operation, and retirement of the energy facility.
20

21 Only Habitat Category 5 grassland habitat and Habitat Category 6 developed areas would
22 be directly affected by construction and operation of the proposed facility. In addition, there is
23 some potential for harm to listed fish species resulting from construction of the dock structure
24 and attachment of the pipelines and the accidental release of fluids transferred during the docking
25 process. PEC has described actions designed to address these direct and potential impacts.
26

27 With respect to direct impacts to Habitat Category 5 grasslands, following completion of
28 construction activities PEC would restore temporarily affected areas to pre-construction
29 conditions using a seed mix approved by ODFW and the Morrow County Soil and Water
30 Conservation District. To mitigate for permanent impacts, in coordination with ODFW, PEC
31 would implement a habitat mitigation plan calling for enhancement of the Coyote Springs
32 Wildlife Area.
33

34 With respect to direct impacts to Habitat Category 6 developed areas, PEC will: (1)
35 design the facility components to be the minimum size needed for operations; (2) use best
36 management practices to prevent loss of topsoil during construction; and (3) control noxious
37 seeds in areas disturbed by construction activities.
38

39 PEC developed a mitigation plan for Category 5 and 6 habitats in consultation with the
40 ODFW District Biologist. PEC submitted the final version of this plan to the Department on
41 March 30, 2007⁷. The ODFW District Biologist concurred, also on March 30, 2007⁸
42

⁷ David Evans Assoc. memo from Phil Rickus to Steve Cherry, ODFW "Habitat Mitigation Plan", March 30, 2007

⁸ email from Steve Cherry, ODFW to Dana Siegfried, DEA, March 30, 2007

1 In its comments on the application ODFW raised concern about the potential for spills
2 during ethanol shipment, potential impact to the river from wastewater discharge, and impact to
3 the river from construction and operation of the barge loading facility.
4

5 In its January 15 supplement, PEC stated that wastewater discharge would be to the Port
6 of Morrow under Water Pollution Control Facility (WPCF) permit 102325. The Port does not
7 discharge to the Columbia River or other surface waters. The WPCF permit allows discharge to
8 ground at agronomic rates. A condition included under the Organization Expertise Standard,
9 shown at section IV.B of this Order, requires that PEC provide documentation when DEQ has
10 modified the WPCF permit to include CEP's output.
11

12 PEC has contracted with Tidewater, Inc. to provide barge transportation services.
13 Tidewater is constructing the docking facility in concert with the Port of Morrow, for the use of
14 CEP and other tenants at the Port. Therefore the permits required for the docking facility are
15 "third party permits" under OAR 345-022-0010(3) and (4). A more complete discussion of the
16 Tidewater permits is provided at section IV.B of this order. The dock requires a section 404
17 permit from the US Army Corps and a section 401 permit from DEQ.
18

19 Although Tidewater is under US Army Corps jurisdiction, PEC described measures that
20 Tidewater will take to minimize impacts to fish habitat. These measures are described in the
21 Biological Assessment (BA) that Tidewater submitted to the Corps under National
22 Environmental Policy (NEPA) and Endangered Species Act (ESA) requirements.
23

24 The BA describes measures to prevent and mitigate spills during barge operation. These
25 include use of double hulled barges, the use of an "ecology box" that isolates the area where
26 hoses are connected during product transfer, compliance with Coast Guard loading protocols,
27 redundant high-level alarms that are tied into the shore product pump and set for automatic
28 shutoff in case of high tank level, restrictions on crew work hours, ensuring that a loader operator
29 is assigned to watch the entire loading process to minimize the chances of leaks in the event the
30 mechanical safeguards fail, and a Coast Guard required inspection prior to every product
31 transfer. The BA also describes a detailed spill response program, including participation in
32 "worst case" spill response exercises conducted jointly with Conoco Philips, the Coast Guard,
33 Washington Dept. of Ecology and Oregon DEQ.
34

35 During construction of the dock, no uncured concrete will come into contact with surface
36 water, and no materials would enter the waterway. Tidewater will use Best Management
37 Practices (BMP) for concrete mixing, placing and curing. The BA includes an extensive list of
38 impact avoidance and reduction measures to ensure that the docking facility does not hinder
39 recovery of ESA species.
40

41 Tidewater is constructing the dock in concert with the Port of Morrow, and not for
42 exclusive use by the CEP. Therefore the jurisdiction is with the Corps. However, the BA and the
43 federal regulations administered by the Corps indicate that the docking facility is not likely to
44 have a significant adverse impact on Category 2 habitat for listed fish species.
45

1 Based on the information in the January 15, 2007 supplement, the BA submitted by
2 Tidewater, and the mitigation plan for Category 5 and 6 habitat, ODFW commented that its
3 concerns regarding spill response and wildlife mitigation were satisfied⁹. The mitigation plan is
4 attached to this Order as Attachment A, and the Council adopts this plan as a condition and an
5 attachment to the site certificate.
6

7 In addition to the mitigation plan, PEC described actions that are designed to address the
8 Council's fish and wildlife habitat standard. The Council considers the following actions to be
9 commitments by PEC. To find that PEC complies with OAR 345-022-0060, the Council adopts
10 the following conditions in the site certificate:
11

12 **(IV.H.1) After completion of construction of the facility, the certificate holder**
13 **shall restore areas subject to temporary disturbance to pre-**
14 **construction conditions using a seed mix approved by ODFW and the**
15 **Morrow County Soil and Water Conservation District.**
16

17 **(IV.H.2) The certificate holder shall implement the habitat mitigation plan**
18 **submitted on March 30, 2007 and shown as Attachment A to this**
19 **Order.**
20

21 **(IV.H.3) During construction of the facility, the certificate holder shall**
22 **implement the following measures:**
23 **(a) Design the facility components to be the minimum size needed**
24 **for operations;**
25 **(b) Use best management practices to prevent loss of topsoil**
26 **during construction; and**
27 **(c) Control noxious weeds in areas disturbed by construction**
28 **activities.**
29

30 Consistency with ODFW Goals: The Council finds that, subject to the conditions adopted
31 in this final order, the facility is consistent with the ODFW fish and wildlife habitat goals and
32 standards for the reasons stated below:
33

- 34 • The proposed facility would not affect Habitat Categories 1, 2, 3 or 4.
- 35 • The proposed facility would unavoidably and permanently affect about 6.7 acres
36 of Habitat Category 5 grassland habitat. PEC would meet the mitigation goal (net
37 benefit in habitat quantity or quality) by implementing a habitat mitigation plan
38 designed in coordination with ODFW to enhance the Coyote Springs Wildlife
39 Area.
- 40 • The proposed facility would unavoidably and permanently affect about 2.8 acres
41 of Habitat Category 6 developed areas. To reduce impacts to Habitat Category 6
42 developed areas to the minimum amount possible, PEC would implement the
43 following measures: (1) Require the project facilities to be the minimum size
44 needed for operations; (2) Use best management practices to prevent loss of

⁹ email from Rose Owen, ODFW to Dana Siegfried, DEA, February 26, 2007

1 topsoil during construction; and (3) Control noxious weeds in areas disturbed by
2 construction activities.

3
4 **Conclusion**

5 The Council finds that, subject to the conditions stated in this final order, PEC meets the
6 fish and wildlife habitat standard, OAR 345-0022-0060.

7
8 **I. THREATENED AND ENDANGERED SPECIES, OAR 345-022-0070**

9 *To issue a site certificate, the Council, after consultation with appropriate state agencies,*
10 *must find that:*

- 11 (1) *For plant species that the Oregon Department of Agriculture has listed as*
12 *threatened or endangered under ORS 564.105(2), the design, construction and*
13 *operation of the proposed facility, taking into account mitigation:*
14 (a) *Are consistent with the protection and conservation program, if any, that*
15 *the Oregon Department of Agriculture has adopted under ORS*
16 *564.105(3); or*
17 (b) *If the Oregon Department of Agriculture has not adopted a protection and*
18 *conservation program, are not likely to cause a significant reduction in*
19 *the likelihood of survival or recovery of the species; and*
20 (2) *For wildlife species that the Oregon Fish and Wildlife Commission has listed as*
21 *threatened or endangered under ORS 496.172(2), the design, construction and*
22 *operation of the proposed facility, taking into account mitigation, are not likely to*
23 *cause a significant reduction in the likelihood of survival or recovery of the*
24 *species.*

25
26 **Discussion**

27 The analysis area for threatened and endangered fish and wildlife species is the area
28 within the site boundary and ¼ mile from the site boundary. The analysis area for threatened and
29 endangered plant species is the area within the site boundary and two miles from the site
30 boundary. “Threatened and endangered plant species” means species listed as threatened or
31 endangered by the state under ORS 564.105 and by the federal government under 16 USC 1533.
32 “Threatened and endangered animal species” means species listed as threatened or endangered
33 by the state under ORS 469.172 and by the federal government under 16 USC 1533.

34
35 **Threatened and Endangered Plant Species**

36 The Oregon Department of Agriculture (“ODA”) designates state-listed threatened or
37 endangered plant species under ORS Chapter 564 and OAR Chapter 603, Division 73. PEC
38 contacted the ODA for information about plant distribution and protection and conservation
39 programs.

40
41 No federal- or state-listed endangered, threatened or candidate plant species are reported
42 to occur in the analysis area. Nine species are reported to have potential habitat within the
43 analysis area: Northern Wormwood (*Artemisia campestris* var. *wormskioldii*) (C), Henderson’s
44 Needlegrass (*Achnatherum hendersonii*) (C), Dwarf Suncup (*Camissonia pygmaea*) (C), Vernal
45 Pool Mousetail (*Myosurus sessilis*) (SoC), Whitehead Navarretia (*Navarretia leucocephala*) (E),
46 Laurence’s Milkvetch (*Astragalus collinus* var. *laurentii*) (T), Disappearing Monkeyflower

1 (*Mimulus evanescens*) (C), Liverwort Monkeyflower (*Mimulus jungermannioides*) (T), and
2 Robinson’s Onion (*Allium robinsonii*) (SoC). PEC reports that none of the species has been
3 documented as occurring in the analysis area, nor were any species observed during field survey
4 or reconnaissance.

5
6 Potential Impacts on Plants: PEC conducted botanical surveys for the analysis area and
7 found none of the listed or candidate species. Impacts to these species are not likely to occur.

