FIRST AMENDED
THERMAL POWER PLANT
SITE CERTIFICATE
FOR THE
COYOTE SPRINGS COGENERATION PROJECT
(Incorporating Amendments #1 Through #4)

This site certificate for the Coyote Springs Cogeneration Project (CSCP) is issued and executed in the manner provided by ORS Chapter 469, as amended by 1993 Public Laws ch. 569 (SB 1016), by and between the State of Oregon (State) acting by and through its Energy Facility Siting Council (EFSC) and Portland General Electric Company (PGE), an Oregon corporation.

I. SITE CERTIFICATION

A. To the extent authorized by State law and subject to those warranties and conditions set forth herein, the State approves and authorizes for construction, operation and retirement by PGE of a natural gas-fired combustion turbine energy facility, with oil firing back-up for phase one (as defined in OAR 345-01-010(33)), together with related or supporting facilities in Boardman, Oregon, in the manner described in PGE’s application for site certificate. "Facility", as used in this site certificate, consists of the energy facility and the related or supporting facilities described in PGE’s application for site certificate, except where otherwise stated or where the context clearly indicates otherwise. The findings of facts, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in EFSC’s final order, which by this reference is incorporated herein. Subject to the conditions herein, this certificate binds the State and all counties, cities and political subdivisions in this State as to the approval of the site and the construction, operation and retirement of the facility, as to matters that are included in and governed by this site certificate.

B. Each affected state agency, county, city and political subdivision with authority to issue a permit, license or other approval with respect to matters included in or governed by this site certificate shall, upon submission by PGE of the proper application and payment of the proper fees, issue such permit, license or other approval without hearing or other proceeding, subject only to conditions set forth in the site certificate. Each agency that issues a permit, license or other approval to PGE shall continue to exercise enforcement authority over such permit, license or other approval.
For a permit, license or other approval included in or governed by the site certificate, PGE shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules.

C. Both the State and PGE shall abide by local ordinances and state law and the rules of EFSC in effect on the date the site certificate is executed. In addition, upon a clear showing of a significant threat to the public health, safety or the environment that requires application of later-adopted laws or rules, EFSC may require compliance with such later-adopted laws or rules.

II. DESCRIPTION OF THE FACILITY

A. Description of the Site

1. Power Plant Site

The proposed CSCP plant site consists of approximately 20 acres within the Port of Morrow Industrial Park. The Port of Morrow Industrial Park occupies 5700 acres of land east of the City of Boardman and along the Columbia River.

The plant site is located approximately 1,500 feet due south of the Columbia River and is immediately south of the bank and berm created by the Union Pacific Railroad's east-west mainline. The site's western boundary is Ullman Boulevard. Its southern boundary is along an existing gravel roadway and utility corridor. The site is about 450 feet west of Messner Pond and a small pond created by an ongoing dredging operation lies along the eastern edge of the plant site. The exact location of the plant site is shown by figures C-C2 and C-C3 of the application for site certificate, which are made part of and incorporated into this site certificate by reference.

2. Transmission Line Corridor

The transmission line serving the plant will be approximately 1.5 miles long. The line will occupy land owned by the Port of Morrow and the City of Boardman. The transmission line will run from the south end of the plant site eastward along the existing roadway and utility corridor. For a short distance at its eastern extremity, the line will cross fields that are or have been under cultivation. The exact location of the transmission line corridor is shown in figure C-C2 of the application for site certificate.

B. Description of Facilities

1. Power Plant
The proposed CSCP facilities will consist of several structures: a turbine generator building; heat recovery steam generator (boiler) structures; two 210 feet high exhaust stacks; a water treatment and auxiliary equipment building; auxiliary boilers; an administrative and control building; water treatment chemical tanks; and electrical transformation and substation facility structures.

The CSCP power generation facilities will consist of two natural gas-fired, combined combustion turbine cycle units. Primary power for each unit will be supplied by either a General Electric 7FA gas turbine generator rated at 172.7 MW or a similar model gas turbine. For each unit, the high temperature exhaust from the gas turbine generator will be ducted to a heat recovery steam generator or boiler to generate steam. This steam will be used to drive a steam turbine generator with an electrical generation capacity of 79.3 MW. Steam used in power generation will be cooled and condensed back to water by a condenser or heat exchanger using the cooling tower method.

Electrical transformation and substation facilities will be constructed adjacent to the power plant at the south end of the site.

The proposed CSCP power plant (both units) will use up to 27,400,000 million British thermal units of natural gas fuel per year. The power plant shall be supplied by a natural gas pipeline that will run approximately 15 miles between the site and Ione, Oregon. The supply pipeline will interconnect with an interstate natural gas transmission line and will be owned and operated by another company. The supply pipeline will be permitted through the Federal Energy Regulatory Commission and is not considered to be a related facility under the jurisdiction and siting review authority of the Energy Facility Siting Council.

2. Electrical Transmission Line
Project related facilities will include a double circuit looped 500 kilovolt transmission line. The 1.5 mile line will connect the power plant with the Bonneville Power Administration transmission system.

In the event of a conflict between the descriptions of the facility in this site certificate, EFSC's final order, ODOE's final staff report on PGE's application for site certificate, or PGE's application for site certificate, the following priority of construction shall apply to determine which document controls: first, PGE's application for site certificate; second, this site certificate; third, EFSC's final order; and fourth, ODOE's final staff report.

III. WARRANTIES
ORS 469.401(3) requires that:
"The site certificate shall contain the warranties of the applicant as to the ability of the applicant to comply with standards of financial ability and to construct and operate the energy facility, the applicant's provisions for protection of the public health and safety and for time of completion of construction."

