

BEFORE THE NUCLEAR AND
THERMAL ENERGY COUNCIL

In the matter of the)	
Application of Portland)	Stipulation Regarding
General Electric Company)	Air Quality Conditions
for a Site Certificate for)	for Boardman Thermal
the Boardman Power Plants)	Power Plant

The parties to this stipulation are Portland General Electric Company, an Oregon corporation ("PGE"), the staff of the Oregon Department of Environmental Quality ("DEQ staff") and the staff of the Oregon Nuclear and Thermal Energy Council ("NTEC staff").

RECITALS

1. A "contested case" hearing was concluded on October 3, 1974 on PGE's application to construct and operate three thermal power plants, including one 550 (\pm 50) MW(e) coal-fired plant, and certain associated facilities near Boardman, Morrow County, Oregon.
2. The record of that hearing reflects:
 - (a) that concentrations of pollutants presently in the ambient air in the vicinity of the proposed plants are below existing Oregon ambient air quality standards, except for occasional high levels of wind-

blown particulate matter.

(b) that the design of and fuel for the coal-fired plant were not yet specifically known, but that the proposed plant would have some presently undefinable impact on existing ambient air quality.

(c) that PGE represented its willingness and ability to design, construct and operate the coal-fired plant so as to comply with all federal and state emission and ambient air quality requirements.

3. Subsequent to closing the record, several factual developments occurred which have an important bearing on the air quality conditions to be imposed upon the construction and operation of a coal-fired plant at Boardman. These factual developments are as follows:

(a) The Federal Environmental Protection Agency adopted regulations limiting the extent to which newly constructed stationary sources of pollution, including coal-fired power plants, can cause "significant deterioration" of existing ambient levels of particulate and sulfur dioxide concentrations. See 39 Federal Register No. 235, pp. 42510 - 42517 (December 5, 1974).

(b) PGE presented to the Nuclear and Thermal Energy Council ("Council") an unexecuted contract with

Amax, Inc., purportedly securing a supply of coal for the Boardman plant. Copies of this contract, and an analysis of the coal to be supplied thereunder, were supplied by PGE to the DEQ staff and the NTEC staff. Both staffs contend that this information does not resolve the uncertainties contained in the record regarding the air quality impacts of the Boardman coal-fired plant, and in fact tends to heighten those uncertainties.

- (c) During deliberations of the Council held on January 24, 1975, the chairman of the Council ordered that the hearings be reopened to take additional testimony on the air quality impacts of the coal-fired plant, primarily because of the uncertainties surrounding the quantity and quality of the fuel to be supplied under the Amax contract.

4. PGE, DEQ staff and NTEC staff have conferred subsequent to January 24, 1975, with the following results:

- (a) all three parties believe that further hearings will not produce any substantial new or definitive information on the design of and fuel supply for the Boardman coal-fired plant, and that therefore such further hearings should not be held.

- (b) all three parties agree that, given the nature of the Council's "one-stop" siting responsibilities, it is appropriate and necessary to establish now, considering the many uncertainties, appropriate standards which PGE can and must meet in the design, construction and operation of the coal-fired plant so that such plant will comply with all federal and state emission and ambient air quality requirements and will not cause "significant deterioration" of existing particulate and sulfur dioxide ambient concentration levels in the vicinity of the plant.

STIPULATIONS

In light of the above recitals, the parties agree and stipulate, through their respective attorneys,

- (1) That the following documents may be made part of the record in the "contested case" proceeding without further hearing and without cross-examination thereon:

- (a) 39 Federal Register No. 235, pp. 42510-42517, dated Thursday, December 5, 1974, amending portions of 40 CFR Part 52 to insure that state plans implementing the Clean Air Act, as amended in 1970, are designed to prevent significant

deterioration of existing air quality.

(b) Draft coal supply agreement between Amax Inc. (Amax Coal Company Division) and PGE, dated October 1, 1974.

(c) March 19, 1974 Belle Ayr Mine core data field averages, representing an analysis of the coal to be supplied under (b) above.

(2) That PGE should be granted a site certificate to construct and operate a 550 (\pm 50) MW(e) coal-fired thermal power plant at its Boardman site.