8 9 **Construction and Operation**

10 Direct Impacts (Habitat Quantity). Based on the above discussion, the Council finds that
11 there will likely be no direct impacts to threatened, endangered or candidate plant species or their
12 habitat on the energy facility site.

13
14 Indirect Impacts (Habitat Quality). Based on the above discussion, the Council finds that
15 there will likely be no indirect impacts to threatened, endangered or candidate plant species or
16 their habitat on the energy facility site.

17 18 **Retirement**

19 Pursuant to conditions and Council rules, when PEC retires the facility, it must restore the
20 site to a useful, non-hazardous condition following permanent cessation of construction or
21 operation of the facility. Site restoration would consist primarily of dismantling and removing
22 unneeded equipment and structures. In addition, the Council will require PEC to submit a
23 retirement plan before permanent shutdown of the facility. The plan would include measures to
24 minimize impacts to listed threatened, endangered or candidate plant species. The Council finds
25 that there will likely be no impacts to threatened, endangered or candidate plant species or their
26 habitat from the retirement of the energy facility.

27 28 **Avoidance/Mitigation Measures**

29 Because of the absence of threatened, endangered or candidate plant species within the
30 analysis area, there is no need for avoidance or mitigation measures.

31 32 **Conclusion: Consistency with Oregon Department of Agriculture Goals**

33 The Oregon Department of Agriculture, commenting on the Application, stated that:

34
35 “According to state law, if potential habitat occurs on the project property, the
36 project site must be surveyed for this species, and the Oregon Department of Agriculture
37 (ODA) must be notified of the results of this survey, before initiation of construction. The
38 applicant has already acquired (from the U.S. Fish and Wildlife and the Oregon Natural
39 Heritage Information Center) a listing of all known listed plant locations within the two
40 mile project impact area, and found that there are no known occurrences of listed plants
41 within this area. The Oregon Department of Agriculture would like to point out that this
42 step does not necessarily fulfill the requirements of ORS 564, since not all occurrences of
43 listed plants are known, and it is possible that an unknown occurrence might be located in
44 a project area. However, ODA concurs with the findings of the applicant. It is extremely
45 unlikely that any potential habitat for either of the two state-listed plants found in

1 Morrow County exists at the project site. Therefore, no additional survey is required, and
2 ODA has no further comments.”¹⁰
3

4 The Council finds that the operation, construction and retirement of the facility are not
5 likely to have an adverse impact on any threatened, endangered or candidate plant species or
6 their habitat.
7

8 **Threatened and Endangered Fish and Wildlife Species**

9 The Oregon Fish and Wildlife Commission designates state-listed threatened and
10 endangered wildlife species under ORS 496.172. OAR Chapter 635, Division 100, provides
11 authority for adoption of the state sensitive species list and the Wildlife Diversity Plan. It
12 contains the state list of threatened and endangered wildlife species. PEC reviewed ODFW
13 sources and consulted with the USFWS and with ORNHIC for information about state- and
14 federally-listed and candidate species.
15

16 No state-or federal-listed threatened or endangered wildlife species are known to occur in
17 the analysis area. However, several state- and federally-listed threatened (“T”), endangered
18 (“E”), or candidate (“C”) species have the potential to occur within the analysis area, including
19 Bald Eagle (*Haliaeetus leucocephalus*) (T), Yellow-Billed Cuckoo (*Coccyzus americanus*) (C),
20 Canada Lynx (*Lynx Canadensis*) (T), Washington Ground Squirrel (*Spermophilus washingtonii*)
21 (C), Mid-Columbia River Steelhead (*Oncorhynchus mykiss*) (T), Snake River Basin Steelhead
22 (*Oncorhynchus mykiss*) (T), Upper Columbia River Steelhead (*Oncorhynchus mykiss*) (E),
23 Snake River Sockeye Salmon – Salmon River Tributary to the Snake River (*Oncorhynchus*
24 *nerka*) (E), Upper Columbia River Chinook Salmon (*Oncorhynchus tshawytscha*) (E), and Snake
25 River Chinook Salmon (*Oncorhynchus tshawytscha*) (T). (PEC ASC, Exhibit Q, Table Q-1).
26 PEC did not detect any of the species within the analysis area.
27

28 Potential Impacts on Fish and Wildlife: PEC conducted wildlife surveys for the analysis
29 area and found none of the listed or candidate species. Listed or candidate fish species may be
30 impacted by construction and operation of the docking facility. However, that facility will be
31 constructed and operated by Tidewater Inc. in concert with the Port of Morrow, for the use of
32 other CEP and other industrial facilities as the Port of Morrow. Jurisdiction is with the US Army
33 Corps of Engineers. As described in section IV.H of this order, Tidewater has submitted a
34 Biological Assessment that describes potential impacts, avoidance measures and mitigation
35 measures to avoid and minimize the potential for impact on listed fish species. PEC found no
36 bald eagle nests or roosting areas within the analysis area. The nearest bald eagle nest was found
37 on the Columbia River at the mouth of the Umatilla River about 16 miles from the site boundary.
38 There would be no anticipated impacts to the bald eagle resulting from construction or operation
39 of the proposed facility.
40

41 **Construction and Operation**

42 Direct Impacts (Habitat Quantity). Based on the above discussion, the Council finds that
43 there will likely be no direct impacts to threatened, endangered or candidate fish or wildlife
44 species or their habitat on the energy facility site.
45

¹⁰ Email from Rebecca Currin, ODA to Adam Bless, ODOE, 10/11/2006

1 Indirect Impacts (Habitat Quality). Based on the above discussion, the Council finds that
2 there will likely be no indirect impacts to threatened, endangered or candidate fish or wildlife
3 species or their habitat on the energy facility site.
4

5 **Retirement**

6 Pursuant to conditions and Council rules, when PEC retires the facility, it must restore the
7 site to a useful, non-hazardous condition following permanent cessation of construction or
8 operation of the facility. Site restoration would consist primarily of dismantling and removing
9 unneeded equipment and structures. In addition, the Council will require PEC to submit a
10 retirement plan before permanent shutdown of the facility [Condition (IV.C.2)]. The plan would
11 include measures to minimize impacts to listed threatened, endangered or candidate fish or
12 wildlife species. The Council finds that there will likely be no impacts to threatened, endangered
13 or candidate fish or wildlife species or their habitat from the retirement of the energy facility.
14

15 **Avoidance/Mitigation Measures**

16 Because of the absence of threatened, endangered or candidate fish or wildlife species
17 within the analysis area, there is no need for avoidance or mitigation measures.
18

19 **Conclusion**

20 The Council finds that, subject to the conditions stated in this final order, PEC meets the
21 threatened and endangered species standard, OAR 345-022-0070.
22

23 **J. SCENIC RESOURCES, OAR 345-022-0080**

- 24 (1) *Except for facilities described in sections (2), to issue a site certificate,*
25 *the Council must find that the design, construction and operation of the*
26 *facility, taking into account mitigation, are not likely to result in*
27 *significant adverse impact to scenic resources and values identified as*
28 *significant or important in local land use plans tribal land management*
29 *plans and federal land management plans located within the analysis*
30 *area described in the project order. ****
31

32 **Discussion**

33 The analysis area for scenic and aesthetic values is the area within the site boundary and
34 30 miles from the site boundary.
35

36 Within the analysis area, PEC identified the following federal land management and local
37 land use plans:
38

- 39 • John Day Proposed Management Plan, Two Rivers and John Day Resource
40 Management Plan Amendments and Final Environmental Impact Statement,
41 (Record of Decision, February 2001)
- 42 • Proposed Two Rivers Resource Management Plan Final Environmental Impact
43 Statement, September 1985 (Record of Decision, June 1986)
- 44 • Baker Resource Management Plan (Record of Decision, July 1989)
- 45 • Proposed Spokane Resource Management Plan Amendment Final Environmental
46 Impact Statement (1992)

- 1 • Management and Use Plan Update Final Environmental Impact Statement, Oregon National Historic Trail and Mormon Pioneer National Historic Trail, August 1999 (Record of Decision, November 1999)
- 2
- 3
- 4 • Lewis and Clark National Historic Trail Comprehensive Plan for Management and Use (January 1982)
- 5
- 6 • Morrow County, Oregon, Comprehensive Plan (January 30, 1986)
- 7 • Umatilla County, Oregon, Comprehensive Plan (May 9, 1983; Amended December 2, 1987)
- 8
- 9 • Gilliam County, Oregon, Comprehensive Plan (October 25, 2000)
- 10 • Benton County, Washington, Comprehensive Plan (1997)
- 11 • Klickitat County, Washington, Comprehensive Plan (August 1977)
- 12 • Yakima County, Washington, Policy Plan (May 20, 1997; Amended December 28, 1998)
- 13
- 14

15 Scenic and aesthetic values identified as significant in the federal land management plans and local land use plans applicable to the analysis area, together with distance and direction from the energy facility site, are shown in Table 3.

16
17
18
19 Construction, operation and retirement of the proposed facility would not result in any loss of vegetation or alteration of the landscape in any of the identified scenic and aesthetic resources.

20
21
22
23 According to computer modeling and visibility analyses, field investigation, and interviews with local, state, and federal agency staff conducted by PEC, the proposed facility would not be visible from the National Historic Oregon Trail sites and segment in the analysis area. Given the viewing distances ranging from 15 to 20 miles, it is unlikely that the steam plume would be visible from the trail sites. If it were visible, impacts, if any, would be negligible due to attenuating factors such as distance, haze, humidity, background landscape, light conditions or weather.

24
25
26
27
28
29
30
31 **TABLE 3**
32 **SCENIC AND AESTHETIC VALUES IDENTIFIED AS SIGNIFICANT IN APPLICABLE FEDERAL LAND**
33 **MANAGEMENT PLANS AND LOCAL LAND USE PLANS**
34

Scenic and Aesthetic Value	Direction and Distance from Facility
Oregon National Historic Trail High Potential Sites and Segment:	
• Echo Complex	Southeast, 23.8 miles
• Echo Meadows	Southeast, 19.4 miles
• Well Spring	South, 15.5 miles
• Boardman Segment	South, 14.1 miles
• Fourmile Canyon	Southwest, 24.8 miles

35
36

1 **Conclusion**

2 The Council finds that PEC meets the scenic and aesthetic values standard, OAR 345-
3 022-0080.

4
5 **K. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES, OAR 345-022-0090**

6 (1) *Except for facilities described in sections (2) and (3), to issue a site*
7 *certificate, the Council must find that the construction and operation of*
8 *the facility, taking into account mitigation, are not likely to result in*
9 *significant adverse impacts to:*

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

13 (b) *For a facility on private land, archaeological objects, as defined in*
14 *ORS 358.905(1)(a), or archaeological sites, as defined in ORS*
15 *358.905(1)(c); and*

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

18
19 **Discussion**

20 The analysis area for historical, cultural and archaeological resources is the area within
21 the site boundary. This area would include the energy facility site and the ethanol pipeline
22 corridor.