The following warranties are necessary to meet the above statutory requirements and to ensure and facilitate compliance with and enforcement of EFSC standards and the policy directives of ORS chapter 469:

(1) Applicant represents and warrants that it has the present capabilities and resources to construct, operate and retire the CSCP, including the ability to finance and pay for the CSCP, substantially as described in the Site Certificate and in the order approving the Site Certificate, as they may be amended from time to time, and with the terms and conditions of the Site Certificate.

(2) Applicant represents and warrants that applicant can and will comply with all applicable state, federal and local laws, regulations and ordinances and with the conditions of the site certificate.

(3) Applicant represents and warrants that it will undertake and complete construction of Phase I and Phase II of the CSCP according to the conditions of the construction commencement and completion dates at V.A.2.

(4) Applicant warrants that it will take those actions, necessary to ensure that any third party contracting with Applicant during construction, operation or retirement of this facility and related and supporting facilities shall abide by the terms of this site certificate.

(5) Applicant warrants that it shall take all reasonable steps necessary to ensure the protection of the public health and safety during the construction, operation and retirement of the CSCP and related facilities.

IV. MANDATORY CONDITIONS

The following mandatory conditions are either specifically required by OAR 345-27-020 or are appropriate under OAR 345-27-020(4)(o) to address project and site-specific conditions and requirements. These mandatory conditions shall apply in addition to, and should be read together with, the specific additional conditions provided in this site certificate to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22, 23 and 24.

(1) Applicant shall comply with all applicable laws, regulations and ordinances of state, federal and local authorities, including all conditions contained in any permits, licenses and approvals issued by such authorities, and applicant shall comply with the conditions of the site certificate. The duty of applicant to comply applies notwithstanding a failure or oversight in the proposed order or site certificate to identify all applicable laws, regulations
and ordinances. Applicant shall design, construct, operate and retire the facility in accordance with the requirements of the Oregon Energy Facility Siting Statute, ORS 469.300 et seq., and EFSC rules applicable to the facility. 

(2) Applicant shall design, permit, construct, operate and retire the CSCP substantially as described in the Site Certificate, as it may be amended from time to time. 

(3) At construction completion and no later than 90 days following the beginning of commercial operation, applicant shall submit to EFSC a written report certified by an Oregon registered structural engineer documenting the following: (a) facility construction consistent with the project description and operating statement of the ASC, as modified or amended by the site certificate; (b) fulfillment of and compliance with all design and construction-related conditions of the site certificate, including all applicable mitigation measures; and (c) compliance with or statement as to the ability to comply with all applicable state, federal and local permits, licenses and approvals issued for the project, including, but not limited to, compliance with Oregon Building Codes Agency (BCA) building permits and Oregon Public Utility Commission (OPUC)—Safety Section design requirements. 

(4) Applicant shall submit annual compliance status reports to EFSC providing a statement and documentation of applicant's compliance with each and every condition of the site certificate. 

(5)(a) Prior to construction, the site certificate holder shall submit certification that at least 80 percent of the capacity from the proposed CSCP shall be used by an energy supplier in the Pacific Northwest Region as defined in 16 U.S.C. 839a(14). The capacity and energy of the CSCP shall be used by the site certificate holder for the benefit of its customers in its Oregon service territory. Except as required for financing purposes, the site certificate holder shall not sell or lease the facility and shall not contract for firm energy or firm capacity for the output of the facility for a term exceeding five years. 

(b) In the event the site certificate holder does not complete construction of phase two within five years from the execution of the site certificate, prior to EFSC granting the site certificate holder an extension of the construction completion date for phase two, the site certificate holder shall demonstrate compliance with ORS 469.503(2) in lieu of compliance with Condition IV(5)(a). 

(6) Applicant shall not commence construction on any part of the facility and related or supporting facilities (including clearing of rights-of-way, but excepting survey and geotechnical investigations), until applicant has filed with EFSC documentation of ownership, control or access to the entire plant site and the entire transmission corridor. 

(7) Applicant shall, to the extent practicable, restore vegetation and landscape portions of the site disturbed by construction in a manner which is compatible with its surroundings; and, upon completion of construction, dispose of all temporary structures not required for
future use and all used timber, brush, refuse, or flammable material resulting from the clearing of lands or from construction of the facility.

(8) Applicant shall notify ODOE, Oregon Department of Geology and Mineral Industries (DOGAMI) and the Oregon Department of Water Resources (DWR) in advance of further geotechnical investigations and trenching on the project site to allow the opportunity for agency representatives to inspect the work.

(9) Applicant shall promptly notify ODOE, DOGAMI and DWR if further geotechnical investigations, trenching or construction activities reveal conditions that were not considered in or that differ from the conditions assumed in the agreed-upon seismic hazard classification, or if shear zones, artesian aquifers, deformations or clastic dikes are found near or beneath the project site. EFSC may require additional and/or higher design requirements as necessary to address site conditions not previously considered.

(10) Applicant shall prevent any condition from developing on the site that would preclude restoring the site to a useful condition.

(11) At least 5 years prior to facility retirement, applicant shall submit a retirement plan to EFSC subject to review and approval by EFSC. The plan shall describe how the site will be restored adequately to a useful condition, including options for post-retirement land use, information on how impacts to fish, wildlife and the environment will be minimized during the retirement process and measures to protect the public against risk or danger resulting from post-retirement site conditions. The certificate holder shall restore the site to a useful condition following retirement.

(12) This certificate shall expire at the end of the useful life of the energy facility. Application for termination of the site certificate shall be made in accordance with the provisions of OAR 345-27-110.

(13) The conditions in this site certificate may not be changed during the term of the site certificate except as provided in OAR Chapter 345, Division 27.

(14) If a visitor information facility is provided at the site, information regarding conservation of energy and the means by which it may be accomplished shall be included with any energy facility information provided.

