DEQ Permits New Incinerator for Better Air Quality

JANUARY, 2023 Hagadone News Network | December 13, 2022. The Idaho Department of Environmental Quality is ready to sign a permit to Shoshone County next week for the first air curtain incinerator in the state of Idaho.

"It will substantially reduce the material (Shoshone County) has to ship to a landfill, so not only will it help the environment, it'll save the county money," said Shawn Sweetapple, DEQ air quality manager.

The machine can start burning huge stacks of slash piled up after major windstorms downed trees along county roads in 2019 in Shoshone County, Sweetapple said.

"Road and bridge department was cutting down branch after branch and they had I don't know how many tons of woody material to get rid of," said Dan Smith, regional airshed coordinator for DEQ. "If they were to burn that traditionally, it would be a terrible pollutant problem."

The curtain incinerator is exciting to Smith, who fights to keep air quality in the Panhandle within the federal standards, because it re-routes smoke in the incinerator back into the flames to reduce particulates and air pollution.

The incinerator emits 85% less pollution than traditional burning and will greatly reduce the impact of disposing of the countless tons of woody material at the Kellogg transfer station, Smith said.

A study published by Susan M. Zahn, Fuels Management Specialist for the U.S. Forest Service found air curtain incinerators produce lower smoke emissions, burn a greater variety of materials from dead to green vegetation, reduce fire risk, operate with fewer restrictions in weather conditions, and contain a burn area to a specific site.

"We would like to see more of these come into use in our area, because the more we can reduce open slash burning in general is good for everyone's air quality," Sweetapple said.

Smith normally fights to prevent burning green wood because of the negative impact it has on local air quality, but the new incinerator will allow broader burning for more efficient disposal of wood waste.

"It is not a solid waste incinerator," Sweetapple said. "Just clean woody waste."

In the winter months when burn permit requirements are not in effect, air quality drops, Smith said.

During climate inversions, wood stoves and fireplaces can add to air pollution, compounded by clearing of commercial property for developments, where companies will burn huge piles of material and green trees to clear land for construction.

Every winter, those factors increase pollutants in the air, Smith said, which can reach dangerous levels in valley areas, like St Maries, or Hayden Lake.

"Your neighbor burning slash piles gets into your indoor air," Smith said. "And indoor air tends to be more concentrated."

Pollutants also contribute to the spread of viruses.

"Viral interaction with particulate matter increases transmission of viruses," Smith said.

So the DEQ provided \$150,000 in grant money for the incinerator in Shoshone, and it hopefully will pave the foundation for other air curtain incinerators to follow.

"It's much healthier than regularly burning a slash pile."



Dan Smith, regional airshed coordinator for the Idaho Department of Environmental Quality, checks the live air quality in St. Maries, Coeur d'Alene and other Panhandle regions. JOSA SNOW/Hagadone News Network