

PSEG Fossil LLC Amendment to 2002 Consent Decree Fact Sheet November 30, 2006

Overview: On July 26, 2002, the United States District Court for the District of New Jersey approved a judicial settlement between the United States Environmental Protection Agency (USEPA), the State of New Jersey, and PSEG Fossil LLC ("PSEG Fossil") to resolve PSEG Fossil's violations of the Clean Air Act. The settlement required PSEG Fossil to install and operate state-of-the-art controls for sulfur dioxide (SO₂), nitrogen oxide (NO_x), and particulate matter (PM) emissions on every coal-fired unit it operates, to retire SO₂ and NO_x allowances, and to undertake environmental projects.

In late 2005, USEPA learned that PSEG Fossil would not be able to comply with the December 31, 2006 deadlines in the 2002 Consent Decree to install a flue gas desulfurization (FGD) device (also known as a "scrubber") to control SO_2 and a baghouse to control PM on its highest polluting power plant, Hudson Unit 2. USEPA also learned that PSEG Fossil would not comply with a May 1, 2007 deadline to install a selective catalytic reduction device ("SCR") to control NO_x at Hudson Unit 2.

Subsequently, USEPA, New Jersey, and PSEG Fossil began negotiating an amendment to the 2002 Consent Decree. The Amendment imposes \$6.0 million in civil penalties for PSEG Fossil's anticipated failure to comply with the 2002 Consent Decree, provides a new timeline to PSEG Fossil to install controls, imposes interim emission reduction measures and requires additional pollution reductions to ensure that the environment will be made whole despite PSEG Fossil's prospective violations of the 2002 Consent Decree. In addition, PSEG Fossil will implement a host of diesel engine retrofit/replacement projects for the State of New Jersey valued at \$3.25 million. With these new requirements, the Amendment is "environmentally neutral" to the 2002 Consent Decree, and achieves permanent reductions beyond that required for in the 2002 Consent Decree.

State Partnerships: The State of New Jersey, as a party to the 2002 Consent Decree and coplaintiff in the original lawsuit, was instrumental in negotiating this Amendment. This Amendment is another excellent example of how the state and federal government can work together to protect the environment and public health.

Affected Power Plants: The Amendment requires pollution reductions and imposes new deadlines on power plants included in the 2002 Consent Decree, including Hudson Unit 2, Mercer Unit 1 and Mercer Unit 2. In addition, the Amendment requires the shutdown of two uncontrolled oil-fired units, Kearny Units 7 and 8.

Environmental Neutrality: The proposed changes to the 2002 Consent Decree will be at a minimum "environmentally neutral." This means that an Amendment has to achieve the same or greater emission benefits as the original 2002 Consent Decree and such emission reductions must take into consideration when they are achieved. This is known as "quantitative and temporal neutrality," respectively.

In addition to installing the required controls at Hudson by the extended duedates, the Amendment achieves **quantitative neutrality** for SO_2 , NO_x , and PM by requiring PSEG Fossil to:

- Achieve an emission rate on its SCRs at Mercer Units 1 and 2 of 0.100 lbs./mmBtu on a 90 day rolling average, by January 1, 2007;
- Advance installation and operation of an FGD on Mercer Unit 2 from 2012 to 2010;
- Operate two <u>new</u> baghouses to control PM and mercury emissions from Mercer Units 1 and 2 by December 31, 2008;
- Limit fuel to 100% ultra low-sulfur coal by May 1, 2007, comply with an SO₂ emission rate, and meet annual tonnage caps for SO₂ and NO_x at Hudson Unit 2 until PSEG installs an FGD or shuts down the unit;
- Install carbon injection systems to make best efforts to achieve a 90% reduction in mercury emissions at Hudson Unit 2, Mercer Unit 1 and Mercer Unit 2;
- Shut down Kearny Units 7 and 8 (two uncontrolled oil-fired units), and surrender any SO₂ allowances allocated to those units in excess of the operational needs for PSEG Fossil's compliance with the amendment and the 2002 Consent Decree.;
- Install PM and Mercury Continuous Emission Monitoring Systems (CEMS).

Table 1, below, identifies the specific changes to the 2002 Consent Decree effected by the Amendment as it relates to Hudson Unit 2, Mercer Unit 1 and Mercer Unit 2.

In addition to considering the quantity that must be reduced to achieve neutrality with the 2002 Consent Decree, the Amendment also takes into consideration PSEG Fossil's delay in failing to timely install and operate pollution controls. In short, a ton of air pollution reduced today is more valuable to public health than a ton of air pollution reduced at some later date. To achieve this "temporal neutrality," USEPA and New Jersey discounted the emission reductions that were later in time than those reductions under the 2002 Consent Decree. To the extent that the discounted emission reductions fell short of the emission reductions under the 2002 Consent Decree, the Amendment requires PSEG Fossil to surrender three times that amount in allowances. For example, the Amendment requires that, to achieve temporal neutrality for NO_x, an additional 410 tons of NOx be eliminated through the purchase and surrender of that quantity of NO_x allowances (1 allowance equals 1 ton of emissions). This amendment also requires PSEG Fossil to surrender an additional 820 NO_x allowances, as a "premium" over and above the amount of allowances necessary to achieve temporal neutrality. In total, 1,230 NO_x allowances will be surrendered.

For SO₂, PSEG was able to demonstrate temporal neutrality. However, for PM, there is a temporal shortfall of 2,856 tons. Since there is no applicable PM allowance program, PSEG

Fossil will be required to surrender 2,856 SO₂ allowances to address this temporal shortfall. Similarly, the amendment requires a premium of 5,712 SO₂ allowances over and above the amount of allowances necessary to achieve temporal neutrality. In total, PSEG must surrender a total of 8,568 SO₂ allowances, or three times the 2,856 SO₂ allowances needed to achieve temporal neutrality for PM.