V. CONDITIONS ISSUED PURSUANT TO EFSC STANDARDS

1 Although conditions in this part V of the site certificate are listed under headings citing specific standards, the condition may relate to other standards as discussed in EFSC’s final order. Any application of these conditions should take into account discussions under the various other standards.
A. Need for the facility

1. Exemption: OAR 345-23-010

Applicant shall, as part of the post-construction completion compliance status certification report required by Mandatory Condition 3, provide a capacity and heat rate performance test report to document the ability of the facility to meet the output and fuel efficiency measures as represented in the ASC.

2. Construction commencement and completion dates

(1) Applicant shall begin construction of phase one of the proposed facility within one year after the site certificate is executed. This one-year time period shall be tolled during any appeal that is taken of the Energy Facility Siting Council (EFSC) Order. Notwithstanding the tolling of the one-year time period for commencement of construction, Applicant shall complete construction of phase one by September 16, 1998, and phase two shall be completed by September 16, 2001.

(2) Within one year of execution of the site certificate Applicant must affirm, by written notice to EFSC its intent to construct phase two. This notice to EFSC shall include copies of correspondence to a vendor requesting commencement of bona fide negotiations to purchase the gas turbine. This one-year time period shall be tolled during any appeal taken of EFSC’s Order. Such affirmation is required in order for Applicant to maintain a valid site certificate as to phase two.

(3) Applicant may request an extension of the five-year construction completion deadline for phase two. If such a request is made during the first year after the site certificate is executed (which period shall be tolled during any appeal taken of EFSC’s order), and Applicant shows that the need for the extension is caused by acts of God or force majeure events, Applicant will not be required to demonstrate that the facility meets EFSC’s needs standard. EFSC anticipates such a request will be considered a minor amendment under OAR 345-27-080.

(4) If the site certificate holder requests an extension of the construction completion deadline for phase two and the site certificate holder does not meet the requirements of Condition V.A.2(3) above, the site certificate holder shall demonstrate that the facility meets the requirements of ORS 469.503(2) in order for EFSC to approve extending the deadline.

(5) In no event will EFSC grant an extension of the construction completion deadline for phase two beyond September 16, 2001. The construction completion deadline for phase two, as specified in the applicant’s warranty, will not be tolled for reason of appeal of the EFSC’s Order.
3. Carbon Dioxide Emissions Standard for Phase Two: ORS 469.503(2)
   (1) Prior to commencement of construction of phase two on an extended
   construction completion schedule pursuant to Condition V.A.2(4), the site
   certificate holder shall submit to the State of Oregon through the Council a
   bond, letter of credit or escrow account executed by the site certificate
   holder in the amount of the monetary path payment requirement (in 1998
   dollars) as determined by the calculations set forth in Condition V.A.3(4)
   and based on the estimated heat rate and capacity certified pursuant to
   Condition V.A.3.(5) below and as adjusted in accordance with the terms of
   this site certificate pursuant to Condition V.A.3(4)(d). For the purposes of
   this site certificate, the "monetary path payment requirement" means the
   offset funds determined pursuant to ORS 469.503(2)(c) and the selection
   and contracting funds determined pursuant to ORS 469.503(2)(d)(A)(ii)
   that the site certificate holder must disburse to the Oregon Climate Trust,
   as the qualified organization, pursuant to ORS 469.403(2)(d)(A). The
   calculation of 1998 dollars shall be made using the index set forth below
   in sub-section (c).

   (a) In the event that the Council approves a new site certificate holder, the
   Council shall approve the bond, letter of credit or escrow account from the
   new site certificate holder(s) unless the Council finds that the proposed
   bond, letter of credit or escrow account does not provide comparable
   security to the bond, letter of credit or escrow account of the current site
   certificate holder. Such approval of a new bond, letter of credit or escrow
   account will not require a site certificate amendment. The bond, letter of
   credit or escrow account shall remain in effect until such time as the site
   certificate holder has disbursed the full amount of the monetary path
   payment requirement to the Oregon Climate Trust as provided in ORS
   469.503(2)(d)(A).

   (b) If the site certificate holder has provided a bond, letter of credit or
   escrow account prior to commencing construction and if calculations
   pursuant to Condition V.A.3.(6) demonstrate that the site certificate holder
   must increase its monetary path payments, the site certificate holder shall
   increase the bond, letter of credit or escrow account sufficiently to meet
   the adjusted monetary path payment requirement within the time required
   by Condition V.A.3.(4)(d). The site certificate holder may reduce the
   amount of the bond, letter of credit or escrow account commensurate with
   payments it makes to the Oregon Climate Trust.

   (c) The calculation of 1998 dollars shall be made using the US Gross
   Domestic Product Deflator for Total Non-Residential Fixed Investment, as
   published by the US Department of Commerce, Bureau of Economic
   Analysis, or any successor agency ("the index"). The amount of the bond,
   letter of credit or escrow account shall increase annually by the percentage
increase in the index and shall be pro-rated within the year to the date of
disbursement to the Oregon Climate Trust. If at any time the index is no
longer published, the Council shall select a comparable calculation of
1998 dollars. The bond, letter of credit or escrow account shall not be
subject to revocation prior to disbursement of the full monetary path
payment requirement, including any adjusted monetary path payment
requirement. The terms of the bond, letter of credit or escrow account and
identity of the issuer shall be subject to approval by the Council, which
approval shall not be unreasonably withheld.

(d) If the site certificate holder establishes an escrow account for the
monetary path payment requirement, the portion of any interest accruing
in the escrow account up to the time of disbursement to the Oregon
Climate Trust that is equivalent to the 1998 dollar index adjustment
(described in sub-section (c)) shall be for the benefit of the Oregon
Climate Trust and shall be disbursed to the Oregon Climate Trust for use
as specified in ORS 469.503(2)(d)(A). Any remaining interest that
exceeds the 1998 dollar adjustment at the time of disbursement of funds to
the Oregon Climate Trust shall be disbursed to the site certificate holder
on its request.

