STATUS OF THE RE-OPENED WASTE ISOLATION PILOT PLANT (WIPP) The U.S. geologic repository for some defense nuclear waste

WASTE STORED ON THE SURFACE SINCE FEBRUARY 2014

Since the fire and radiation release in February 2014, WIPP could not receive new waste shipments. Waste on the surface and waste then in transit have been stored in the Waste Handling Building (WHB). That waste is in 144 containers, containing 145.3 cubic meters of contact-handled (CH) defense transuranic (TRU) waste. In June 2014, an additional 10 containers of CH "derived waste" from contaminated air filters was stored in the WHB, increasing the total amount of waste to 164.1 cubic meters. In March 2015, another CH "derived waste" container was filled, increasing the total



amount of waste to 166 cubic meters. The Department of Energy (DOE) stated that when WIPP re-opened, it would move that stored waste into the underground before shipping in more waste. The WIPP Hazardous Waste Permit has a 60-day storage limit for waste stored in the WHB. DOE requested, and the New Mexico Environment Department (NMED) approved, numerous extensions to the storage limit.

WASTE EMPLACEMENT BEGAN ON JANUARY 4, 2017

On January 4, 2017, 24 55-gallon drums were taken underground and emplaced in Panel 7, Room 6. Additional waste was emplaced on January 11, 19, 24, 26, 31, February 7, 9, 14, 16, 23, and 28, totaling 107 of the 144 stored containers and all 11 "derived waste" containers. The remaining 37 stored containers were not yet approved under new procedures to be disposed. On April 13, seven large vehicles and pieces of equipment that were contaminated in Panel 7, Room 6 were deemed "disposed." Such disposal does not comply with the WIPP Permit because the waste is not in containers and six vehicles had a total of 527 gallons of combustible liquids, which is not permitted for disposal. Because of potential roof falls, DOE stated: "Sending underground workers into this area in its present condition to drain the fluids and retrieve the batteries from the equipment would present an imminent and substantial endangerment to worker safety." <u>http://www.wipp.energy.gov/library/Information Repository A/Follow-up Reports/16-3341_Redacted.pdf</u>

WASTE SHIPMENTS RESUMED ON APRIL 7, 2017

On April 7, a shipment arrived from the Idaho National Lab (INL). As of September 9, there were 37 more shipments from INL, 9 shipments from the Savannah River Site (SRS), SC, and 3 from Oak Ridge (OR), TN. In addition, 10 shipments had arrived from Waste Control Specialists (WCS), which had received 39 shipments from Los Alamos National Lab (LANL) in 2014.

PLANNED FUTURE SHIPMENTS

By September 30, 2018, DOE plans to have another 152 shipments from INL, SRS, OR, WCS, and LANL. The number of shipments in the following year (to September 30, 2019) is expected to drop to 122 because of the need for significant renovations to the waste hoist that carries waste underground. That work will prevent waste from being emplaced underground for some months. For comparison, October 1, 2007 to September 30, 2012, there were 4,757 shipments. In the last five years (October 1, 2012 to September 30, 2017, there will be about 1,100 shipments.

CONCERNS ABOUT RE-OPENING – UNDERGROUND CONTAMINATION

The February 2014 radiation release contaminated more than 8,000 linear feet of the WIPP underground. Much of that area is too contaminated for workers, unless they have significant personal protection equipment (PPE), including self-breathing respirators. Even in the best of circumstances, underground waste emplacement is slower, more complicated, and there is much more risk of worker exposure than existed during the first almost 15 years of WIPP's operation (March 26, 1999 – February 5, 2014). WIPP was always supposed to be a "start clean, stay clean" facility, in which there would be no significant radiation exposures because waste would always remain in its containers and there would be virtually no contamination of the WHB or the underground. That part of WIPP's mission is not being accomplished.

CONCERNS ABOUT RE-OPENING – INADEQUATE VENTILATION

The underground contamination also requires air exhausted to be filtered before going into the environment. WIPP's ventilation system was not designed for waste emplacement and underground mining in filtration mode. Until there is a new ventilation system, currently scheduled for 2022, underground activity is much more limited than before 2014.

CONCERNS ABOUT RE-OPENING – MINE INSTABILITY

The contamination and lack of ventilation also limit the amount of "ground control" which is needed to address the constant movement of the ceiling, walls, and floor in the salt mine. Roof bolting also cannot be done in the contaminated Panel 7 where waste is being emplaced, leading to the likelihood of more roof falls that endanger workers and could result in radioactive and toxic chemical releases.

INSUFFICIENT CAPACITY

The Government Accountability Office (GAO) issued a September 2017 report that found: "DOE does not have sufficient space at WIPP to dispose of all defense TRU waste." When will DOE and Congress start looking for other repository(ies) or long-term storage at other sites?

WHAT IS WIPP'S FUTURE?

DOE has several proposals to expand WIPP's mission to more waste with much higher radioactivity. Those proposals are contrary to the capacity and radiation limits set in the WIPP Land Withdrawal Act of 1992. There is much opposition in New Mexico to those proposals, which ultimately cannot be approved unless Congress changes the law.

WHAT CAN PEOPLE DO?

People in New Mexico will be involved in proceedings regarding changes to the WIPP operating permit. People everywhere can contact their representative and senators regarding WIPP funding, funding needs for other sites, and legislation that would expand WIPP or begin the process to find new repository or long-term storage sites.

SOURCES OF INFORMATION

The DOE WIPP website: <u>http://www.wipp.energy.gov/</u> The NMED website: <u>http://www.env.nm.gov/hazardous-waste/wipp/</u> The GAO report: <u>http://www.gao.gov/products/GAO-17-390</u> The Southwest Research and Information Center (SRIC) website: <u>http://www.sric.org</u>

--September 15, 2017