

Seneca plans to spend \$11 million to control power plant emissions

Air pollution authorities will hold a public hearing on the company's proposal Thursday

By Diane Dietz
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When Seneca Sawmill officials announced plans to build a giant wood waste-fired electricity generating plant north of Eugene next fall, they promised to install top-of-the-line pollution controls.

And when it comes to cleaning soot out of the air, the company plans to do far better than the rules require, according to documents Seneca submitted to the Lane Regional Air Protection Agency. When it comes to nitrogen oxide emissions, meanwhile, the company would fall short of the optimum.

Even the Oregon Toxics Alliance, which is critical of some of the company's assertions in its permit application, agrees the company chose good controls, such as enclosing its truck dumping areas and conveyors.

"They are doing a pretty good job, to be honest," said John Herberg, who does research for the Eugene-based environmental group. "But they could definitely be doing more."

The nonprofit alliance is studying Seneca's plans and analyzing its emissions estimates. Members said that initially they would ask Seneca for additional air monitoring for specific pollutants and, also, to help pay for an ambient air monitoring station in west Eugene, Herberg said. The closest ambient air monitoring station is at Amazon Park in south Eugene.

Seneca must secure a permit from LRAPA for its wood-fired power plant that would generate enough electricity to light up 13,000 houses. The air agency has scheduled a public information session on the proposed power plant on Thursday. It will complete its analysis of Seneca's plans this summer.

Overall, the plant would emit more than 400 tons of various pollutants per year, according to Seneca's plan.

The plant construction cost would be \$45 million, and \$11 million of that would pay for pollution controls, Seneca Project Manager Todd Payne said.

The company plans to buy a four-field electrostatic precipitator that can remove more than 99 percent of particulate from the smoke, according to Seneca's air quality permit application. The precipitator has twice the surface area of a typical system for grabbing soot before the air hits the smokestack — winnowing the emissions down to 13 tons of soot per year.

"We didn't want to just meet the thresholds. We wanted to be underneath the thresholds," Payne said. "That goes back to the philosophy of the company when it comes to efficiency. You can see it in our sawmill practices; we're one of the most technologically advanced sawmills in North America."

And the technology costs far more than the other standard pollution controls used for wood-fired boilers in the United States, according to a general analysis of control technology by NESCAUM, an association of air agencies in the northeastern part of the country.

Seneca's plans for soot are important to Eugene-Springfield area residents because, in summer, the prevailing winds blow from the north. Whatever smoke is in the Willamette Valley air in the warm months ends up in the cities' airshed. Soot from smoke is implicated in a spate of heart and lung diseases, recent studies have shown.

But when Seneca gets down to removing nitrogen oxides from the plant's emissions, the company chose a less-expensive technology. The Selective Non-Catalytic Reduction system removes 45 percent of nitrogen oxides from a plant's emissions, according to the company's application. But the most efficient technology, Regenerative Selective Catalytic Reduction, can remove 70 to 90 percent of those smog-forming pollutants from the air.

"What we're proposing is not as effective as the RSCR technology," said Seneca consultant Candace Hatch of Bridgewater Group in Lake Oswego. RSCR "is a much higher cost. I don't have the specifics, but it's in the millions of dollars more than what we're proposing."

The release of nitrogen oxides is of concern to air regulators because the gases react with hydrocarbon in the presence of sunlight to form ozone, or smog. Smog exacerbates asthma and other lung diseases.

The California Air Board recommended the RSCR technology for a similar-size wood-fired power plant proposed by a Roseburg Forest Products factory in Weed, Calif. Roseburg Forest Products rejected the technology based on cost, and the Mount Shasta Bioregional Ecology Center, a nonprofit environmental group, sued in Siskiyou County Superior Court to require the company to use the RSCR technology, among other actions.

The suit is unresolved and the parties are in negotiations, said Karen Rogers, an environmental group board member.

The Roseburg Forest Products plant is surrounded by residents, Rogers said. "There are homes within a couple of hundred feet and a school within one-quarter mile. This is right down in an urban community," Rogers said.

Seneca has the advantage of being outside the city limits north of Eugene and more than three-quarters of a mile from any homes and farther from any schools. The proposed site is just north of the sawmill on company property, east of Highway 99 in the vicinity of the Eugene Airport. However, ozone can drift for miles.

The Environmental Protection Agency last year lowered the ambient standard to 75 parts per billion, down from 84 parts per billion.

The move elicited sharp criticism from the agency's scientific advisory panel, which contended that medical evidence required dropping the standard to between 60 and 70 parts per billion.

Eugene-Springfield area air — with ozone calculations of 64 parts per billion — doesn't violate the old or the new standards for ozone, LRAPA Executive Director Merlyn Hough said. Cars and trucks are the major source of nitrogen oxides and other ozone precursors.

"Even with traffic growth, we've been able to stay within standards, and this last five years we've had a consistent improving trend," he said.

However, if EPA had adopted the standard its advisory panel said would protect public health, the local ozone readings would skirt the healthy range on some summer days.

LRAPA is performing its evaluation of Seneca's application and can't say specifically what pollution controls it will require of the company under the federal Clean Air Act. "That's part of the evaluation that we're doing," Hough said. In Lane County, LRAPA is the designated agency to enforce state and federal clean air laws.

Seneca bills its proposed 18.8 megawatt plant as a source of green electricity that will help break the country's dependence on fossil fuels. The company plans to sell all the power it produces to a local utility, with the electricity potentially replacing energy that the utility now acquires from a coal-fired plant.

Also, because Seneca will no longer haul away some of the wood wastes it produces at the mill, it will reduce truck traffic by about two-thirds, according to the company's application.

The plant will help Oregon meet its goal of having 25 percent of energy provided to customers by large utilities be renewable by 2025, company officials say.

When the plant is complete, 11 new employees will be added to Seneca's 250-employee work force. About 90 people will be employed to build the new plant, according to company estimates.

The Oregon Toxics Alliance, however, challenges Seneca's claim that its plant is environmentally friendly. A natural gas-fired plant could produce the same energy with less pollution, Herberg said.

"It's still dumping, like, 15 tons of particulate matter a year," he said. "It's all relative. If you compare this to oil or coal, it looks pretty good. If you compare it to not putting up a power plant at all, it's not that good."

PLANT POLLUTION

Seneca Sustainable Energy proposes burning about 280,000 tons of bark, shavings and sawdust per year at a power plant it would build north of Eugene. Here are the pollutants the company figures it will emit after it installs pollution controls:

Dust particulate (PM10): 13 tons a year
Smoke particulate (PM2.5): 13 tons a year
Nitrogen oxides: 186 tons a year
Carbon monoxide: 201 tons a year
Volatile organic compounds: 8 tons a year
Sulfur dioxide: 39 tons a year
Lead: 0.005 tons a year
Hazardous air pollutants: 17 tons a year