(2) The site certificate holder shall disburse to the Oregon Climate Trust offset
funds and contracting and selection funds as requested by the Oregon
Climate Trust up to the monetary path payment requirement as determined
by the calculations set forth in Condition V.A.3.(4) and based on the
estimated heat rate and capacity certified pursuant to Condition V.A.3.(5)
below (in 1998 dollars) and as adjusted in accordance with the terms of
this site certificate pursuant to Condition V.A.3.(4)(d). Disbursements
shall be made in response to requests from the Oregon Climate Trust in
accordance with the requirements of ORS 469.503(2)(d)(A).

(3) Notwithstanding anything in this amended site certificate to the contrary,
the site certificate holder shall have no obligation with regard to offsets,
the offset funds and the selection and contracting funds other than to make
available to the Oregon Climate Trust the total amount required under this
site certificate, nor shall any nonperformance, negligence or misconduct
on the part of the Oregon Climate Trust be a basis for revocation of this
site certificate or any other enforcement action by the Council with respect
to the site certificate holder.

(4) The site certificate holder shall use the following methodology to calculate
the amount of the monetary path payment requirement that it must make
available to the qualified organization pursuant to ORS 469.503(2)(d)(A).
All calculations shall be made assuming that no steam is supplied for
cogeneration. The site certificate holder shall use the contracted design
parameters for capacity and heat rate for phase two that it reports pursuant to Condition V.A.3.(5) to calculate the estimated monetary path payment requirement. The site certificate holder shall use the Year One Capacity and Year One Heat Rate that it reports for phase two pursuant to Condition V.A.3.(6) to calculate whether it owes additional monetary path payments.

(a) To calculate the offset funds payment requirement as provided in ORS 469.503(2)(c), the site certificate holder shall use the following methodology:

(A) The site certificate holder shall multiply the nominal power of phase two (kW) while operating on natural gas by 8,760 hours. It shall then multiply that product by 30 years to determine the total net plant output (kWh) of phase two. It shall multiply the total net plant output of phase two by the heat rate (Btu/kWh) while operating on natural gas and by the carbon dioxide emission factor for natural gas (0.000117 lb. CO₂/Btu) to determine the total CO₂ emissions (lb.) from operating phase two. The site certificate holder shall calculate the CO₂ emissions rate (lb. CO₂/kWh) for phase two by dividing the total CO₂ emissions by the total net plant output for phase two;

(B) The site certificate holder shall subtract the carbon dioxide standard of 0.7 lb. CO₂/kWh from the CO₂ emissions rate for phase two to determine its excess CO₂ emissions rate (lb. CO₂/kWh);

(C) The site certificate holder shall multiply the total net plant output (kWh) for phase two by phase two’s excess CO₂ emissions rate (lb. CO₂/kWh). It shall then divide that product by 2,000 pounds to determine the total tons of CO₂ emissions the site certificate holder must mitigate (tons); then,

(D) The site certificate holder shall multiply the total tons of CO₂ emissions it must mitigate by $0.57 per ton of CO₂ to determine the sub-total for the offset funds.

(b) To calculate the selection and contracting funds sub-total as provided in ORS 469.503(2)(d)(A)(ii), the site certificate holder shall subtract $500,000 from the offset funds subtotal; then multiply the remaining amount by 4.286 percent; then add $50,000 to that product.

(c) To determine its monetary path payment requirement, the site certificate holder shall add the sub-total for the offset funds and the sub-total for the selection and contracting funds.
(d) When the site certificate holder submits the Year One Test report required in Condition V.A.3.(6), it shall increase its bond, letter of credit or escrow account for the monetary path payment requirement if the calculation using reported data shows that the adjusted monetary path payment requirement exceeds the monetary path payment requirement for which the site certificate holder had provided a bond, letter of credit or escrow account prior to commencing construction, pursuant to Condition V.A.3.(1).

(A) The site certificate holder shall make the appropriate calculations and increase its bond, letter of credit or escrow account, if necessary, within 30 days of filing its Year One Test report with the Council.

(B) In no case shall the site certificate holder diminish the bond, letter of credit or escrow account it provided prior to commencing construction or receive a refund from the qualified organization based on the calculations made using the Year One Capacity and the Year One Heat Rate.

(5) Prior to commencement of construction of phase two on an extended construction completion schedule pursuant to Condition V.A.2(4), the site certificate holder shall notify the Council in writing of its final selection of a gas turbine vendor and shall submit written design information to the Council sufficient to verify phase two’s designed new and clean heat rate and its nominal electric generating capacity at average annual site conditions. The report shall also include an affidavit or other evidence that the site certificate holder or a vendor has guaranteed the heat rate.

(6) Within two months of completion of the first year of commercial operation of phase two built on an extended construction completion schedule pursuant to Condition V.A.2(4), the site certificate holder shall provide to the Council pursuant to ORS 469.503(2)(e)(G) a test report (Year One Test) of the actual heat rate (Year One Heat Rate) and nominal generating capacity (Year One Capacity) for phase two, without degradation, assuming no steam is supplied for cogeneration, as determined by a 100-hour test at full power completed during the first 12 months of commercial operation, with the results adjusted for the average annual site condition for temperature, barometric pressure and relative humidity and use of alternative fuels, and using a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel.

(7) The combustion turbine for phase two shall be fueled solely with natural gas or with synthetic gas with a carbon content per million Btu no greater than natural gas.
(8) If the site certificate holder operates phase two as a cogeneration facility, the site certificate holder shall not use steam from phase two to replace steam generated by a biomass fuel at an off-site industrial facility.

