PORTLAND GENERAL ELECTRIC

A Legacy of Avoiding Environmental Regulations

For decades, Portland General Electric (PGE) has been ducking, dodging and lobbying their way out of the company's legal obligation to reasonably restrict the hazardous pollution emitted every minute that the Boardman coal-fired power plant is in operation.

Now, PGE has offered to shut down Boardman by 2020, if they are allowed to continue their legacy of polluting without the installation of controls that help prevent dangerous pollution from poisoning families in Oregon. If their unreasonable demand for another decade of unchecked pollution is not met, PGE is threatening to continue polluting at Boardman until midway through the next century.

The following is a timeline which notes some important dates in PGE's legacy of efforts to negotiate their way out of minimizing the dangerous byproducts coming from Oregon's single largest stationary source of pollution, the Boardman coal-fired power plant.

The summary of information below can be supported by documents which are available upon request.

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DATE	IMPORTANT EVENTS
1970	United States Congress adopts the Clean Air Act in its modern form
1971	The U.S. Environmental Protection Agency (EPA) establishes a New Source Performance Standard (NSPS) for coal-fired power plants that limits sulfur dioxide emissions from coal-fired power plants to 1.2 lbs/mmbtu.
February 16, 1972	PGE files a notice of intent to file an application for a Site Certification Agreement with the newly created Nuclear and Thermal Siting Council (NTSC) (now Energy Facility Siting Council).
December, 1974	EPA issues regulations to prevent the deterioration of air quality in areas that had already attained the health and welfare based National Ambient Air Quality Standards (NAAQS).
February 27, 1975	PGE receives a Thermal Power Plant Site Certification Agreement from Oregon's NTSC. The site certification specifies that PGE needs an Air Containment Discharge Permit (ACDP) from the Oregon Department of Environmental Quality (DEQ), along with other necessary permits. PGE executed the agreement on March 24, 1975.
April 4, 1977	PGE submits a Notice of Construction to DEQ for approval. DEQ's records indicate that construction was stalled for the next two years based on several DEQ concerns, including l) the method proposed for handling fly ash, 2) a lack of proper design specifications for monitoring equipment, and 3) the fact that the Electrostatic Precipitator (ESP) to control particulate pollution would not work upon startup and PGE was asking for unlimited cold startups.

August 7, 1977	Congress amends the Clean Air Act to include a program similar to that existing in EPA regulations entitled "Prevention of Significant Deterioration." Congress chose to "grandfatner" existing pollution sources from the NSR provisions at the time the statute was enacted. The "grandfather" clause applies only to facilities "on which construction is commenced after August 7, l977." Congress did not, however, intend that such existing sources were to be forever exempted from the requirements to install pollution control devices. **Congress decided that compliance with the CAA would be triggered when an existing source makes a modification that results in an increase in emissions.**
October 10, 1977	DEQ's internal memos regarding the Boardman plant reveal uncertainty and anxiousness about the need for an ACDP permit during 1977. **One memo stated, "Since we are a little outside of our rules in allowing them to construct without an ACDP, I don't like to delay the ACDP past 1977."**
1978	EPA issues regulations to implement the Clean Air Act's new PSD program. These regulations require that a new source, or a modified source, would undergo a control technology review, an air quality review, and monitoring of air quality both before beginning construction and after operation commenced. These requirements ultimately lead to emissions limitations for new and modified sources that limit the amount of pollution those facilities can emit.
1978	EPA issues a new NSPS emission limitation for coal-fired power plants that limits sulfur dioxide emissions from coal-fired power plants to 10% of potential combustion concentration – requiring a 90% reduction. This NSPS applies to sources constructed or modified after 1978. A "modification" for purposes of determining which NSPS applies requires that the agency compare the actual maximum hourly emission rate during the 5 years preceding the change with the actual maximum hourly emission rate after the change. Permitted emission rates and original design capacity are irrelevant to this question.
February 16, 1978	DEQ releases an Air Contaminant Discharge Permit Application Review Report and Draft Permit. In it, DEQ describes PGE Boardman as follows: The plant's unit 1 capacity is 550 megawatts. This unit and two future ones were authorized by a Thermal Power Plant Site Certification Agreement issued by the State of Oregon on February 27, 1975. The Unit l's single boiler is rated at 3,825,000 pounds of steam per hour at 2620 psig and lOO50 F. it will burn two million tons per year of 0.48% sulfur sub- bituminous coal, 6.4% ash, from the Belle Ayr mine near Gillette, Wyoming.
December 6, 1979	DEQ issues an initial Air Contaminant Discharge Permit (ACDP) to PGE to construct and operate Boardman.
1980	EPA issues further regulations to implement PSD.
January 14, 1980	DEQ reissues Air Contaminant Discharge Permit.