(3) That the conditions pertaining to air quality attached hereto as Exhibit 1 and by this reference incorporated herein should be made a part of such site certificate, in order to assure that the construction and operation of the coal-fired plant is accomplished in a manner consistent with the air quality standards of the state and federal governments.

(4) That PGE is able to design, construct, fuel and operate the Boardman coal-fired plant so as to meet all of the air quality conditions attached hereto.

(5) That PGE recognizes the power and ability of the Council to order, independently of ORS 453.395(3) and Section V of the Site Certification Agreement presently before the Council for consideration, the installation of sulfur dioxide emission control equipment to the plant, if the Council lawfully determines, after hearing, that such equipment is required in order for the plant to comply with Federal or State law, rules or regulations, or Section IV(E)(1) of the Site Certificate Agreement.

(6) That the air quality conditions attached hereto are recommended specifically for PGE's Boardman coal-fired plant and are not intended as precedent for other coal-fired plants or other major industrial or institutional facilities which may in the future be constructed and operated in the State of Oregon.

DATED this 11th day of February, 1975.

Portland General Electric Co.

By Warren Hastings
Warren Hastings, Assistant Secretary
and Associate Corporate Counsel

DEQ Staff

By Raymond P. Underwood
Raymond P. Underwood,
Chief Counsel

NTEC Staff

By Richard M. Sandvik
Richard M. Sandvik,
Assistant Attorney General
and Counsel

E. Coal-Fired Plant

1. Highest and Best Practicable Treatment and Control

Notwithstanding the specific emission limitations and ambient air quality standards set forth below, PGE shall construct and operate the Boardman Coal Plant to provide the highest and best practicable treatment and control of air contaminant emissions, so as to maintain existing ambient air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling and other deleterious factors at the lowest possible levels.

The plant shall employ the following design features or practices in furtherance of this requirement:

- (a) Particulate emissions shall be minimized by use of electrostatic precipitators or a baghouse.
- (b) Emission of nitrogen oxides shall be minimized by furnace design features.
- (c) PGE shall blend or otherwise treat all coal as necessary so that coal burned has a sulfur content and high heating value as follows:

$$\frac{\%S \times 20,000 \times K}{HHV} \leq 1.2 \text{ lb SO}_2 / \text{million btu heat input, maximum 2 hr. average}$$

Where:

- HHV = high heating value of fuel, btu/lb as-fired
- %S = sulfur content, by weight percent, of the fuel as-fired
- K = 0.97 (if operations satisfactorily demonstrate that the value of K should be reduced, a new

value may be substituted upon review and concurrence by DEQ)

(d) The sulfur content and high heating value of each shipment of coal shall be determined in accordance with NTEC rule 26-060-11 and reported to the site certificate holder upon or prior to delivery of coal to the site. The analyses shall be supplied to DEQ and the Council upon request.

(e) PGE shall periodically monitor sulfur content and high heating value of coal being delivered to the boiler in accordance with NTEC rule 26-060-11. The point of sampling, monitoring frequency and program will be such that coal exceeding the limits of ^C (a) above will be detected and diverted in order that corrective action can be instituted to meet the limits of ^C (a) above.

Plans and specifications for air quality control equipment shall be submitted to the Department of Environmental Quality for review, ^{and concurrence} with copies to the Council.

2. Emission Standards - Air Quality

The plant shall be designed, constructed and operated in accordance with Federally-promulgated New Source Performance Standards and Department of Environmental Quality Rules in effect as of the date of this agreement. In addition, the following programs and limitations apply:

(a) Particulate emission from the stack shall not exceed:

(1) 0.04 ^{lbs} per million B.T.U. heat input (0.07 ^g per million cal.) maximum two-hour average.