B. Standards relating to the applicant

Organizational, managerial and technical expertise standard: OAR 345-22-010

1. Applicant Qualification and Capability:

Applicant shall contractually require the EPC contractor and all independent contractors and subcontractors involved in the construction and operation of the proposed facilities to comply with all applicable laws and regulations and with the terms and conditions of the site certificate.

2. Third-Party Services and Permits

(i) Water supply

(1) Applicant’s water use shall not exceed the flow rates and maximum quantities specified in the ASC for the proposed CSRP nor shall the withdrawal rates exceed the limits imposed by the water right permits for the sources supplying the water.

(2) Applicant shall install and operate a continuous, recording flow meter on the facility’s process water intake line and maintain records of total process water use on a monthly and annual basis.

(ii) Process wastewater disposal

(1) Within six months of the date the site certificate is executed, the applicant shall demonstrate that the Port of Morrow has received DEQ approval to dispose of the CSRP’s process wastewater, or commit to install an on-site, zero-discharge water treatment system.

(2) If applicant uses the Port of Morrow’s industrial wastewater disposal system, applicant shall not discharge into the Port’s system at flow rates and quantities or in excess of water quality limitations or discharge any materials that would violate any applicable laws and regulations or the conditions of the Port of Morrow’s WPCF permit.

(iii) Sanitary wastewater disposal
Applicant shall not discharge any materials into the City of Boardman sewage treatment system that would violate any applicable laws and regulations or the conditions of the City of Boardman’s WPCF permit.

C. Standards relating to the site and structure

1. Structural standard: OAR 345-22-020

   a. Seismic hazards

      (1) Applicant shall design and construct the proposed facility in accordance with and in compliance with the laws and regulations administered by BCA.

      (2) Before submitting building permit applications to BCA, applicant shall re-evaluate peak ground acceleration for the site based on applying an amplification factor determined from its site-specific studies. The applicant shall report the results of its reevaluation to ODOE, DOGAMI and BCA. The applicant shall design and construct the facility to address any estimate of peak ground acceleration exceeding that covered by seismic zone 2B.

   b. Adverse soil impacts

      During construction, the applicant and its subcontractors shall make reasonable efforts to keep soil disturbances to a minimum.

2. Land use standard

   Applicant shall comply with the conditions in the variance for the CSCP transmission line granted to applicant by Morrow County on October 25, 1993.

D. Standards relating to the impacts of construction, operation and retirement

1. Fish and Wildlife Standard: OAR 345-22-060

   (1) Applicant shall implement the vegetation, fish and wildlife mitigation measures as contained in its ASC (Exhibits N, P and R), and the following mitigation conditions of ODFW:

      a. The applicant shall design and construct the electrical transmission towers and lines in a manner appropriate for the protection of raptors.

      b. Applicant shall reseed areas of disturbed soil using the seed composition and planting procedure described in ASC, Exhibit N.
Applicant shall reseed areas where Russian olive trees or tall vegetation is removed using a mix of woody shrubs and perennial grasses to be jointly determined by ODFW and PGE.

c. Applicant shall plant trees between the west side of Messner Pond and the facility site, as described in the ASC, to enhance wildlife habitat around Messner Pond and to provide a visual and auditory buffer between the facility site and Messner Pond. The applicant shall maintain trees in healthy condition and replace trees that die or become unhealthy.

d. The following activities shall be prohibited within 100 feet of the wetland associated with Messner Pond: storage of hazardous materials, chemicals, fuels and lubricating oils; refueling of construction equipment; and performing concrete coating activities.

e. Applicant shall insure that notification is provided to the ODFW representative in charge of the Heppner District Office at least one week prior to the start of construction for the power plant and transmission lines.

f. Applicant shall leave a 50 foot buffer between the edge of construction and the high water line of the wetland area associated with Messner Pond.

g. Applicant shall erect a temporary fence and signs to protect the bank swallow nesting colony from disturbance during construction.

(2) Applicant shall, as part of the post-construction completion compliance status certification report required by Mandatory Condition No. 3, provide documentation of the following: a) cooling tower drift rate, including manufacturer specifications and guaranty, and actual field testing of the CSCP cooling tower drift rate; and b) water analysis of the cooling tower circulation water representative of identified actual source water and cycles of concentration.

(3) Applicant shall install, operate and maintain a continuous monitoring system to measure and record the total dissolved solids (TDS) concentration of the cooling tower/condenser circulating water.

(4) Applicant’s cooling tower drift factor shall not exceed 0.002 percent of the circulation rate. Applicant shall not allow the total dissolved solids concentration in the cooling tower/condenser system to exceed 2,084 parts per million.

(5) Applicant shall fully comply with the terms and conditions of the December 10, 1993 Ecological Monitoring Program, as revised on January 5, 1994, and shall take such actions as deemed appropriate by ODOE, in consultation with ODFW, to fully mitigate adverse impacts to the Messner
Pond area, including but not limited to reducing the cycles of concentration in the cooling tower system.

2. Scenic and Aesthetic Standard: OAR 345-22-080

Applicant shall implement and fulfill the mitigation proposals as contained in the ASC, including site perimeter landscaping with appropriate vegetation; painting building structures and the exhaust stacks in neutral shades; minimizing exterior lighting and directing lights into the facility site; and establishing landscape screening along the perimeter of the proposed power plant site.

3. Historic, Cultural, and Archaeological Standard: OAR 345-22-090

(1) If the area in which artifacts were found is to be disturbed by construction or operation, the applicant shall obtain the recommendation of SHPO as to any clearance requirements for the affected area and shall comply with all applicable regulations and laws relating to historic, cultural, and archaeological resources.

(2) If historic, cultural or archaeological resources are found during project construction or construction-related activities, the applicant shall stop all work in the vicinity of the find and consult with the SHPO. The applicant shall not restart work in the area of the find until SHPO has concurred that the applicant has identified actions to minimize or avoid further impact.