July 7, 1981	PGE writes the Environmental Quality Commission (EQC) to explain why, in the company's view, that PGE's Boardman plant should be included in the "Baseline" concentration for purposes of the New Source Review program. PGE stated that Boardman should be included in the "Baseline" because if it was not, "PGE's ratepayers may be required eventually to spend over $60 million on additional pollution control equipment for Unit 1." **To avoid having to put on this pollution control equipment, PGE asks the Environmental Quality Commission to write specific language into their rules to get PGE the result it wants because PGE "is in no position to convince EPA to revise its New Source Review definition or even to give PGE a favorable clarification of such definitions."**
August 13, 1982	EPA approves Oregon's PSD program. The program is not identical to the federal program, but EPA deemed it to be equivalent to the federal program.
1990	Congress amends the Clean Air Act to include a new program called "Title IV" or the "Acid Rain Program" – which has the stated goals of reducing sulfur dioxide emissions by ten million tons and nitrogen oxide pollution by two million tons by the year 2000. This goal was to be met through a cap and trade program in two phases. Phase I began in 1995 when EPA allocated "SO2 allowances" to electric generating units at an emission rate of 2.5 lbs/mmBtu multiplied by the unit's total heat input in mmBtu (average coal consumed from 1985-1987. Phase II began in 2000, and ratcheted allowances down to an emission rate of 1.2 lbs/mmBtu multiplied by the unit's total heat input in mmBtu (average coal consumed from 1985-1987. PGE Boardman is a Phase II facility. Congress also amends the Clean Air Act to include the "Title V" permit program, which requires that all major sources of air pollution apply for, and receive permits to operate which include all requirements of the Clean Air Act and State implementation plans that apply to that source, schedules of compliance, and sufficient monitoring, testing, and reporting requirements to ensure continuous compliance with applicable limits.
March 21, 1991	PGE CEO Peggy Fowler writes the EPA Administrator **asking that PGE receive special treatment** under the Title IV Acid Rain Program. The facts would require PGE to install a scrubber, but PGE argued that it would be too expensive because the cost to retrofit a scrubber would be "at least $100 milllion." PGE had always burned low sulfur coal – which allowed the facility to emit SO2 at a rate about half of the Phase II allowances of 1.2 lbs/mmBtu. PGE's permit limitation for SO2 had always been, and continues to be, 1.2 lbs/mmBtu. PGE was emitting SO2 at a rate very short of 1.2 lbs/mmBtu at its highest level, meaning that even if PGE was operating fewer hours than a "baseload" plant during the baseline period (1985-1987), PGE could increase its operating time without running out of SO2 allocations.
June 19, 1991	The Oregon Public Utility Commission writes a letter to the Administrator of EPA to urge EPA to grant PGE's request that PGE be provided an alternative "baseline" for calculating the Acid Rain Program allocations that would allow PGE to emit sulfur dioxide at higher rates than if the EPA gave PGE the same baseline as other power plants nationwide.
September 10, 1991	Idaho Congressman Richard Stallings writes a letter to the Administrator of EPA to urge EPA to grant PGE's alternative "baseline" request.
July 10, 1996	The U.S. Forest Service writes to Oregon DEQ to raise concerns regarding visibility impacts from PGE's Boardman Plant.
October 22, 1996	PGE issues its first Title V operating permit.

