

**PSD Applicability Determination
Simpson Tacoma Kraft
Over-fire Air System Project
February 16, 2006**

After a review of the information submitted to the Washington State Department of Ecology (Ecology) on December 13, 2005, and the response to comments received on February 13, 2006 from Geomatrix , Ecology finds that the Over-fire Air System Project **is not subject to Prevention of Significant Deterioration (PSD) review.**

Proposed Over-fire Air Sysyem Project

Simpson Tacoma Kraft (Tacoma Kraft) recently reached an agreement to sell excess steam to Simpson Timber Company (Simpson Timber). Today they are proposing to modify Power Boiler #7 by adding an overfire-air combustion system. In addition, Tacoma Kraft intends to upgrade the multiclones that provide control of particulate emissions. The addition of the overfire air system should increase the boilers efficiency and provide more complete combustion. Lastly, Tacoma Kraft proposes to burn more wood and less oil as a result of the improved combustion efficiency. The number 7 power boiler is expected to increase its average steam production from 170,000 to 194,000 pounds of steam per hour.

PSD Applicability Determination

Tacoma Kraft is an existing Major Stationary Source with respect to PSD because they have actual emissions in excess of 100 tons per year as defined in 40 CFR 52.21(b)(1)(i). In order for a project to become subject to PSD review, the major stationary source must have a significant emissions increase from the project and a significant net emissions increase as calculated over the 5-year contemporaneous period. We will first determine if the proposed project results in a significant emissions increase utilizing the actual to projected-actual test. The result of that test, will be compared to the PSD Significant Emission Rates (SER) to determine PSD applicability. If the resultant emissions are below the PSD SER then the project is not subject to PSD review. If the projects emissions are greater than the PSD SER then all contemporaneous increase and decreases must be summed to determine if the project is subject to PSD review.

Actual to Projected-Actual

The first step in an actual to projected-actual calculation is to determine what the baseline emissions are. The baseline or actual emissions are shown in the table below. The shaded area represents the 24-month period Tacoma Kraft proposes to use as its actual emissions.

Year	NO_x (tpy)	CO (tpy)	SO₂ (tpy)	PM₁₀ (tpy)	VOC (tpy)
1995	245	233	5	3	2
1996	309	159	5	9	4
1997	244	350	8	10	1
1998	257	251	20	6	5
1999	244	254	5	6	1
2000	323	285	6	8	2
2001	254	382	8	24	19
2002	312	297	3	8	26
2003	261	356	33	13	5
2004	217	281	32	14	21
Average (tpy)	289	340	33	16	23

The projected actual emissions were calculated based upon an anticipated 14 percent increase in utilization of power boiler number 7 and a 5 percent decrease in emissions due to the addition of the overfire air system. Those calculations are shown below:

Pollutant	Projected Actual (tpy)	Actual (tpy)	Actual to Projected- Actual (TPY)	PSD SER (tpy)	Subject to PSD Review Y or N
NO _x	285	289	(4)	40	N
CO	266	340	(74)	100	N
SO ₂	26	33	(7)	40	N
PM ₁₀	13	16	(3)	15	N
VOC	20	23	(3)	100	N

As you can see, none of the criteria pollutants exceeds the SER's therefore this project is not subject to PSD review.

Net Emissions Increase

There is no netting calculation necessary because the project itself did not result in an emissions increase greater than the PSD SER's.

Conclusion

Adding an overfire air system to Simpson Tacoma Kraft's power boiler number 7 does not trigger PSD review because the project does not result in emissions greater than the PSD SER's as defined by 40 CFR 52.21(a)(2)(iv)(a). We do however, recommend that Tacoma Kraft be required to comply with Washington Administrative Code 173-400-720(4)(b)(111)(c) which is similar to 40 CFR 52.21(r)(6) in so much as it requires keeping track of and submitting emissions from power boiler number 7 over a five-year period following the modification.