(3) Applicant shall comply with all applicable state laws regarding Indian graves, removal of historic materials and archaeological objects and sites.

4. Socio-Economic Impact Standard: OAR 345-22-110

a. Solid waste

Applicant shall, at a minimum, test its sludge waste and maintain records as required by DEQ and the landfill operator pursuant to applicable permits and licenses, including testing under the Toxicity Characteristic Leaching Procedure (TCLP), or equivalent per 40 CFR part 262.11, Hazardous Waste Determination.

b. Emergency services

The applicant shall reimburse the Boardman Fire Department for reasonable costs for new training and equipment which is specifically needed, as determined by the State Fire Marshall, to respond to an emergency at the CSCP.
c. Roadways

Applicant shall mitigate all fogging and icing impacts caused by CSPC to off-site roadways that create hazardous traffic conditions. Mitigation measures, if needed, shall be undertaken and implemented in consultation with the Port of Morrow and other responsible local agencies, and may include, but are not limited to: hazard warning signs, lighting and sanding.

5. Waste Minimization Standard: OAR 345-22-120

a. Solid wastes

Applicant shall minimize and recycle solid wastes generated during construction and operation whenever practical, including:

a) packing materials, wood, piping and steel scrap during construction;

b) spent ion exchange resins used for demineralizing water during plant operation;

c) waste from the facility's office, including paper products, aluminum cans, glass and plastics.

b. Industrial wastewater

If commencement of construction of either phase of the proposed CSPC is delayed beyond two years from the date the site certificate is executed, applicant shall submit, prior to commencement of construction of that phase, a revised cooling system evaluation that addresses the then available technologies, their costs, savings and benefits.

6. Retirement Standard: OAR 345-22-130

Upon retirement of the facility, the applicant shall restore the CSPC site to a useful condition.

E. Noise

(1) Applicant shall comply with the noise standards and limits contained in OAR 340-35-035 (1)(b)(B).

(2) Applicant shall, by facility design and the installation of silencers and/or other devices, limit noise emissions from the facility's pressure-relief safety valves such that sound levels attributable to their use do not exceed the limits contained in OAR 340-35-035 (1)(b)(B).
(3) Applicant shall retain a registered acoustical consultant to conduct noise monitoring to determine compliance with conditions (1) and (2) above and provide a report of that monitoring to ODOE within 120 days after beginning commercial operation of the proposed facility.

F. Public health and safety

To the extent possible, consistent with BPA’s specifications, applicant shall design and construct the line in accordance with the requirements of OAR 345-24-090:

(a) The transmission line shall be designed so that alternating current electrical fields shall not exceed 9 kv per meter above the ground surface in areas accessible to the public;

(b) The transmission line shall be designed so that induced currents resulting from the transmission line and related facilities will be as low as reasonably achievable. The applicant agrees to a program which shall provide reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity shall be grounded through the life of the line; and

(c) The transmission line shall be designed and constructed, and operated in a manner consistent with the 1993 edition of National Electrical Safety Code (American National Standards Institute, Section C2, 1993 edition).

VI. MONITORING CONDITIONS

OAR Chapter 345, Division 26 contains monitoring and reporting requirements for thermal power plants with site certificates. The following monitoring and reporting requirements are intended to achieve the purpose, expressed in OAR 345-26-005, "...to assure that the construction and operation of thermal power plants is accomplished in a manner consistent with the protection of the public health, safety and welfare, and the protection of the environment."

As provided in OAR 345-26-015(3), in the event that any of the specific monitoring or reporting conditions contained in the site certificate conflict or are inconsistent with the rules and requirements of OAR Chapter 345, Division 26, the site certificate conditions shall be deemed to control.

(1) The applicant shall submit to EFSC a report at least quarterly from the start of construction to commercial operation of the second unit. The report shall include, but is not limited to:

(a) an assessment of the construction schedule for each unit, including any changes to major milestones that affect the critical path for construction;
(b) an assessment of the then known costs and costs projections for the CSCP in relation to the applicant's then current least cost plan;

(c) an assessment of the construction staffing, including status of staffing and any staffing problems that may affect construction schedule;

(d) any significant work stoppage;

(e) any noncompliance with the conditions of the site certificate, including the background of the causes of the noncompliance, the mitigation or correction of the noncompliance and the impact of the noncompliance on the project schedule or financing;

(f) any noncompliance with the conditions of permits issued by any other federal, state or local authority; including the background of the causes of the noncompliance, the mitigation or correction of the noncompliance; and the impact of the noncompliance on the project schedule or financing;

(g) any noncompliance with the conditions of permits issued to third parties that are known to the applicant and that are significant and relevant to the construction or operation of the facility, such as Water Rights Permits or Water Pollution Control Facility Permits; including the background of the causes of the noncompliance, the mitigation or correction of the noncompliance, and the impact of the violation on the project schedule or financing;

(h) copies of all correspondence and reports related to facility construction submitted to a federal, state, or local authority, except material withheld from public disclosure under federal or state law. Abstracts of reports may be submitted in place of full reports. However, full copies of abstracted reports must be provided at the request of ODOE or EFSC;

(i) any other information that EFSC requests that is considered necessary to monitor and evaluate the applicant's compliance with the terms and conditions of the site certificate.