October 8, 1997	PGE, then owned by ENRON, writes to DEQ to inform them that PGE was making a modification at Boardman to **increase the plant's maximum electrical output capacity from 538 MW to 565 MW hourly**. **PGE informs DEQ that because Boardman's permitted emission limits would not change, and because the change was allowing PGE to utilize existing "design capacity," PGE did not need any approval from DEQ to proceed.** The project was intended to increase plant output by about 47 MW. PGE planned to modify both the boiler (where steam is generated) and the turbine (which the steam turns to produce electricity). PGE installed new blading on the turbine designed to increase power output and efficiency, while the boiler was modified and essentially made bigger to generate the additional steam needed to supply the upgraded turbine. The upgrades were undertaken to use additional generating power in the generator, which could generate 47 MWs more than the turbine. The boiler had excess steam generating capacity that was not being used because under the original design of the facility, extra steam was provided for heating the flue gas after an anticipated sulfur dioxide scrubber was installed.
1998	PGE completes a major overhaul to the Boardman boiler. 9,000 tons of heat transfer surface was added to the boiler, and soot blowers were added to keep the tube elements in the boiler clean.
August 11, 1998	PGE informed EPA that a boiler modification that increased maximum electrical output of the plant from 550 MW to 560 MW.
January 29, 1999	PGE's Board of Directors, including Ken Lay and Jeff Skilling, unanimously approved a $15,000,000.00 upgrade of Boardman's steam turbine.
July 5, 2000	An internal PGE memo discusses the emissions increases as a result of the boiler and turbine upgrades undertaken from 1998-2000 at Boardman. The changes increased actual coal consumption from 298 tons per hour to 323 tons per hour – demonstrated by a stack test in 1995 and "measured average actual performance." **This increase in the amount of coal burned results in an hourly increase of air pollution – which triggers the more stringent requirements of the 1978 New Source Performance Standards.**
July 1, 2001	PGE is issued a renewal Title V permit.
July 25, 2003	PGE writes to DEQ to inform them that PGE was making a modification at Boardman to increase the plant's maximum electrical output capacity from 600 MW to 627 MW hourly. PGE informs DEQ that because Boardman's permitted emission limits would not change, and because the company doing the change made a "contract guarantee" that the modification would not increase fuel consumption, PGE did not need any approval from DEQ to proceed.
July 1, 2006	PGE's Title V permit expires by its terms, but because PGE submitted a Title V renewal application 6 months before the expiration date, PGE could continue to operate Boardman in compliance with the expired permit.
June 19, 2009	Oregon EQC issues a Best Available Retrofit Technology (BART) rule applicable to Boardman, requiring a 46% reduction in NOx by 2011, around an 80% reduction in SO2 in 2014 (requiring a scrubber), and a further 30% reduction in NOx in 2017.
April 1, 2010	DEQ issues a draft renewal Title V permit for Boardman (for the third time since 2006). In the draft permit review report, DEQ states that "the Department is reviewing whether the boiler may have been modified in such a way as to make it subject to subparts Da or Db [of the New Source Performance Standards]."

April 2, 2010	PGE submits a new BART analysis to the DEQ claiming that it would reduce sulfur dioxide from *permitted* emission rates by 20% in 2011 and 50% in 2014 through the use of low sulfur coal. **What PGE fails to mention was that PGE has been burning low sulfur coal at Boardman since it began operation in 1980.** In 1998, Boardman actually emitted sulfur dioxide at a range of rates from 0.206 lbs/mmBtu to 0.947 lbs/mmBtu over 24 hours - with 68% of the days coming in under 0.7 lbs/mmBtu. In 2007, the range was from 0.22 lbs/mmBtu to 0.851, with 78%, or over ¾ of days coming in under 0.7 lbs/mmBtu. PGE's permitted emission rate is, and has been since it was first given a permit to pollute in 1979, 1.2 lbs/mmBtu. PGE has touted its low sulfur emissions due to burning low sulfur coal for years. **In her 1991 letter to EPA seeking special treatment for Boardman under the Title IV Acid Rain Program, Peggy Fowler claimed that the SO2 emission rate for Boardman was 0.8 lbs/mmBtu.**
April 2, 2010	PGE petitions Oregon DEQ to amend the Regional Haze Plan and the BART Rule for Boardman to vacate the requirement that PGE install a sulfur dioxide scrubber in 2014 and a nitrogen oxides scrubber in 2017 and instead require the following: (1) Installation of pre-combustion NOx controls by July 1, 2011 (resulting in a 50 percent reduction in NOx emissions from current permit levels); (2) Reduction of permitted SO2 emissions from 1.2 lb/MMBtu heat input to 0.96 lb/MMBtu (a 20 percent reduction) no later than December 31, 2011; (3) Compliance with an SO2 smission limit of 0.60 lb/MMBtu no later than July 1, 2014 (a 50 percent reduction from current permit levels); and, (4) Closure of the Boardman Plant coal-fired boiler no later than December 31, 2020.
September 28, 2010	U.S. EPA sends Notice of Violation to PGE for non-compliance with the Clean Air Act. PGE will have to meet with EPA to determine how they plan to bring the plant into compliance.
November, 2011	The anticipated date of U.S. EPA's Electrical Generating Unit air toxics rule – (MACT for power plants). It is widely anticipated that scrubbers will be required to control air toxics on plants that do not yet have scrubbers. Under the Clean Air Act, EPA must set a compliance schedule as expeditiously as possible, and can give facilities no more than 3 years to comply. Very specific extensions are available, but these are limited to 1-2 years and must relate to difficulty installing equipment, extensions for early reductions, and national security concerns.