23
24 Archaeological Investigators Northwest, Inc. (“AINW”) conducted cultural resource
25 surveys to address State of Oregon laws protecting significant archaeological sites. The work
26 was completed using federal compliance standards and was done by AINW staff meeting the
27 professional qualification standards of the Secretary of the Interior. In addition to the fieldwork,
28 AINW performed a literature review and records search to identify previously recorded sites and
29 surveys near the proposed facility site and to determine if archaeological resources had been
30 previously identified in the facility area.

31
32 **Resources Listed or Eligible for Listing in the National Register of Historic Places.**

33 In the course of its cultural resource survey, AINW determined that one archaeological site near
34 the proposed facility (site “35MW13”) had been previously recorded in the National Register of
35 Historic Places (“NRHP”). In the course of its field investigations, AINW encountered five
36 pieces of lithic debitage of cryptocrystalline silicate at varying depths between the surface and 39
37 inches below the surface at shovel test ST-2 near the proposed barge docking facility and about
38 100-115 feet south of the recorded boundary of 35MW13. Accordingly, the boundaries of
39 35MW13 have been revised to incorporate the ST-2 location, and a site form amendment has
40 been prepared. AINW also found one lithic debitage fragment on the surface at shovel test ST-18
41 in the proposed ethanol pipeline alignment and about 820 feet south of the boundary of
42 35MW13. This surface find was recorded as prehistoric isolate 06/1288-IS-1.

43
44 In comments on the application, the State Historic Preservation Officer (SHPO) raised
45 concerns primarily about the ethanol pipeline that will connect the CEP with the barge loading
46 facility. The barge loading facility will be constructed and operated by Tidewater, and therefore

1 all permits associated with its construction and operation are considered “third party” and not
2 under direct Council review. However, the SHPO noted that it is unclear where the Tidewater
3 responsibility ends and where PEC’s responsibility begins. He noted that site 35MW13 is not
4 well mapped and in fact its boundaries are not well known. This is largely due to previous
5 development and also due to silt deposition from the hydroelectric dam. In follow-up
6 correspondence, the SHPO noted that the existing rail loop was constructed without
7 archeological surveys, possibly further damaging the archeological site. Finally, the SHPO noted
8 that the true extent of the archeological site could extend half a mile along the shoreline of the
9 Columbia River, and could extend inland from the river as far as the existing loop track. The
10 archeological site may also have been degraded during prior work by the Port of Morrow.
11

12 In response to SHPO’s concerns, PEC provided clarification on the final location of the
13 ethanol pipeline, the boundary between PEC’s portion and Tidewater’s portion, and steps to
14 ensure no further degradation of site 35MW13. In particular, PEC added the following
15 supplemental information to the application:
16

- 17 i The location of the ethanol pipeline will be moved as shown on Figure C-2 rev. 2 dated
18 2/15/07. The boundary between PEC’s portion and Tidewater’s portion is as shown on
19 this figure.
20
- 21 ii The pipeline may be constructed underground between the ethanol production plant and
22 the existing loop track. The pipeline will cross the loop track by horizontal bore. On the
23 shore (north) side of the existing loop track, the pipeline will be placed above ground on
24 footings designed substantially as shown in the Norwest Engineering Drawing provided
25 to the Oregon Department of Energy and dated 2/21/07.
26
- 27 iii PEC will ensure that an archeological monitor is on site during excavation of the trench
28 and subsequent boring of the pipeline.
29

30 In its ASC, PEC describes actions that are designed to address the Council’s historic,
31 cultural and archaeological resources standard. The Council considers the following actions to be
32 commitments by PEC. To find that PEC complies with OAR 345-022-0090, the Council adopts
33 the following conditions in the site certificate:
34

- 35 **(IV.K.1) Before beginning construction of the proposed related or supporting**
36 **ethanol pipeline, the certificate holder shall conduct additional**
37 **investigation to better define the vertical and horizontal extent of the**
38 **archaeological resources in the vicinity of the proposed ethanol**
39 **pipeline in consultation with the Oregon Historic Preservation Office**
40 **(“SHPO”) and the Confederated Tribes of the Umatilla Indian**
41 **Reservation. The investigation shall include protocols and procedures**
42 **for protection of known cultural sites, including the identification of**
43 **sites in the field and on project construction maps, and for accidental**
44 **discovery of additional sites.**
45

1 **(IV.K.2) During construction of the facility, the certificate holder shall ensure**
2 **that a qualified person instructs construction personnel in the**
3 **identification of archaeological and cultural resources, and ensure**
4 **that archaeological construction monitors are present to prevent**
5 **accidental impacts to known cultural resources or to any newly**
6 **discovered resources.**
7

8 To find that PEC complies with OAR 345-022-0090, the Council adopts the following
9 standard condition in the site certificate:

10
11 **(IV.K.3) During construction of the facility, in the event any archaeological or**
12 **cultural resources are discovered, the certificate holder shall cease all**
13 **ground-disturbing activities in the immediate area until a qualified**
14 **archaeologist can evaluate the significance of the find. If the**
15 **archaeologist determines that the resources are significant, the**
16 **certificate holder shall make recommendations to the Council for**
17 **mitigation in consultation with the State Historic Preservation Office**
18 **(“SHPO”), the Department, the Confederated Tribes of the Umatilla**
19 **Indian Reservation, and other appropriate parties. Mitigation**
20 **measures shall include avoidance or data recovery. The certificate**
21 **holder shall not restart work in the affected area until it has**
22 **demonstrated to the Department that it has complied with the**
23 **archaeological permit requirements administered by SHPO.**
24

25 The representations made by PEC in correspondence with ODOE and SHPO are
26 considered commitments by the applicant. Based on these representations, the Council adopts the
27 following conditions in the site certificate:

28
29 **(IV.K.4) The location of the ethanol pipeline will be moved as shown on Figure**
30 **C-2 rev. 2, dated 2/15/07. The boundary between the certificate**
31 **holder’s portion and Tidewater’s portion is as shown on this figure.**
32

33 **(IV.K.5) The pipeline may be constructed underground between the ethanol**
34 **production plant and the existing loop track. The pipeline will cross**
35 **the loop track by horizontal bore. On the north side of the existing**
36 **loop track, the pipeline will be placed above ground on footings**
37 **designed substantially as shown in the Norwest Engineering Drawing**
38 **provided to the Oregon Department of Energy and dated 2/21/07.**
39

40 **(IV.K.6) The certificate holder shall ensure that a qualified archeological**
41 **monitor is on site during excavation of the trench and subsequent**
42 **boring of the pipeline.**
43

44 **Conclusion**

45 The Council finds that, subject to the conditions stated in this final order, PEC meets the
46 historic, cultural and archaeological resources standard, OAR 345-022-0090.

1
2 **L. RECREATION, OAR 345-022-0100**

3 (1) *Except for facilities described in section (2), to issue a site certificate, the*
4 *Council must find that the design, construction and operation of a facility,*
5 *taking into account mitigation, are not likely to result in a significant*
6 *adverse impact to important recreational opportunities in the analysis*
7 *area as described in the project order. The Council shall consider the*
8 *following factors in judging the importance of a recreational opportunity:*

- 9 (a) *Any special designation or management of the location;*
10 (b) *The degree of demand;*
11 (c) *Outstanding or unusual qualities;*
12 (d) *Availability or rareness;*
13 (e) *Irreplaceability or irretrievability of the opportunity. ****

14
15 **Discussion**

16 The analysis area for recreational opportunities is the area within the site boundary and
17 five miles from the site boundary.

18
19 Existing and proposed recreational opportunities within the analysis area include:
20 Umatilla National Wildlife Refuge, Columbia River, Coyote Springs Wildlife Area, Columbia
21 River Heritage Trail, and The Marina Park at Boardman. The direction and distance from the
22 facility of each of these recreational opportunities are described in Table 4.

23
24 **TABLE 4**
25 **RECREATIONAL OPPORTUNITIES IN COLUMBIA ETHANOL PROJECT ANALYSIS AREA**

26

Recreational Opportunity	Direction and Distance from Facility
Umatilla National Wildlife Refuge	North, 4.6 miles
Columbia River	North, 0.5 mile
Coyote Springs Wildlife Area	Southeast, 1.3 miles
Columbia River Heritage Trail	South, 0.2 mile
The Marina Park at Boardman	West, 3 miles

27
28 Recreational opportunities within the analysis area include water-based recreation
29 activities on the Columbia River, such as boating, fishing, and waterfowl hunting, upland and
30 limited big game hunting, nature and wildlife photography, and trail walking. There are no
31 recreational opportunities within the site boundary.

32
33 **Direct or Indirect Loss of an Opportunity:** There would be no direct loss at any of the
34 identified recreational opportunities.

35
36 There could be an indirect loss at the McCormack Unit of the Umatilla National Wildlife
37 Refuge resulting from an impact to groundwater levels affecting shallow marsh habitat and a
38 corresponding reduction in the presence of waterfowl and other species dependent on this habitat
39 type. The indirect impact, if any, is expected to be negligible.