(2) The applicant shall submit to the EFSC an annual report from the start of commercial operation of the first unit through retirement of the last operating unit. The annual report shall include, but is not limited to:

(a) results of performance tests, including project efficiency testing, summaries of fuel use, average volume and mass of steam supplied to any cogeneration host and the estimated fuel used to generate any host steam load;

(b) in the first report submitted after commencement of commercial operation, unit heat rate in Btu per kilowatt hour produced, corrected to ISO conditions and
accounting for steam delivered to any steam host, and also facility capacity corrected to 52.8°F, 55% relative humidity, standard air pressure adjusted for elevation, no steam to process, natural gas fuel, and normal steam turbine exhaust pressure, net of plant auxiliary loads;

(c) the power production by the facility by unit, by month, including peak capacity, average capacity, gross and net kilowatt hour production, availability, reasons and durations of planned and unplanned outages, plans to improve capacity and availability and to correct recurring problems;

(d) an assessment of the operations staffing, including status of staffing and any staffing problems that may affect facility operation;

(e) any noncompliance with the conditions of the site certificate, including the background of the causes of the noncompliance, the mitigation or correction of the noncompliance and the impact of the noncompliance on the project operation or financing;

(f) any noncompliance with the conditions of permits issued by any other federal, state or local authority; including the background of the causes of the noncompliance, the mitigation or correction of the noncompliance, and the impact of the noncompliance on the project operation or financing;

(g) any noncompliance with the conditions of permits issued to third parties that are known to the applicant and that are significant and relevant for the operation of the facility, such as Water Right Permits or Water Pollution Control Facility Permits; including the background of the causes of the noncompliance the mitigation or correction of the noncompliance, and the impact of the noncompliance on the project operation or financing;

(h) copies of all correspondence related to facility operation which was submitted to a federal, state, or local authority, except material withheld from public disclosure under federal or state law. Abstracts of reports may be submitted in place of full reports. However, full copies of abstracted reports must be provided at the request of ODOE or EFSC;

(i) an assessment of the project's cost of operation in relation to the applicant's then-current least cost plan;

(j) any other information that EFSC requests that is considered necessary to monitor and evaluate the applicant's compliance with the terms and conditions of the site certificate.

(3) Information To Be Reported Promptly
(a) The applicant shall report to ODOE within 72 hours of receiving knowledge of noncompliance with the conditions of the site certificate arising from the acts or omissions of applicant, its contractors, subcontractors or agents;

(b) The applicant shall report to ODOE within 24 hours of receiving knowledge of any condition arising from the construction and operation of the facility that endangers public health and safety.

VII. AMENDMENT OF SITE CERTIFICATION AGREEMENT

PGE and EFSC recognize that, because of the length of time that may pass between the date on which this Agreement is executed and the date on which construction will commence, and that will pass between the time construction is commenced and the energy facility is retired, it may be necessary to amend this Agreement.

Amendments shall be made in accordance with OAR Chapter 345, Division 27 or EFSC rules applicable and in effect at the time the amendment is sought.²

VIII. SUCCESSORS AND ASSIGNS

No site certificate, or any portion thereof, may be transferred, assigned, or disposed of in any other manner, directly or indirectly, except in compliance with OAR 345-27-100 or EFSC rules applicable and in effect at the time such action is proposed.

IX. SEVERABILITY AND CONSTRUCTION

²The Order Approving Amendment No. 1 included the following:

Notwithstanding the latter statement in Section VII, OAR 345-27-011 states that the Council's current rules in Division 27 do not apply to facilities for which a site certificate was executed before November 30, 1994, unless the site certificate is amended to include the applicability of the rules in this division. This amendment would apply the current rules at OAR 345-27-050 through OAR 345-27-080, and OAR 345-27-095 to this site certificate.

PGE's request is consistent with the terms of the site certificate. It would be consistent with the other recommended amendments for the Council to amend the site certificate to incorporate specifically the applicability of OAR 345-27-050 through OAR 345-27-080 and OAR 345-27-095 to clarify that the Council will process subsequent requests for amendments or petitions by PGE under the Council's most current procedural rules.

OE concludes that the application of these current rules would not create a threat to public health and safety or to the environment. OE supports this amendment. The Council agrees and finds that this amendment is appropriate.
If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

In the event of a conflict between the warranties and conditions contained in this site certificate and EFSC's final order, the warranties and conditions contained in this site certificate shall control.

X. GOVERNING LAW AND FORUM
   A. This agreement shall be governed by the laws of the State of Oregon.
   B. Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon.

XI. CONDITIONS ISSUED PURSUANT TO APPLICANT REPRESENTATIONS
References to page numbers and exhibits are to the Application for Site Certificate for CSCP.

1. PGE shall notify the Council of any modifications to the ownership of the controlling interest of PGE.

2. PGE shall notify the Council of any change of the identity of the operator of the facility.

3. NOx emissions shall be controlled to 25 ppm on natural gas. (p. B-3)

4. Each heat recovery steam generator shall be provided with an ammonia injection system and selective catalytic reduction system to further reduce the NOx emissions at the stack outlet. (p. B-4)

5. All chemicals listed in section 4.7 of Exhibit B shall be stored in approved storage containers consistent with industry standards for the particular chemical. All chemical storage systems shall have provisions for secondary containment to prevent uncontrolled spills to the environment. (p. B-8)

6. PGE shall implement fire protection and life safety design features as described at Section 4.10 of Exhibit B. (pp. B-9 and B-10)

7. The low NOx burners on the auxiliary boiler shall control emissions to a maximum of 40 ppm at the stack outlet. (p. B-12)

8. All equipment drain wastewater shall be processed in an oil/water separator designed to remove oil contamination down to 10 ppm in the discharge water. Storm water collected
within the fuel tank area shall be ... processed through the facility oil/water separator down
to 10 ppm oil in the discharge water. (pp. B-11)

9. Code classifications and requirements described in Section 5.2 of Exhibit B shall
apply to the energy facility and to any modifications. (p. B-14)

10. Aircraft warning lights shall be installed on the heat recovery boiler stacks if required
by the FAA. (pp. B-22)

11. Equipment layout shall allow access for fire fighting or responses to any spills when
required. (p. B-29)

12. The facility shall be designed, constructed, tested and operated in accordance with the
codes and standards normally used for this type of facility. Where State of Oregon codes or
local codes specify added or more stringent requirements, these requirements shall be
incorporated into the facility design and construction. Codes listed in Exhibit B, Section
8.0 shall apply. (pp. B-30)

13. All of the equipment listed on Table B-2 may be constructed. PGE may construct the
fuel oil-related equipment shown on Figure B-M10. However, PGE shall not use fuel oil
for electric generation or steam production without prior Council approval.