- (2) A visible emission for a period or period aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart or equal to or greater than 20% opacity. Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this limitation.
- (b) Sulfur Dioxide emissions shall not exceed:
1.2 lbs. per million B. T. U. heat input (2.2 g per million cal.) maximum two-hour average.
- (c) Nitrogen Oxide emissions shall not exceed:
0.7 lbs. per million B.T.U. heat input (1.26 g per million cal.) maximum two-hour average, expressed as NO₂.
- (d) The design of the plant shall be such that sulfur dioxide emission control equipment may be installed with a minimum of additional cost and plant disruption. The Council may at any time order such control measures if it concludes they are necessary to comply with Federal or State law, rules or regulations, or Section IV(E)(1) of this certification agreement.
- (e) The design of the stack shall be submitted to the Department of Environmental Quality for ~~Concurrence~~, with a copy to the Council.

3. Ambient Air Quality

- (a) Ambient air quality standards of the Department of Environmental Quality shall not be exceeded due to plant operations.
- (b) Air quality concentrations of pollutants attributable to plant operation shall not exceed the following:
 - (1) Particulate Matter;
 - Annual geometric mean 6 micrograms per cubic meter.
 - 24-hour maximum 15 micrograms per cubic meter.
 - (2) Sulfur Dioxide:
 - Annual arithmetic mean 6 micrograms per cubic meter.
 - 24-hour maximum 26 micrograms per cubic meter.
 - 3-hour maximum 130 micrograms per cubic meter.

4. Fuel and Ash

- (a) PGE shall continue its investigation into the possibility of burning the combustible fraction of solid waste as a supplementary fuel. PGE shall consult with the Department of Environmental Quality on this subject and will present a summary report of findings to the Council within one year of this agreement.

F. Reservoirs and Hydraulic Structures

- 1. Final designs, specifications, and construction methods for the reservoir and appurtenant hydraulic structures shall be submitted for the State Engineer's review prior to construction. No changes shall be made in the final plans without the State Engineer's concurrence.

BEFORE THE NUCLEAR AND
THERMAL ENERGY COUNCIL

In the matter of the)	
Application of Portland)	Stipulation Regarding
General Electric Company)	Final Form of Boardman
for a Site Certificate for)	Site Certification
the Boardman Power Plants)	Agreement

The parties to this stipulation are Portland General Electric Company, an Oregon Corporation ("PGE"), and the staff of the Oregon Nuclear and Thermal Energy Council ("NTEC staff").

RECITALS

1. While NTEC was deliberating upon PGE's Boardman site certificate application, a copy of a site certification agreement acceptable to PGE and the NTEC staff was furnished to the Governor's office. Under ORS 453.395(6), the Governor must either affirm or reject an affirmative recommendation on PGE's application made by NTEC within 30 days after the approved certification agreement is submitted to him.
2. Prior to NTEC's final decision to approve the application, which was made on February 27, 1975, the Governor's office made constructive suggestions, as follows:

- (a) The addition of language whereby PGE, in certain circumstances, waived its right to contest, except upon constitutional grounds, the applicability of state laws enacted in the future to the construction and operation of the plants authorized by the site certification agreement.
 - (b) PGE applied for authority to construct and operate one coal-fired thermal power plant and two nuclear-fueled thermal power plants. Because it was apparent that construction of the two nuclear-fueled thermal power plants would be deferred for at least several years by PGE, the Governor's office suggested that the Council's approval authorize, in addition to the coal-fired plant, construction and operation of two thermal power plants of an unspecified type and design, ranging in size from 500 to 1300 MW(e) each, and that it require further review by NTEC and the Governor if and when PGE decided to construct such plants.
3. These suggestions were incorporated into the site certification agreement approved by NTEC on February 27, 1975.

AGREEMENT

In light of the above recitals, PGE and the NTEC staff, through their respective attorneys, agree and stipulate:

- (1) That the recommendations of the Governor's staff may be accepted into the record as if testified to by a witness under oath and subject to cross-examination.
- (2) That they in fact approved and accepted such suggestions from the Governor's office and recommended to NTEC that the Boardman site certification agreement, in the form in which it was finally approved by NTEC, contain the suggestions made by the Governor's office.

DATED Nunc pro tunc February 27, 1975.

Portland General Electric Co.

By Warren Hastings
Warren Hastings, Assistant Secretary
and Associate Corporate Counsel

NTEC Staff

By Richard M. Sandvik
Richard M. Sandvik,
Assistant Attorney General
and Counsel