1
2 There could be an indirect loss on the Columbia River resulting from barge traffic. PEC
3 estimates there would be three barges per week entering and exiting the docking facility. Indirect
4 impacts from barge traffic could include wake disturbance to hunters, fishers, and boaters. The
5 indirect impact, if any, is expected to be very low.
6

7 There could be an indirect loss at the Coyote Springs Wildlife Area resulting from traffic
8 impacts. The indirect impact, if any, is expected to be low.
9

10 There could be an indirect loss at the Columbia River Heritage Trail resulting from traffic
11 impacts to portions of the trail in the immediate vicinity of the facility. The indirect impact, if
12 any, is expected to be low.
13

14 There could be an indirect loss at The Marina Park resulting from traffic impacts to the
15 access route to the park. The indirect impact, if any, is expected to be negligible.
16

17 The Council finds that there would be no direct loss or significant indirect loss of an
18 opportunity as a result of construction or operation of the facility.
19

20 **Noise:** Projected noise levels resulting from construction and operation of the facility
21 would be minimal. The nearest sensitive noise receptor, a residential property located about 0.9
22 mile from the facility, would not be affected by the facility. Accordingly, the Umatilla National
23 Wildlife Refuge, Coyote Springs Wildlife Area and The Marina Park, all of which are more than
24 one mile from the facility, would not be affected by noise from the facility. Although the
25 Columbia River and the Columbia River Heritage Trail occur in close proximity to the facility,
26 the river and trail are currently exposed to noise emanating from the operation of equipment and
27 movement of large transport vehicles at the Port of Morrow, the Boardman Industrial Park, and
28 other nearby industries.
29

30 The Council finds that noise from the facility would not result in a significant adverse
31 impact to any recreational opportunity.
32

33 **Traffic:** During construction of the facility, construction-related traffic could cause short-
34 term delays when trucks deliver equipment and the preassembled portions of the facility. Those
35 delays will be temporary and are not expected to have an adverse impact on highways in the
36 vicinity of the facility. Construction-related traffic delays on local roadways could occur but are
37 expected to be limited due to the low use of the local roadways. Under the worst-case scenario
38 under which all corn deliveries and ethanol product shipments were transported by truck,
39 operation of the facility could cause traffic to increase by up to 284 trips per day, seven days per
40 week. This increase falls short of the threshold under which Morrow County would require the
41 applicant to complete a traffic impact assessment. Roads in the vicinity of the facility are lightly
42 traveled and would be able to accommodate the increased traffic. Construction and operation of
43 the facility would not work an undue hardship on recreational opportunities in the analysis area.
44

45 The Council finds that traffic generated by construction and operation of the facility
46 would not result in a significant adverse impact to any recreational opportunity.

1
2 **Water Use:** PEC would purchase water from the Port of Morrow, which supplies users in
3 the Boardman Industrial Park with water for industrial use. The water is obtained from a
4 horizontal Ranney well collection system adjacent to and under the Columbia River under an
5 existing water right. PEC does not expect its use of water to affect the McCormack Unit of the
6 Umatilla National Wildlife Refuge, because the water needed for operation of the facility would
7 be drawn from the Columbia River and the shallow marsh habitat at the McCormack Unit is
8 driven primarily by groundwater, not river levels.
9

10 The Council finds that water use at the facility would not result in a significant adverse
11 impact to any recreational opportunity.
12

13 **Wastewater Disposal:** Wastewater could be generated during construction of the facility
14 as a result of the wash-down of concrete trucks. However, such wash-down will be the
15 responsibility of the contractor and is expected to occur at the contractor-owned batch plant.
16 Portable toilets would be provided for on-site sewage and would be pumped and cleaned
17 regularly by the construction contractor. Industrial wastewater generated during operation of the
18 facility would be treated at the Port of Morrow industrial wastewater treatment facility. Sewage
19 for toilets and sinks would be treated at the Boardman wastewater treatment plant located in
20 Boardman. Wastewater resulting from construction and operation of the facility would not affect
21 recreational opportunities in the analysis area.
22

23 The Council finds that wastewater disposal at the facility would not result in significant
24 adverse impacts to any recreational opportunity.
25

26 **Visual Impacts of Facility Structures:** The facility, including the cooling tower,
27 distillation towers and plume, will be visible from the five important recreational opportunities in
28 the analysis area. However, the facility is located in an area already heavily affected by industrial
29 development and would be compatible with applicable federal and local land use plans
30 governing those facilities.
31

32 The Council finds that the visual impacts of facility structures would not result in a
33 significant adverse impact to any recreational opportunity.
34

35 **Visual Impacts from Air Emissions:** Air emissions from the facility have been
36 permitted by ODEQ and are not expected to have adverse impacts on recreational opportunities.
37 Dust generated during construction of the facility would be controlled by watering and would be
38 temporary and negligible.
39

40 The Council finds that the visual impacts from air emissions of the facility would not
41 result in a significant adverse impact to any recreational opportunity.
42

43 **Conclusion**

44 The Council finds that PEC meets the recreation standard, OAR 345-022-0100.
45

1 **M. PUBLIC SERVICES, OAR 345-022-0110**

2 (1) *Except for facilities described in sections (2) and (3), to issue a site*
3 *certificate, the Council must find that the construction and operation of*
4 *the facility, taking into account mitigation, are not likely to result in*
5 *significant adverse impact to the ability of public and private providers*
6 *within the analysis area described in the project order to provide: sewers*
7 *and sewage treatment, water, storm water drainage, solid waste*
8 *management, housing, traffic safety, police and fire protection, health*
9 *care and schools. ****

10
11 **Discussion**

12 The analysis area for the public services standard is the area within the site boundary and
13 30 miles from the site boundary.

14
15 **Sewers and Sewage Treatment:** The facility will be connected to the Port of Morrow
16 wastewater collection system. Wastewater from toilets and sinks will be piped from the facility
17 by means of the Port collection system to a pressure main that connects the system with the City
18 of Boardman collection and treatment system. The Boardman treatment plant has recently
19 undergone upgrades to accommodate development within the City and the Port.

20
21 Industrial wastewater will be collected in a separate system owned and operated by the
22 Port of Morrow. Industrial wastewater is dispersed on Port-owned land. The Port's existing
23 industrial wastewater permit with ODEQ is adequate, but because of the projected demand for
24 industrial wastewater collection and treatment as the Port adds tenants, the Port is working with
25 ODEQ to modify its permit and increase its capacity. Consequently, the Port may be required to
26 purchase additional land for land application.

27
28 The nearest alternative system serves the City of Boardman, about 0.5 miles from the
29 facility site. The City has recently completed extensive upgrades to its existing system to
30 accommodate projected Port and City needs. Both the Port of Morrow and City of Boardman
31 have confirmed that with the existing and proposed upgrades, their wastewater collection and
32 treatment systems would have the capacity to accommodate the facility and projected growth
33 within Boardman, and that the facility would not be expected to adversely affect those systems.

34
35 The Council finds that construction and operation of the facility would not result in any
36 significant adverse impact on the ability of sewage collection and treatment systems within the
37 analysis area to serve their other users.

38
39 **Water:** The facility will connect to the existing Port of Morrow water system, which is
40 adequate to meet current demand, including the facility. The Port currently draws its water from
41 its own wells and supplies water to facilities within the Port boundaries. The Port plans to
42 increase capacity to provide up to 13,000 gallons per minute by using existing wells and
43 constructing a Ranney system under the Columbia River. In addition, the Port would install a
44 new 30-inch main supply line to serve Port industries. The Port estimates that the proposed
45 improvements would meet the demands of the Port at full build out. Based on the existing and

1 proposed capacity improvements, no adverse impacts to the local water system are expected to
2 occur as a result of construction or operation of the facility.

3
4 The Council finds that construction and operation of the facility would not result in any
5 significant adverse impact on the ability of the water system within the analysis area to serve
6 other users.

7
8 **Storm Water:** The Port of Morrow does not provide storm water collection, but requires
9 businesses located on Port property to manage storm water on site, typically using catch basins
10 and filter strips. PEC has obtained a NPDES Storm Water Discharge General Permit #1200-C for
11 construction activities. During operation of the facility, PEC would address storm water with on-
12 site vegetation filter strips and infiltration.

13
14 The Council finds that construction and operation of the facility would not result in any
15 significant adverse storm water impacts.

16
17 **Solid Waste Management:** The Port of Morrow contracts with Sanitary Disposal and
18 Recycling to provide refuse and recycling collection. Hermiston Sanitation and Recycling would
19 provide drop boxes during construction and regular pick up during operation of the facility.
20 Garbage is generally transported to Finley Buttes, a private landfill, or the Columbia Ridge
21 Recycling and Landfill site near Arlington. Sanitary Disposal and Recycling does not provide
22 hazardous waste pickup, but hazardous waste disposal is available at Chemical Waste
23 Management of the Northwest, a facility located adjacent to the Columbia Ridge facility.

24
25 Temporary and permanent population increases resulting from construction and operation
26 of the facility will be small compared to the population of the affected communities. Sanitary
27 Disposal and Recycling already provides services for all of the Port and Morrow County and has
28 adequate capacity to accommodate constructed-related debris and service to the operating
29 facility. The facility would not adversely affect the ability of Hermiston Sanitation and Recycling
30 to provide solid waste collection services. Furthermore, the facility would not adversely affect
31 the ability of providers in adjacent communities to provide refuse and recycling services, because
32 those providers provide such services only in the communities' city limits. Area landfills are not
33 expected to reach capacity for the foreseeable future.

34
35 The Council finds that construction and operation of the facility would not have a
36 significant adverse impact on the capacity of solid waste facilities in the analysis area.

37
38 **Housing:** PEC expects about 100 temporary construction workers would be needed for
39 the duration of the construction effort and that 80 percent of the construction workforce would
40 come from communities within the analysis area. There are several potential temporary housing
41 options within the analysis area, including motels in Boardman, Arlington and Hermiston.
42 Accordingly, construction of the facility is not expected to cause any adverse impact to
43 temporary housing in the analysis area.

