*A U.S. Department of Energy Site-Specific Advisory Board*

# NNMCAB Members



March 30, 2017

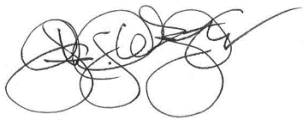
Mr. Doug Hintze, Manager
Environmental Management Los Alamos Field Office
1990 Diamond Drive, MS M984
Los Alamos, NM 87544

Dear Mr. Hintze,

I am pleased to enclose Recommendation 2017-01, "WIPP Surface Storage", which was approved by the Northern New Mexico Citizens' Advisory Board during its meeting on March 29, 2017.

Please contact me if you have questions regarding this recommendation. We look forward to the response from the Department of Energy.

Sincerely,



Gerard Martínez y Valencia
Chair, NNMCAB

Enclosure: a/s
Cc w/encl:
U. S. Senator Tom Udall
U. S. Senator Martin Heinrich
U. S. Congressman Ben R. Lujan
Secretary Butch Tongate, NMED
David Borak, DFO (via e-mail)
Stephen Hoffman, Deputy Manager, EM-LA (via e-mail)
M. Lee Bishop, Co-DDFO (via e-mail)
Michael Gardipe, Co-DDFO (via e-mail)
Andrea Romero, RCLC Executive Director (via e-mail)
Gil L. Vigil, Executive Director Eight Northern Indian Pueblos
Menice B. Santistevan, NNMCAB Executive Director
NNMCAB File


***Northern New Mexico Citizens' Advisory Board***
***94 Cities of Gold Road***
***Santa Fe, NM 87506***
***Phone: 505-989-1662 Fax: 505-989-1752***
***1-800-218-5942***
www.energy.gov/em/nnmcab

**NORTHERN NEW MEXICO CITIZENS' ADVISORY BOARD**
**Recommendation to the Department of Energy**
**No. 2017-01**
**WIPP Surface Storage**
**Drafted by: Stephen Schmelling**

## Background

The Waste Isolation Pilot Project (WIPP), located near Carlsbad, New Mexico, is the country's only deep geologic repository for Transuranic (TRU) waste. The unique nature of WIPP makes it a critical piece of the infrastructure of the Department of Energy's (DOE) TRU Program. The efficient operation of WIPP is essential to allowing the DOE to dispose of legacy TRU waste, large quantities of which are stored in temporary storage facilities across the DOE complex prior to being delivered to WIPP. Some of this waste is currently ready to be shipped to WIPP, while other TRU waste is in various stages of preparation for shipment to WIPP. The need for efficient operation of WIPP has been made particularly critical since separate critical incidents forced the shut-down of WIPP in February 2014, causing an approximately three-year delay in meeting the long-term goal of the TRU waste program to eventually have all TRU wastes disposed at WIPP. Although WIPP is now back open, it will only begin accepting shipments of waste in May 2017.

When WIPP begins accepting new waste shipments, it will only be able to accept a very limited number of shipments per week, which is approximately the rate at which waste can be emplaced below ground. Many of these shipments come from sites that are several days drive from WIPP, and must be planned well in advance and cannot be easily rerouted or stopped once they are underway. Moreover, WIPP has very limited surface storage so that any significant delay in the rate at which waste can be emplaced below ground requires that deliveries to WIPP cease for the duration of the problem. In particular, WIPP requires regular maintenance shutdowns of several week's duration. When these occur, waste deliveries must generally stop. Conversely, inclement weather in parts of the country remote from WIPP, may also cause shipments to be halted, and disrupt planned waste disposal activities at WIPP. One consequence of this situation is that it introduces significant inefficiencies in the rate at which WIPP can accept and emplace waste. These delays mean that the rate at which the TRU waste program can complete its mission is significantly slowed.

One solution to this situation would be to increase the amount of surface storage at WIPP to create a buffer that would allow a steadier rate of delivery and disposal, and allow for smoother and more efficient operation of the TRU waste disposal program. DOE has submitted a modification to its Class 3 Hazardous Waste Disposal Permit with the New Mexico Environment Department (NMED) that proposes the construction of an above-ground storage facility at the WIPP site that would allow WIPP to store approximately a one-year buffer of TRU waste for a period of up to one year. In theory, at least, this would allow for more efficient operation of WIPP and faster emplacement of TRU waste that is stored around the DOE complex, a subsequent overall reduction in risk, and faster completion of the TRU waste program mission.

## Comments and Observations

The Northern New Mexico Citizens' Advisory Board (NNMCAB) has always worked very closely with DOE, and LANL, to make sound recommendations to DOE concerning legacy waste clean-up

activities in and around Los Alamos. The NNMCAB has also worked diligently to keep the citizens of Northern New Mexico aware of the progress of these activities. DOE has always shown positive and respectful consideration to NNMCAB recommendations.

LANL currently has a large quantity of TRU waste stored above ground as well as additional significant quantities of waste below ground, all of which should be shipped off the hill as soon as possible. In addition, Waste Control Specialists in Andrews, Texas is storing over 100 drums of similar composition as the drum which reacted at WIPP. Other DOE sites such as the INEL also have large quantities of TRU waste in various stages of readiness to be shipped to WIPP. Storing this waste at the individual DOE sites is both costly, and riskier than permanent storage underground at WIPP. Therefore, anything that could speed up the process of disposing of TRU waste in a more efficient manner is worth considering.

The above-ground storage facility proposed by WIPP has the potential to make the TRU waste disposal process more efficient. The permit modification submitted to the NMED contains a quite detailed description of this proposed addition to the WIPP facility. It is a fairly straightforward construction project and there is little reason to doubt, that if constructed to the proposed specifications, it would be capable of temporarily storing a large quantity of TRU Waste. However, the permit modification provides no information on the cost of this facility, or the expected benefits to be derived from it either in terms of the more efficient operation of the WIPP facility, or the reduction in risk around the DOE complex from the more efficient operation of WIPP and the TRU waste disposal process.

## Recommendation

1. The NNMCAB supports the general idea regarding DOE's efforts to increase the efficiency of the operations at WIPP and increase the rate at which TRU waste can be permanently disposed below ground.
2. The NNMCAB recommends that DOE prepare for public review, information on the expected benefits and costs of this proposed addition to the WIPP facility in terms of more efficient operation of WIPP; an overall reduction of risk around the DOE complex from an increased rate of disposal of TRU waste, considering any increase in risk from the additional waste stored above ground at WIPP; and the impact of the cost of this facility on other DOE facilities, particularly LANL.

## Intent

It is the intent of this recommendation that DOE conduct and make public, a thorough analysis of the costs and benefits to the overall TRU waste program of this proposed addition to the WIPP facility.

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## References

1. Class 3 Permit Modification Request – Addition of a Concrete Overpack Container Storage Unit, September 29, 2016