

NEWS

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WINCO, PRIVATE VENDOR DEMONSTRATES TECHNOLOGY FOR CLEANER DECONTAMINATION

Westinghouse Idaho Nuclear Co., a Department of Energy contractor at the Idaho National Engineering Laboratory, and a private vendor are demonstrating a decontamination technology they hope will greatly reduce hazardous waste generation.

The technology is called "CO2 pellet blasting," and uses frozen carbon dioxide pellets to remove radioactive particles from contaminated equipment, tools, and facilities. Using CO2 rather than water or chemicals reduces the amount of liquid and mixed (hazardous and radioactive) wastes generated during decontamination.

The pellet blasting system begins with liquid CO2, which is transported through a hose to a pelletizing machine, where it is converted to a dry ice or snow. The snow is compressed into pellets, which are transported through a hose to a blasting nozzle. The pellets are entrained in high pressure air and propelled from the nozzle onto the surface to be decontaminated. The pellet penetrates the contaminated coating of the surface, then "mushrooms" under the coating as it strikes the surface, causing the coating to fall off.

Because the pellet blasting method does not chip the surface, it doesn't create contaminated debris which also has to be treated as a waste.

WINCO and Environmental Control Division of Denver, Colo. have been testing the pellet blasting system at the Idaho Chemical Processing Plant since August. "What we've found is that it works well to remove paint, tape and other types of loose contamination," said Julie Tripp, manager of decontamination and low-level waste development for WINCO.

The demonstration will help WINCO determine if it wants to purchase a pellet blasting system for ongoing decontamination work at the ICPP. The demonstration also will explore whether pellet blasting can remove hazardous chemicals from mixed waste debris. EG&G Idaho, another INEL contractor, is looking at whether pellet blasting can be used to decontaminate surplus lead.

"This is not a new technology, but it is a technology that hasn't been used extensively at DOE facilities before," said Tripp. "It has a lot of potential to reduce waste and increase efficiency."

Note to Editors: Media are invited to attend a pellet blasting demonstration on Tuesday, Oct. 19 at 9:30 a.m. at the Idaho Chemical Processing Plant. Transportation will be provided from the IETC Building, One Energy Drive, Idaho Falls, at 8 a.m. If you are planning to attend the demonstration please contact Brad Bugger by noon, Oct. 18.

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