44
45 The demand for permanent housing in the analysis area is not expected to increase
46 significantly during operation of the facility. The facility would employ about 30 to 35 full-time

1 and part-time employees. Only 5 new employees are expected to move to area, with the
2 remainder hired locally. Accordingly, operation of the facility is not expected to cause any
3 adverse impact to permanent housing in the analysis area.
4

5 The Council finds that construction and operation of the facility would not have a
6 significant adverse impact on housing in the analysis area.
7

8 **Traffic Safety:** Construction related traffic could cause short-term delays when trucks
9 deliver equipment and preassembled portions of the facility to the facility site. Those deliveries
10 and shipments would be by means of public highways and roads, and delays will be temporary
11 and are not expected to have an adverse impact on highways and public roads in the analysis
12 area.
13

14 Under the worst-case scenario (assuming all corn deliveries and ethanol product
15 shipments were by truck), operation of the facility is anticipated to generate about 284 trips per
16 day, seven days per week. Because the number of trips would be less than 400 trips per day,
17 Morrow County would not require PEC to complete a traffic impact assessment. Roads within
18 the facility area are lightly traveled and would be able to accommodate the increased traffic.
19 Increased traffic is not expected to have an adverse impact on highways and public roads in the
20 analysis area. Moreover, PEC chose the site specifically for its existing rail facility and for the
21 efforts by the Port of Morrow and Tidewater to construct a general barge loading facility.
22 Considerable permitting work by Tidewater has already been done towards construction of the
23 loading facility. And, PEC must ship at least 90% of its output by barge and rail unless it has a
24 site certificate. For these reasons, it is unlikely that this worst-case scenario will occur.
25

26 The Council finds that construction and operation of the facility would not have a
27 significant adverse impact on traffic safety in the analysis area.
28

29 **Police Protection:** The Morrow County Sheriff's Department has 15 full-time officers
30 and provides police service for all of Morrow County, including the Port of Morrow and the
31 facility site. The Gilliam and Umatilla County Sheriff's Departments employ 4 and 9 full-time
32 officers, respectively. The Morrow, Gilliam and Umatilla Sheriff's Departments have all entered
33 into agreements to provide backup services to one another, when needed.
34

35 The small population increase resulting from construction and operation of the facility
36 would not have a significant adverse impact on local police services. In discussions with the
37 Morrow County Sheriff's Department, PEC was advised that the Sheriff's Department had no
38 concerns about the in-migrant construction workers or any need for increased patrols near the
39 facility site during construction or operation. The facility would not have a significant adverse
40 impact on police service in the analysis area.
41

42 The Council finds that construction and operation of the facility would not have a
43 significant adverse impact on police protection services in the analysis area.
44

45 **Fire Protection and Emergency Response:** The facility site is located in the Boardman
46 Rural Fire Department service area based in Boardman. The Fire Department provides fire

1 protection and has trained EMT volunteers, although it does not provide ambulance services. The
2 Morrow County Health District provides ambulance service in the affected area.

3
4 PEC agreed to pay for 8 fire department personnel to attend a one-week training seminar
5 designed to educate staff in the proper procedures to respond to a fire at a facility that handles
6 highly flammable materials. Other fire department staff will be trained as part of agreements
7 with other proposed industrial facilities that plan to locate at the Port of Morrow. In addition, the
8 Fire Department has reviewed and approved the CEP fire suppression system and location of fire
9 hydrants.

10
11 Interviews conducted by PEC with the Boardman Rural Fire Department and the Morrow
12 County Health District indicated that the facility would not affect their ability to provide fire
13 protection or ambulance service for their service areas.

14
15 The Boardman Rural Fire Department commented by telephone call to Adam Bless of the
16 Oregon Department of Energy. It stated that, given the number of ethanol facilities proposed for
17 the Port of Morrow, the barge loading dock could see considerable throughput. The Fire
18 Department stated that they would prefer the various ethanol developers to pipe product to the
19 loading dock through a common pipe, rather than a number of individual pipes.

20
21 The fire department's comment is appreciated. However, three of the four ethanol
22 facilities proposed for at the Port are exempt from EFSC jurisdiction. Indeed, if PEC were able to
23 ship its entire product by barge and rail, it would also be exempt. The Council cannot compel the
24 exempt facilities to meet conditions. The Port of Morrow and the Fire District are encouraged to
25 work with the exempt developers regarding a common ethanol pipeline. The Council will
26 entertain an amendment request from Pacific Ethanol, should such an arrangement with the other
27 developers be reached.

28
29 The Council finds that construction and operation of the facility would not have a
30 significant adverse impact on fire protection and emergency response services in the analysis
31 area.

32
33 **Health Care:** Good Shepherd Community Hospital is the only hospital in the analysis
34 area. The facility provides emergency and surgical care and can accommodate most types of
35 injuries, although cardiac emergencies are stabilized at the hospital and then patients are
36 transported to Saint Anthony's in Pendleton. St. Anthony's is a full service facility that has a
37 larger and more expansive capability than Good Shepherd. If an accident were to occur at the
38 facility site, ambulance service provided by Morrow County Health District would transport
39 patients to Good Shepherd. Evacuation by helicopter is also available.

40
41 The Mid-Columbia Medical Center, located in The Dalles, is a regional full-service
42 medical facility that would treat patients from Good Shepherd or Saint Anthony's if those
43 hospitals did not have the capability to treat a particular type of injury. The Center provides
44 emergency services as well as surgery.

1 The facility would not adversely affect medical services in the analysis area or the region.
2 Good Shepherd and Saint Anthony's would probably be able to provide necessary services, and
3 Mid-Columbia Valley Medical Center would be available in the event more specialized services
4 were required.

5
6 The Council finds that construction and operation of the facility would not have a
7 significant adverse impact on medical services in the analysis area.
8

9 **Schools:** The Morrow County School District serves all of Morrow County. The school
10 district operates 3 junior/senior high schools (grades 7 to 12) and 6 elementary schools, serving
11 about 2,300 students. The number of students in the school district is increasing at about 3
12 percent annually (about 50 students per year). The school district recently successfully passed a
13 bond to construct new schools and add capacity to meet future demand. Currently, the Morrow
14 County School District has adequate capacity to accommodate students.
15

16 PEC expects there would be no adverse impact to local schools resulting from
17 construction or operation of the facility. No demand on school facilities is expected from
18 construction of the facility, because the small portion of the construction work force that might
19 temporarily live in the area is likely to include few, if any, families. The number of in-migrant
20 operational staff is expected to be small, creating few new households with school-age children.
21 PEC conducted interviews with local school districts and was assured that the small number of
22 potential new students would not have a significant adverse impact on the school districts, and all
23 districts would be able to accommodate students with their existing capacity.
24

25 The Council finds that construction and operation of the facility would not have a
26 significant adverse impact on schools in the analysis area.
27

28 **Conclusion**

29 The Council finds that, subject to the conditions stated in this final order, PEC meets the
30 public services standard, OAR 345-022-0110.
31

32 **N. WASTE MINIMIZATION, OAR 345-022-0120**

33 (1) *Except for facilities described in sections (2) and (3), to issue a site*
34 *certificate, the Council must find that, to the extent reasonably*
35 *practicable:*

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

41 (b) *The applicant's plans to manage the accumulation, storage,*
42 *disposal and transportation of waste generated by the construction*
43 *and operation of the facility are likely to result in minimal adverse*
44 *impact on surrounding and adjacent areas. ****
45
46

1 **Discussion**

2 PEC proposes to implement waste minimization and recycling measures during
3 construction, operation and retirement of the facility.

4
5 **Solid Waste**

6 Construction. PEC will generate a variety of non-hazardous, inert construction wastes
7 during construction of the facility. The major solid waste types will be concrete and asphalt
8 waste, wood waste, and steel scrap. Some additional wastes could include erosion control
9 materials, such as straw bales and silt fencing, and packaging materials from plant parts and
10 other electrical equipment.

11
12 Generation of construction wastes will be minimized through the use of detailed
13 estimates of materials needed and efficient construction practices. Wastes generated during
14 construction will be recycled, when feasible. Steel scrap will be collected and transported to a
15 recycling facility. Wood waste will be recycled to the extent feasible. Concrete waste will be
16 used as fill onsite or at another site or, if no reuse option is available, removed to the local
17 landfill. Packaging wastes, including paper and cardboard, will be separated and recycled. Non-
18 recyclable wastes will be collected and transported to a local landfill.

19
20 Operation. During operation, the facility would generate office waste, such as paper and
21 food packaging and scraps. In addition, it would generate some minor and potentially hazardous
22 wastes, including lubricants, coolants, or similar wastes related to gear lubrication and other
23 maintenance. The only other source of waste would be incidental waste from repair and
24 replacement of equipment.

25
26 Minimal waste will be generated during operation of the facility. Office waste would be
27 collected and recycled, when feasible. Non-recyclable wastes would be collected and transported
28 to a local landfill, most likely the Finley Buttes Landfill located near Boardman.

29
30 Retirement. Measures for reducing, reusing and recycling solid waste upon retirement
31 would be addressed as part of the retirement plan that the Council must approve before
32 retirement of the facility [Condition (IV.C.2)].

33
34 **Wastewater**

35 Construction. During construction of the facility, PEC will provide portable toilets to
36 serve on-site sewage handling. The toilets will be pumped and cleaned regularly by the
37 construction contractor. PEC would manage storm water in conformance with its NPDES Storm
38 Water Discharge General Permit #1200-C. Wastewater will be generated from washdown of
39 equipment during earthwork and construction phases. Concrete trucks could also be cleaned after
40 concrete loads had been emptied. Washdown will be the responsibility of the contractor and will
41 probably occur at a contractor-owned batch plant.

42
43 Operation. During operation of the facility, industrial wastewater would be treated at the
44 Port of Morrow industrial wastewater treatment facility. Sewage from toilets and sinks would be
45 treated at the Boardman wastewater treatment plant in Boardman.