14. Acid and caustic shall each be stored in individual carbon steel storage tanks. The
tanks shall be located above ground within a concrete containment bermed area. The
bermed area shall contain sump pumps allowing any leakage to be transferred to the
neutralization system. These tanks shall be located outdoors with appropriate weather
protection. Handling of these materials shall be in accordance with approved industry
standard practice as well as federal, state and local regulations. (p. F-4)

15. The ammonia storage system shall be designed to the requirements outlined in
American National Standard Institute (ANSI) K61.1, Safety Requirements for the Storage
and Handling of Anhydrous Ammonia. (p F-4)

16. The hydrogen storage and transfer system shall comply with the guidelines
established in section VIII of the American Society of Mechanical Engineers (ASME)
Boiler and Pressure Vessel Code and in ANSI B31.1 of the American National Standard
Code for Pressure Piping. Other codes that shall be followed include the National
Electrical Code (NEC) Article 500, NFPA 496, ANSI/AWS D1.1 The area immediately
around the hydrogen generators and storage system area shall be an NFPA/NEC Class I,
Division II, Group B Hazardous Area. (p. F-4)

17. For miscellaneous materials described in section 2.7 (p. F-6), appropriate safety
measures shall be taken around the storage sites. Handling and storage of these items shall
be strictly in accordance with approved procedures to provide safe storage of the
substances. (p. F-5)
18. To ensure proper safe handling of the natural gas, the entire system shall be installed and operated in accordance with the NFPA 54; Natural Fuel Gas Code, Part 2; Gas Piping System Design, Materials and Components, Part 3; Gas Pipe installation, Part 4; and Inspection, Testing and Purging. The piping shall be designed in accordance with ANSI B31.8. (p. F-6)

19. Fuel control systems on the gas turbines shall include separate fuel shutoff valves to stop all fuel flow to the unit under shutdown conditions. Fuel flow shall restart when all permissive firing condition have been satisfied. Each fuel shutoff valve shall have a mechanical device for local manual tripping and a means for remote tripping. A vent valve shall be provided on the fuel gas system to vent automatically the piping downstream of the shutoff valve when the fuel shutoff valve closes. Gas shutoff valves shall be installed at the utility pipeline connection point as well as at the facility. The area immediately around the gas system shall be a NFPA/NEC Class I, Division II, Group D Hazardous Area. Operations in the area shall be in accordance with this classification and accepted industrial standards of practice and procedures. (p. F-7)

20. Management of non-fuel substances shall be conducted as described in section 3.2 of the ASC. (pp. F-6 and F-7)

21. Construction phase wastes shall be handled and disposed as described in Section 4.1 of the ASC. (pp. F-7 and F-8).

22. Hazardous waste shall be stored no more than 90 days and transported to a licensed treatment storage disposal facility. (p. F-9)

23. Waste oil shall be collected in a single underground storage tank and trucked offsite to an approved recycling and disposal facility. The underground tank shall be of fiberglass double wall construction to provide corrosion protection and secondary containment. Leakage monitoring shall also be provided. (p. F-10)

24. PGE shall set back heavy plant facilities a minimum of 60 feet from the edge of the irrigation pond to the east of the facility site. (p G-6)

25. PGE shall plant fill slopes with vegetation to prevent surface erosion. (p. G-7)

26. PGE shall implement mitigation measures as described in section 4.0 of the ASC. (p. G-8)

27. PGE shall implement mitigation measures to vegetation impacts described in section 6.0 of the ASC. (p. N-4)

28. PGE shall implement mitigation measures described in section 5.0 of the ASC. (p. P-4)

29. PGE shall implement mitigation measures described in section 5.0. (p. R-10)
30. PGE shall implement mitigation measures described in Exhibit W, unless those are
superseded by more detailed measures described in the Council’s final order of September
16, 1994 or in the site certificate.

XII. CONDITIONS ISSUED PURSUANT TO USING ALTERNATE FUEL IN A NATURAL
GAS-FIRED FACILITY

1. The CSCP shall not exceed permitted emission levels, total emissions or the
allowable amount of distillate fuel use stated in its Air Contaminant Discharge Permit
(amended for distillate fuel burning). The CSCP’s use of distillate fuel in its phase one
combustion turbine in any year shall not exceed an amount of 10 percent of the expected
total fuel use, on a Btu higher heating value basis.

2. PGE shall not use #2 low sulfur distillate fuel oil in its phase one turbine at CSCP
prior to receiving an amended Air Contaminant Discharge Permit from the Department of
Environmental Quality authorizing it to burn distillate fuel.

3. PGE shall prepare a Spill Prevention Control and Countermeasures Plan meeting
federal standards and fully implement it within one year of storing distillate fuel at CSCP.

4. PGE shall prepare a response plan meeting the requirements of a Federal Response
Plan for CSCP suitable for submission to the U.S. Environmental Protection Agency
Regional Administrator prior to beginning filling the second distillate oil storage tank.

IN WITNESS WHEREOF, this Site Certificate has been executed by the State of Oregon,
acting by and through its Energy Facility Siting Council, and Portland General Electric.

[Signature]
Chair, Energy Facility Siting Council

Date: October 22, 1998

[Signature]
On behalf of the applicant
Portland General Electric Company

Date: November 5, 1998