Option to Shutdown Hudson Unit 2: PSEG Fossil is considering whether or not to shut down Hudson Unit 2 by December 31, 2008. If its decision is to shut down, PSEG Fossil may be ordered by the Department of Energy to operate Hudson Unit 2 to address energy reliability concerns, notwithstanding PSEG Fossil's plans to shut it down. To address this situation, the Amendment requires that even in the face of such an order, PSEG Fossil shall not operate Hudson Unit 2 beyond December 31, 2010 unless it has installed the controls and complied with emission rates and pollution reduction measures in the Amendment.

Planned Shutdown of Kearny Units 7 and 8: The Amendment requires the permanent shutdown of Kearny Units 7 and 8, two uncontrolled oil fired units in the PSEG Fossil system. The Amendment also requires the surrender of any pollution control permits issued for those units, as well as any excess SO₂ or NO_x allowances allocated to those units that are not otherwise needed for PSEG Fossil's compliance in a given year with the Amendment and 2002 Consent Decree.

Civil Penalty and Environmental Mitigation Projects: PSEG Fossil is required to pay a total civil penalty of \$6.0 million to the United States and the State of New Jersey for prospective violations of the 2002 Consent Decree. The United States will collect \$4.25 million in civil penalties. New Jersey will collect \$1.75 million in civil penalties and will require PSEG Fossil to perform environmental projects valued at \$3.25 million focused on reducing particulate matter from diesel engines in New Jersey.

Table 1. Summary Comparison of Pollution Controls/Operating Parameters and Emission Limitations in the Amendment vs. 2002 Consent Decree.

	Hudson Unit 2		Mercer Unit 1		Mercer Unit 2	
	2002 Consent Decree	Amendment	2002 Consent Decree	Amendment	2002 Consent Decree	Amendment
SO ₂ Controls	FGD	Interim: use of ultra low sulfur coal until FGD	FGD	No change	FGD	No change
SO ₂ Control Installation Date	12/31/06	12/31/2010	12/31/2010	No change	12/31/2012	12/31/2010
SO ₂ Emission Rate	0.15 lbs/ mmBTU on 30-day avg; 0.25 lbs/mmBTU on 24-hr avg.	Interim: Overall annual SO ₂ emissions cap and an SO ₂ emissions rate (30 day average) based on the use of ultra low sulfur coal until the FGD is installed. Final: 0.150 lbs/mmBTU on 30-day average; 0.250 lbs/mmBTU on 24-hour average	0.15 lbs/ mmBTU on 30-day avg; 0.25 lbs/mmBTU on 24-hr avg.	Final: 0.150 lbs/mmBTU on 30-day average; 0.250 lbs/mmBTU on 24-hour average	0.15 lbs/ mmBTU on 30-day avg; 0.25 lbs/mmBTU on 24-hr avg.	Final: 0.150 lbs/mmBTU on 30-day average; 0.250 lbs/mmBTU on 24-hour average
NO _x Controls	SCR	Interim: use of ultra low sulfur coal and SNCR year round	SCR	No change	SCR	No change
NO _x Control Installation Date	5/1/07	SNCR operation by 1/1/2007; SCR installation and operation by 12/31/2010	5/1/05	No change	5/1/04	No change

	Hudson Unit 2		Mercer Unit 1		Mercer Unit 2	
	2002 Consent Decree	Amendment	2002 Consent Decree	Amendment	2002 Consent Decree	Amendment
NO _x Emission Rate	0.10 lbs/ mmBTU on 30-day avg; 0.15 lbs/mmBTU on 24-hr avg.	Interim: Overall interim annual NOx emissions cap and an NOx emission rate (30 day average) based upon the use of ultra low sulfur coal until SCR is installed. Final: SCR NOx rate of 0.100 lbs/ mmBTU on 30-day avg; 0.150 lbs/mmBTU on 24-hr avg.	0.13 lbs/ mmBTU on 30-day avg; 0.15 lbs/mmBTU on 24-hr avg.	In addition to existing NOx emission rates, 0.100 lbs./mmBtu on 90-day avg. by 1/1/2007	0.13 lbs/ mmBTU on 30-day avg; 0.15 lbs/mmBTU on 24-hr avg.	In addition to existing NOx emission rates, 0.100 lbs./mmBtu on 90-day avg. by 1/1/2007
PM Controls	Optimize ESP and install polishing baghouse	Install Full size baghouse to replace ESP	Optimize and/or upgrade existing ESP	Install new baghouse to replace ESP	Optimize and/or upgrade existing ESP	Install new baghouse to replace ESP
PM Control Installation Date	Optimization by 12/31/02; Baghouse by 12/31/06	Operate existing ESP and fly ash conditioner by 1/7/2006; Install and operate baghouse by 12/31/2010	12/31/02 (est.)	12/31/2008	12/31/02 (est.)	12/31/2008
PM Emission Rate	0.015 lbs/mmBTU	0.0150 lbs/mmBTU	0.03 lbs/mmBTU	0.0150 lbs/mmBTU	0.03 lbs/mmBTU	0.0150 lbs/mmBTU
Continuous Emission Monitoring Systems (CEMS)	Mercury or PM CEMS	Mercury and PM CEMS	Mercury or PM CEMS	Mercury and PM CEMS	Mercury or PM CEMS	Mercury and PM CEMS
Mercer Controls	None	Carbon Injection by Dec 31, 2010	None	Carbon Injection by Jan 1, 2007	None	Carbon Injection by Jan 1, 2007