1 Retirement. Measures for controlling wastewater upon retirement would be addressed as
2 part of the retirement plan that the Council must approve before retirement of the facility
3 [Condition (IV.C.2)].
4

5 **Impact on Surrounding and Adjacent Areas**

6 Due to the small quantity and inert nature of most of the potential waste, there is no
7 anticipated adverse impact on surrounding or adjacent areas from wastes generated at the facility
8 during construction, operation, or retirement. Most waste would be removed from the site and
9 reused, recycled or transported to an appropriate landfill or hazardous waste disposal facility.
10 Any waste disposed of on site, such as concrete waste, will be inert and will be disposed of in a
11 manner consistent with applicable regulations and in a manner protective of human health and
12 the environment.
13

14 **Conclusion**

15 The Council finds that, subject to the conditions stated in this final order, PEC meets the
16 waste minimization standard, OAR 345-022-0120.
17

18 **O. CO₂ STANDARD FOR NONGENERATING ENERGY FACILITIES, OAR 345-024-0620**

19 *To issue a site certificate for a nongenerating energy facility that emits carbon dioxide, the*
20 *Council must find that the net carbon dioxide emissions rate of the proposed facility does*
21 *not exceed 0.504 pounds of carbon dioxide per horsepower hour. The Council shall*
22 *determine whether the carbon dioxide emissions standard is met as follows****
23

24 **Discussion**

25 For informational purposes, PEC reported that natural gas consumed at design capacity
26 would be an average of 3 million cubic feet per day. Non-fuel burning carbon dioxide releases
27 would occur as part of the fermentation process. At design capacity, carbon dioxide released as
28 part of the fermentation process would be about 138,390 tons per year. The Council does not
29 have a carbon dioxide standard for ethanol production facilities.
30

31 **Conclusion**

32 The Council finds that there is no applicable carbon dioxide standard for ethanol
33 facilities.
34

35 **V. OTHER APPLICABLE REGULATORY REQUIREMENTS**

36 **A. REQUIREMENTS UNDER COUNCIL JURISDICTION**

37 Pursuant to ORS 469.503(1)(b), the Council must determine that the proposed facility
38 complies with all other Oregon statutes and administrative rules identified in the Project Order as
39 applicable to the issuance of a site certificate.
40

41 Applicable Oregon statutes and administrative rules identified in the Project Order that
42 are not addressed in any of the Council's standards are discussed in this section of the final order.
43 These include DEQ's noise control regulations and Water Pollution Control Facilities permit
44 requirements, the Department of State Lands' ("DSL") Removal/Fill Permit regulations for
45

1 disturbance to wetlands, and the Council's statutory authority to consider protection of the public
2 health and safety.

3
4 **1. Noise**

5
6 **The Requirement.** The ODEQ *Noise Control Regulations for Industry and Commerce*
7 apply to the noise generated by the CEP. Under the ODEQ noise control regulations, the CEP
8 would be considered a “new industrial or commercial noise source” because construction and
9 operation of the energy facility began after January 1, 1975 (OAR 340-035-0015(33)). In
10 addition, the site for the new noise source would be considered a “previously unused industrial or
11 commercial site” under the ODEQ noise regulation because it has not been used by an industrial
12 or commercial source in the 20 years prior to the use by the CEP [OAR 340-035-0015 (47)]. The
13 applicable regulation requires that:

14
15 *“No person owning or controlling a new industrial or commercial noise source*
16 *located on a previously unused industrial or commercial site shall cause or*
17 *permit the operation of that noise source if the noise levels generated or indirectly*
18 *caused by that noise source increase the ambient statistical noise levels, L₁₀ or*
19 *L₅₀, by more than 10 dBA in any one hour, or exceed the levels specified in Table*
20 *8, as measured at an appropriate measurement point..OAR*
21 *340-035-0035(1)(b)(B)(i)***.”*
22

23 **Discussion**

24 The Council applies the above ODEQ noise regulation to evaluate the noise that will
25 radiate from the CEP. The ethanol production facility site lies within the Port of Morrow’s
26 Boardman Industrial Park and it is zoned for industrial uses but the site itself has never been used
27 by an industrial or commercial noise source during the 20 years prior to the proposed date of
28 operation. Therefore, under the ODEQ noise regulation, the site is considered a “previously
29 unused industrial or commercial site”.

30
31 The ODEQ noise regulation has two criteria that apply to a new noise source located on a
32 “previously unused industrial or commercial site.” The first criterion, presented in Table 8 of the
33 ODEQ noise regulation, establishes the maximum hourly statistical noise levels that may radiate
34 from a new noise source to a “noise sensitive receiver” such as a residence, church, school, or
35 hospital. The criterion limits the maximum hourly L₅₀, L₁₀ and L₀₁ noise levels radiating to a
36 noise sensitive receiver from a commercial or industrial noise source to 55, 60 and 75 dBA
37 respectively between 7 a.m. and 10 p.m. and 50, 55, and 60 dBA respectively between 10 p.m.
38 and 7 a.m. The hourly L₅₀, L₁₀ and L₀₁ noise levels are defined as the noise level equaled or
39 exceeded 50 percent, 10 percent and 1 percent of the hour, respectively. The criterion is often
40 referred to as the “maximum allowable noise level” criterion.

41
42 The second criterion requires that the new noise source not increase the ambient hourly
43 L₁₀ or L₅₀ statistical noise levels at a noise sensitive receiver by more than 10 dBA. This criterion
44 is intended to prevent large increases in background noise levels at a receiver, and it is often
45 referred to as the "ambient noise degradation rule."
46

1 Because the ethanol production facility could operate continuously over a 24-hour period
2 and because ODEQ noise regulations are generally more restrictive during nighttime hours than
3 during daytime hours, noise from the facility would tend to have a greater potential of exceeding
4 the noise regulation limits during nighttime hours than during daytime hours. However, to ensure
5 the noise impacts were considered during all hours, PEC conducted ambient noise measurements
6 at noise sensitive receivers over four consecutive, 24-hour periods (July 15 through July 19,
7 2006).

8
9 PEC measured the ambient noise at only the residence nearest the facility site because
10 that residence is located approximately nine tenths of a mile (4940 feet) from the site and there
11 are no other residences within approximately 1.5 miles of the facility. The next nearest residence
12 is close to I-84 and it is expected that the ambient noise from I-84 traffic would be louder than
13 the noise produced by the facility.

14
15 PEC did not determine the source of the ambient noise at the residence nearest the facility
16 site, but, based on the location of the residence relative to I-84, it is expected that the ambient
17 noise during the quietest hours is influenced mainly by traffic on I-84. Noise generated by train
18 pass-bys on the Union Pacific Railroad south of the facility site could influence the hourly L₁₀
19 noise levels during many hours due to the number of trains that pass through the area.

20
21 The purpose of the ambient noise study is to determine if the noise generated by the
22 ethanol production facility will be regulated by the ODEQ “ambient noise degradation rule” in
23 conjunction with the “maximum allowable noise rule” or just by the “maximum allowable noise
24 rule”. In general, PEC’s ambient noise data show that ODEQ’s “ambient noise degradation rule”
25 limits will be more restrictive than the “maximum allowable noise rule” limits during some
26 hours. Therefore, the noise generated by the facility will be regulated by both rules.

27
28 In establishing the noise criterion for the facility, PEC utilized the ambient noise levels
29 measured during the quietest hour of the four-day measurement period. PEC found an hourly L₅₀
30 noise level of 38 dBA during one of the quietest hours of the four-day measurement and an
31 hourly L₁₀ noise level 40.0 dBA.

32
33 Because the noise radiating from the facility will tend to be relatively constant throughout
34 an hour, and because the hourly L₅₀ noise criterion is lower than the hourly L₁₀ noise criterion,
35 the hourly L₅₀ noise criterion would be the more stringent criterion of the two. Therefore, PEC
36 predicted the hourly L₅₀ noise level that would radiate from the facility and compared the results
37 of that prediction to the noise criterion found using the data associated with the quietest hour of
38 the four-day measurement period.

39
40 The major noise sources at the facility would include grain grinders, distillation columns,
41 cooling towers and boiler equipment. Sound level data used in predicting the amount of the
42 facility-generated noise that will reach the nearest residence were derived from measurements of
43 noise radiating from similar equipment used at the Front Range Energy facility in Windsor,
44 Colorado. Both near-field and far-field noise measurements were made to help quantify the noise
45 radiating from the facility at the Front Range Energy facility.

1 According to PEC's noise study report, an initial screening analysis using the Front
2 Range Energy facility measurements indicated the hourly L₅₀ noise level at the nearest residence
3 would be less than 45 dBA. Those results showed, the noise level at the nearest residence would
4 be less than the 48-dBA ambient degradation noise rule limit established by the ambient noise
5 study and well below the maximum allowable noise rule nighttime limit of 50 dBA. However, to
6 further refine the analysis, PEC utilized the Cadna-A noise modeling program and the near-field
7 data obtained at the Front Range Energy facility and predicted the "worst case" hourly L₅₀ noise
8 level expected at the residence. In addition, PEC predicted the "worst case" L₅₀ noise level that
9 could be expected at the entry point to the Columbia River Heritage Trail which is located
10 approximately one mile from the facility even though that site is not considered a noise sensitive
11 receiver under the ODEQ noise regulation. Through the analysis, the applicant predicted the
12 loudest hour L₅₀ noise level at the nearest residence would be 43 dBA and the loudest hour L₅₀
13 noise level at the Columbia River Heritage Trail entry point would be 42 dBA.
14

15 ODOE's noise consultant, Mr. Kerrie Standlee of Daly-Standlee & Associates, Inc.,
16 reviewed the analysis made by PEC and concluded that the worst-case hourly L₅₀ noise level at
17 the nearest residence and at the Columbia Heritage Trail entry point could be approximately 2
18 dB higher than that presented in the noise study report due to the contribution of noise from the
19 distillation columns and the boiler plant. However, Mr. Standlee agreed that, even with the
20 higher predicted noise levels, the noise predicted to radiate from the CEP would be in
21 compliance with the ODEQ noise regulations. Therefore, the data presented in the application by
22 PEC demonstrates the noise generated by the facility would be in compliance with the ODEQ
23 noise regulation's hourly L₅₀ limits at all noise sensitive receivers without the use of any special
24 noise mitigation measures.
25

26 As noted above, the noise radiating from the facility generally would be relatively
27 constant during an hour. As a result, the hourly L₀₁, the hourly L₁₀ and the hourly L₅₀ noise levels
28 radiating from the facility would be about the same. Thus, since the noise radiating from the
29 facility would be in compliance with the hourly L₅₀ criterion, ODOE can find that the hourly L₁₀
30 and L₀₁ noise levels radiating from the facility also would be likely to comply with the ODEQ
31 regulation. Therefore, ODOE the Council finds that PEC would comply with the hourly L₅₀, L₁₀
32 and L₀₁ noise limits at all residences located around the facility.
33

34 Construction of the facility should produce noise levels similar to those found at any
35 large construction project. Construction of the facility would involve the operation of
36 construction equipment, including light and heavy trucks, backhoes, bulldozers, graders, cranes,
37 air compressors, welding machines, and power hand tools. The ODEQ noise standard exempts
38 noise that originates from construction activities.
39

40 **Conclusion**

41 The Council finds that PEC can meet the ODEQ noise standard, OAR
42 340-035-0035(1)(b)(B)(i).
43

44 **2. Wetlands**

45 **The Requirement.** The Council does not have a specific standard for wetlands.
46 However, pursuant to OAR 345-021-0010(1)(j), PEC must submit specific information about the

1 proposed facility’s “significant potential impacts” on wetlands within state jurisdiction under
2 ORS Chapter 196. The Oregon Removal-Fill Law (ORS 196.800 through 990) and regulations
3 adopted by the Oregon Department of State Lands (“DSL”) (OAR 141-085-0005 through 141-
4 085-0660) apply to the proposed facility.

