

**Testimony of the Honorable Madelyn Creedon
Principal Deputy Administrator
National Nuclear Security Administration
Defense Nuclear Facilities Safety Board Public Hearing
Santa Fe Convention Center
March 22, 2016**

Thank you, Madam Chairman, Members of the Board. I appreciate the opportunity to be here this evening to discuss the safety of transuranic waste operations at Los Alamos National Laboratory (LANL). Today I will address actions that the National Nuclear Security Administration (NNSA) has already taken or is planning to take that are related to the radiological release event at the Waste Isolation Pilot Plant in February 2014.

The release at WIPP resulted from an unexpected exothermic reaction and pressure build up in a single 55-gallon drum of transuranic waste. This drum failed and released radioactivity inside WIPP. The drum was one of a number of nitride salt drums that were being remediated at Los Alamos. A detailed Accident Investigation Board was chartered to determine the root cause of the incident. This investigation revealed that during the course of the remediation an improper absorbent material was used in the drums to absorb liquids.

Subsequent to the event, Los Alamos personnel identified another 60 waste drums, which are currently stored at Los Alamos and which contain similar waste, remediated using the improper absorbent.

The question then is, What about the 60 drums at Los Alamos? Is it possible that they would suffer the same fate as the drum at WIPP? Since February 2014, Los Alamos and the Department of Energy have looked at this question extensively. Experimental evidence has now demonstrated that the risk of a similar exothermic reaction is minimized by controlling the pressure and the temperature within each drum.

As a result of this finding, and in consultation with the State of New Mexico, DOE/NNSA developed and executed an Isolation Plan to ensure the safety of these 60 waste drums. This plan involved placing the drums into individual large, robust metal containers and storing the containers in a climate-controlled structure at Los Alamos. Each of the containers has a filtered ventilation system and a new supplemental cooling system has also been installed at the structure. The containers are closely monitored every day.

Because we do worry about a fire and heat buildup in the structure, NNSA, in partnership with the DOE Office of Environmental Management, has made significant reductions in the available vegetative fuel sources surrounding the structure. In other words, the brush surrounding the general area has been removed. We have also taken other measures, such as developing fire breaks, to drastically lower the probability that a wildland fire could endanger these drums.

With air conditioning in the structure and the fire protection now in place, we are moving to provide additional pressure relief mechanisms for the key individual drums. With these new

mechanisms in place, a reaction similar to what happened at WIPP will be prevented by two independent means: one, controlling the temperature, and two, controlling the pressure of the drums. These measures will remain in place until the drums can be fully remediated.

In closing, I would like to reiterate NNSA's commitment to working closely with EM and with the State of New Mexico, to ensure that all appropriate efforts are made to reduce the risk posed by the 60 transuranic drums stored at Los Alamos.

Thank you again for the opportunity to be here tonight, and I look forward to answering any questions you might have.