5
6 The construction and future operation of the facility and all related or supporting facilities
7 is subject to the Removal-Fill Law if 50 cubic yards or more of material is removed, filled or
8 altered within any “waters of the state” or if any amount of material is filled or altered in
9 Essential Indigenous Anadromous Salmonid Habitat. Under the Removal-Fill Law, “waters of
10 the state” includes wetlands (defined in OAR 141-085-0010), within the wetland boundary
11 delineated in accordance with OAR 141-090-0005 to 0055, and rivers, intermittent and perennial
12 streams, lakes, ponds and all other bodies of water to the ordinary high water line, or absent
13 readily identifiable field indicators, the bankfull stage. Pursuant to OAR 345-021-0010(1)(j)(D),
14 the Council must determine that all required fill and removal permits of the DSL can be issued to
15 the proposed facility in compliance with ORS 196.800 *et seq.*

17 Discussion

18 The analysis area for wetlands includes the energy facility site and all related or
19 supporting facility sites. David Evans and Associates, Inc., conducted a wetland determination
20 and found no wetlands within the analysis area. The Columbia River is a jurisdictional water of
21 the state and the United States. The jurisdictional boundary extends to the ordinary high water
22 line, which is located at about elevation 268 feet above mean sea level.

23
24 No impacts to wetlands or other waters of the state will occur as a result of the facility.
25 The facility would use existing facilities along the Columbia River to avoid removal and fill
26 activities within the river.

28 Conclusion

29 The Council finds that PEC does not require a DSL removal/fill permit pursuant to DSL
30 regulations (OAR 141-085-0005 through 141-085-0660).

32 3. Public Health and Safety

33 **The Requirement.** Pursuant to ORS 469.310, the Council is charged with ensuring that
34 the “siting, construction and operation of energy facilities shall be accomplished in a manner
35 consistent with protection of the public health and safety***.” State law further provides that
36 “the site certificate shall contain conditions for the protection of the public health and
37 safety***.” ORS 469.401(2).

39 Discussion

40 The site certificate will contain conditions for the protection of the public health and
41 safety with respect to several Council standards. However, certain public health and safety issues
42 that are not otherwise addressed in Council standards warrant special attention: (1) the potential
43 for cooling tower fogging and icing to affect driving conditions on public roads; (2) the
44 certificate holder’s coordination with the Oregon Public Utility Commission (“PUC”) to ensure
45 that the certificate holder designs and builds the electrical transmission line and natural gas

1 pipeline in accordance with the appropriate codes and standards; and (3) pipeline safety
2 monitoring pursuant to OAR 345-027-0020(3)(b). These three issues are discussed below.
3

4 **Cooling Tower Fogging and Icing.** The CEP cooling tower system is about 20 percent
5 of the size of the nearby Coyote Springs system. Most drift would settle out within 200 meters
6 (656 feet) of the cooling tower, and public roads in the vicinity of the CEP are generally at least
7 1,000 feet from the cooling tower. Operation of the facility would not be expected to adversely
8 affect driving conditions on public roads.
9

10 The Council finds that ground level fogging and icing along public roads from the
11 operation of the energy facility is not likely and is not likely to pose a significant threat to public
12 safety.
13

14 **Coordination with the PUC.** The Oregon Public Utility Commission Safety and
15 Reliability Section (“OPUC”) has previously requested that the Council ensure that certificate
16 holders coordinate with OPUC staff on the design and specifications of electrical transmission
17 lines and the natural gas pipelines. The OPUC has explained that others in the past have made
18 inadvertent, but costly, mistakes in the design and specifications of power lines and pipelines that
19 could have easily been corrected early if the developer had consulted with the OPUC staff
20 responsible for the safety codes and standards.
21

22 To promote coordination between PEC and the OPUC in regard to the design and
23 specifications of electrical transmission lines and natural gas pipelines, the Council adopts the
24 following condition in the site certificate to ensure timely consultation:
25

26 **(V.A.1) The certificate holder shall consult with the Oregon Public Utility
27 Commission staff to ensure that its designs and specifications for the
28 electrical transmission line and natural gas pipeline are consistent
29 with applicable codes and standards.**
30

31 **Natural Gas Pipeline Safety.** OAR 345-027-0023 provides conditions that the Council
32 may include in the site certificate, as appropriate.
33

34 To promote safe and reliable design, construction and operation of the proposed natural
35 gas pipeline, the Council adopts the following condition in the site certificate:
36

37 **(V.A.2) With respect to the related or supporting natural gas pipeline, the
38 certificate holder shall design, construct and operate the pipeline in
39 accordance with the requirements of the U.S. Department of
40 Transportation as set forth in Title 49, Code of Federal Regulations,
41 Part 192 and the certificate holder shall develop and implement a
42 program using the best available practical technology to monitor the
43 proposed pipeline to ensure protection of public health and safety.**
44
45
46

1 **Conclusion**

2 The Council finds that, subject to the conditions stated in this final order, the siting,
3 construction and operation of the energy facility is consistent with protection of the public health
4 and safety, pursuant to ORS 469.310.

5
6 **B. REQUIREMENTS THAT ARE NOT UNDER COUNCIL JURISDICTION**

7
8 **1. Federally-Delegated Programs**

9 The Council does not have jurisdiction for determining compliance with those statutes
10 and rules for which the permitting decision has been delegated by the federal government to a
11 state agency other than the Council. However, pursuant to ORS 469.505(1):

12
13 “[a]ny permit application for which the permitting decision has been delegated by
14 the federal government to a state agency other than the Energy Facility Siting
15 Council shall be reviewed, whenever feasible, simultaneously with the Council's
16 review of the site certificate application. Any hearings required on such permit
17 applications shall be consolidated, whenever feasible, with hearings under ORS
18 469.300 to 469.563 and 469.590 to 469.619.”

19
20 The Council concludes that the following programs are not within the Council's
21 jurisdiction because they are federally delegated programs:

- 22
- 23 (1) The Air Contaminant Discharge Permit (“ACDP”) program administered by
24 DEQ, which includes the federally delegated new source review requirements of
25 the Clean Air Act and the Prevention of Significant Deterioration program. This
26 authority is in ORS Chapter 468A; OAR Chapter 340, Divisions 20, 21, 22, 25,
27 and 31.
 - 28
29 (2) The National Pollutant Discharge Elimination System permit program
30 administered by DEQ - Water Quality Division, which regulates and permits
31 storm water runoff and discharges to public waters; and
 - 32
33 (3) The program regulating the design, operation, monitoring and removal of
34 underground storage tanks that contain certain toxic and hazardous materials,
35 including petroleum products, administered by DEQ, under ORS Chapter 466;
36 OAR 340, Division 150.

37
38 **2. Requirements That Do Not Relate to Siting**

39 Under ORS 469.401(4), the Council does not have jurisdiction for determining
40 compliance with state and local government programs that address design-specific construction
41 or operating standards and practices that do not relate to siting. However, the Council may rely
42 on the determinations of compliance and the conditions in the permits issued by these state
43 agencies and local governments in making its determinations as to whether the standards and
44 requirements under the Council's jurisdiction are met.

1 The Council concludes that, for the proposed facility, the following state and local
2 government programs are not within the Council's jurisdiction because the programs address
3 design-specific construction or operating standards and practices not related to siting:
4

- 5 (1) The Oil Spill Contingency and Prevention Plan program, administered by DEQ
6 Water Quality Division under ORS 468B and OAR Chapter 340, Division 47,
7 which regulates the transport, storage, handling, and spill control and prevention
8 of petroleum products;
9
- 10 (2) Regulations of building, structure design and construction practices by the Oregon
11 Building Codes Division under ORS Chapters 447, 455, 460, 476, 479, and 480;
12 OAR Chapter 918, Divisions 225, 290, 301, 302, 400, 440, 460, 750, 770, and
13 780;
14
- 15 (3) Various programs addressing fire protection and fire safety and the storage, use,
16 handling, and emergency response for hazardous materials and community right
17 to know laws for hazardous materials, administered by the Oregon State Fire
18 Marshal's Office, under ORS Chapters 453, 476, and 480; OAR Chapter 837,
19 Divisions 40 and 90;
20
- 21 (4) The program addressing design and safety standards for natural gas pipelines and
22 electric transmission lines administered by the Oregon Public Utilities
23 Commission, Safety Section under ORS Chapter 757; OAR Chapter 860, Division
24 24;
25
- 26 (5) Regulations on the size and weight of truck loads on state and federal highways
27 administered by the Oregon Department of Transportation under ORS Chapter
28 818; OAR Chapter 743, Division 82;
29
- 30 (6) The program regulating the possession, use and transfer of radioactive materials
31 administered by the Oregon State Health Division (OSHD) under ORS Chapter
32 453; OAR Chapter 333, Divisions 100-119;
33
- 34 (7) Regulations of domestic water supply systems regarding potability administered
35 by OSHD under ORS Chapter 448;
36
- 37 (8) Permits required from ODOT to place a structure within, or to cross a state
38 highway right-of-way.
39
- 40 (9) Building permits required and administered by Morrow County.
41
- 42 (10) Federal Aviation Administration Form 7460-1, Notice of Proposed Construction
43 or Alternation, concerning the impact of the height of the structure on navigable
44 airspace.
45

1 **VI. CONDITIONS REQUIRED OR RECOMMENDED BY COUNCIL RULES**

2 The following conditions that the Council includes in the site certificate are specifically
3 required or recommended by OAR 345, Divisions 24, 26 and 27, to address project and site-
4 specific conditions and requirements. These conditions shall apply and should be read together
5 with the additional specific conditions included in Sections D and E of this final order to ensure
6 compliance with the siting standards of OAR 345, Divisions 22, 23 and 24, and to protect the
7 public health and safety.

8
9 In addition to all other conditions stated in this final order, the certificate holder is subject
10 to all conditions and requirements contained in the rules of the Council and local ordinances and
11 state law in effect on the date the site certificate is executed, except: (1) that upon a clear
12 showing of a significant threat to the public health, safety or the environment that requires
13 application of later-adopted laws or rules, the Council may require compliance with such
14 later-adopted laws or rules; and, (2) that the site certificate shall provide for facility compliance
15 with applicable state and federal laws adopted in the future to the extent that such compliance is
16 required under the respective state agency statutes and rules.. ORS 469.401(2).

17
18 ODOE recognizes that many specific tasks related to the design, construction, operation
19 and retirement of the facility would be undertaken by the certificate holder's agents or
20 contractors. However, the certificate holder shall be responsible for compliance with all
21 provisions of the site certificate.

22
23 **A. MANDATORY CONDITIONS IN SITE CERTIFICATES**

24 OAR 345-027-0020 details mandatory conditions that the Council must impose in every
25 site certificate. This final order imposes several of the mandatory conditions within the
26 discussion of specific conditions to which they relate. However, some mandatory conditions are
27 not otherwise addressed in this final order. Therefore, the Council adopts the following
28 conditions in the site certificate.

- 29
30 **(VI.A.1) The Council shall not change the conditions of the site certificate**
31 **except as provided for in OAR 345, Division 27.**
- 32
33 **(VI.A.2) The certificate holder shall submit a legal description of the site to the**
34 **Department of Energy within 90 days after beginning operation of the**
35 **facility. The legal description required by this rule means a**
36 **description of metes and bounds or a description of the site by**
37 **reference to a map and geographic data that clearly and specifically**
38 **identifies the outer boundaries that contain all parts of the facility.**
- 39
40 **(VI.A.3) The certificate holder shall design, construct, operate, and retire the**
41 **facility:**
42 **(a) Substantially as described in the site certificate;**
43 **(b) In compliance with the requirements of ORS Chapter 469,**
44 **applicable Council rules, and applicable state and local laws,**
45 **rules and ordinances in effect at the time the site certificate is**
46 **issued; and**

1 (c) In compliance with all applicable permit requirements of other
2 state agencies.
3

4 **B. OTHER CONDITIONS BY RULE**

5 This section contains recommended conditions based on the Council's rules. In some
6 cases, the rules propose conditions; in other cases ODOE recommended the conditions, based on
7 the Council's rules, to make explicit certain obligations of the certificate holder.
8

9 **Incident Reports.** Pursuant to OAR 345-027-0023(2), the Council adopts the following
10 condition in the site certificate:
11

12 **(VI.B.1) With respect to the related or supporting natural gas pipeline, the**
13 **certificate holder shall submit to the Department copies of all incident**
14 **reports involving the pipeline required under 49 CFR §191.15.**
15

16 **Rights-of-Way.** Pursuant to OAR 345-027-0023(6), the Council adopts the following
17 condition in the site certificate:
18

19 **(VI.B.2) Before beginning operation of the facility, the certificate holder shall**
20 **submit to the Department a legal description of the permanent right-**
21 **of-way where the applicant has built a pipeline or transmission line**
22 **within an approved corridor. The site of the pipeline or transmission**
23 **line subject to the site certificate is the area within the permanent**
24 **right-of-way.**
25

26 **Monitoring Programs.** Pursuant to OAR 345-027-0028, the Council adopts the
27 following condition in the site certificate:
28

29 **(VI.B.3) If the certificate holder becomes aware of a significant environmental**
30 **change or impact attributable to the facility, the certificate holder**
31 **shall, as soon as possible, submit a written report to the Department**
32 **describing the impact on the facility and any affected site certificate**
33 **conditions.**
34

35 **Compliance Plans.** Pursuant to OAR 345-026-0048, the Council adopts the following
36 condition in the site certificate:
37

38 **(VI.B.4) Within 30 days after the effective date of the site certificate, the**
39 **certificate holder shall implement a plan that verifies compliance with**
40 **all site certificate terms and conditions and applicable statutes and**
41 **rules and shall submit a copy of the plan to the Department. The**
42 **certificate holder shall document the compliance plan and maintain it**
43 **for inspection by the Department or the Council.**
44

45 **Reporting.** Pursuant to OAR 345-026-0080, the Council adopts the following conditions
46 in the site certificate:

1
2 **(VI.B.5)** **Within 30 days after the effective date of the site certificate, and every**
3 **six months thereafter during construction of the facility and related or**
4 **supporting facilities, the certificate holder shall submit a semi-annual**
5 **construction progress report to the Department. In each construction**
6 **progress report, the certificate holder shall describe any significant**
7 **changes to major milestones for construction. When the reporting**
8 **date coincides, the certificate holder may include the construction**
9 **progress report within the annual report described in Condition**
10 **(VI.B.6) below.**

11
12 **(VI.B.6)** **By April 30 of each year after beginning construction, the certificate**
13 **holder shall submit an annual report to the Department addressing**
14 **the subjects listed in OAR 345-026-0080(2). The Council Secretary**
15 **and the certificate holder may, by mutual agreement, change the**
16 **reporting date.**

17
18 **(VI.B.7)** **To the extent that information required by OAR 345-026-0080(2) is**
19 **contained in reports the certificate holder submits to other state,**
20 **federal or local agencies, the certificate holder may submit excerpts**
21 **from such other reports to satisfy this condition. The Council reserves**
22 **the right to request full copies of such excerpted reports.**

23
24 **Correspondence with Other State or Federal Agencies.** Pursuant to OAR 345-026-
25 0105, the Council adopts the following condition in the site certificate:

26
27 **(VI.B.8)** **The certificate holder and the Department shall exchange copies of all**
28 **correspondence or summaries of correspondence related to**
29 **compliance with statutes, rules and local ordinances on which the**
30 **Council determined compliance, except for material withheld from**
31 **public disclosure under state or federal law or under Council rules.**
32 **The certificate holder may submit abstracts of reports in place of full**
33 **reports; however, the certificate holder shall provide full copies of**
34 **abstracted reports and any summarized correspondence at the**
35 **request of the Department.**

36
37 **Notification of Incidents.** Pursuant to OAR 345-026-0170, the Council adopts the
38 following condition in the site certificate:

39
40 **(VI.B.9)** **The certificate holder shall notify the Department within 72 hours of**
41 **any occurrence involving the facility if:**
42 **(a) There is an attempt by anyone to interfere with its safe**
43 **operation;**
44 **(b) A natural event such as an earthquake, flood, tsunami or**
45 **tornado, or a human-caused event such as a fire or explosion,**

- 1 affects or threatens to affect the public health and safety or the
2 environment; or,
3 (c) There is any fatal injury at the facility.
4

5 **VII. GENERAL CONDITIONS**

6 The following general conditions are based on the representations by PEC in the ASC that
7 are not otherwise addressed or relate to procedural matters not otherwise addressed in proposed
8 conditions. The Council adopts the following conditions in the site certificate:
9

- 10 (VII.1) The general arrangement of the Columbia Ethanol Project shall be
11 substantially as shown in the ASC.
12
13 (VII.2) The certificate holder shall ensure that related or supporting facilities
14 are constructed in the corridors described in the ASC and in the
15 manner described in the ASC.
16

17 **Successors and Assigns.** Ownership of the site certificate or facility may change over
18 time. The Council adopts the following condition in the site certificate:
19

- 20 (VII.3) Before any transfer of ownership of the facility or ownership of the
21 site certificate holder, the certificate holder shall inform the
22 Department of the proposed new owners. The requirements of OAR
23 345-027-0100 shall apply to any transfer of ownership that requires a
24 transfer of the site certificate.
25

26 **Severability and Construction.** The Council adopts the following condition in the site
27 certificate:
28

- 29 (VII.4) If any provision of this site certificate is declared by a court to be
30 illegal or in conflict with any law, the validity of the remaining terms
31 and conditions shall not be affected, and the rights and obligations of
32 the parties shall be construed and enforced as if the site certificate did
33 not contain the particular provision held to be invalid. In the event of
34 a conflict between the conditions contained in the site certificate and
35 the Council's order, the conditions contained in this site certificate
36 shall control.
37

38 **Governing Law and Forum.** The Council adopts the following conditions in the site
39 certificate:
40

- 41 (VII.5) The laws of the State of Oregon shall govern this site certificate.
42
43 (VII.6) Any litigation or arbitration arising out of this agreement shall be
44 conducted in an appropriate forum in Oregon.
45

1 **VIII. GENERAL CONCLUSION**

2 The Council makes the following findings:

- 3
- 4 A. The Columbia Ethanol Project complies with the requirements of the Oregon
- 5 Energy Facility Siting statutes, ORS 469.300 to 469.520.
- 6 B. The Columbia Ethanol Project complies with the standards adopted by the
- 7 Council pursuant to ORS 469.501; and
- 8 C. The Columbia Ethanol Project complies with all other Oregon statutes and
- 9 administrative rules identified in the project order as applicable to the issuance of
- 10 a site certificate for the proposed facility.

11
12 The Council concludes that PEC meets these requirements and that it should issue a site
13 certificate for the Columbia Ethanol Project.

14
15 **IX. ORDER**

16 Based on the above findings of fact, discussions and conclusions of law, the Council
17 approves the Application for a Site Certificate for the Columbia Ethanol Project and issues the
18 site certificate in the form of the "Site Certificate for the Columbia Ethanol Project." The site
19 certificate for the Columbia Ethanol Project will be attached to this final order and incorporated
20 by reference into this final order.

21
22 Issued on _____, 2007

23
24
25
26 **OREGON ENERGY FACILITY SITING COUNCIL**

27
28
29 By: _____
30 David Ripma
31 Chair, Oregon Energy Facility Siting Council

32
33 **ATTACHMENTS**

34 Attachment A: Habitat Mitigation Plan
35
36

37 **NOTICE OF THE RIGHT TO APPEAL**

38 You have the right to appeal this order to the Oregon Supreme Court pursuant to ORS 469.403.
39 To appeal you must file a petition for judicial review with the Supreme Court within 60 days
40 from the day this order was served on you. If this order was personally delivered to you, the date
41 of service is the date you received this order. If this order was mailed to you, the date of service
42 is the date it was mailed, not the day you received it. If you do not file a petition for judicial
43 review within the 60-day time period, you lose your right to appeal.

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ATTACHMENT A: HABITAT MITIGATION PLAN