

RESPONSES TO NEPA REVIEW REQUESTS

Land Use

How compliance is controlled: The WIPP Land Withdrawal Act granted the Secretary of Energy sole responsibility for managing the lands that encompass the WIPP facility. In order to execute this responsibility, the DOE developed a Land Management Plan (LMP) as required by the WIPP LWA to identify resource values, promote multiple-use management, and identify long-term goals for the management of WIPP lands. The LMP was developed in consultation with the BLM and the State of New Mexico.

The LMP sets forth cooperative arrangements and protocols for addressing WIPP-related land management actions. This LMP is reviewed biennially to assess the adequacy and effectiveness of the document, or as may be necessary to address emerging issues affecting WIPP lands. Affected agencies, groups, and/or individuals may be involved in the review process.

Parties who wish to conduct activities that may impact lands under the jurisdiction of the DOE but outside the property protection area are required by the LMP to prepare a land use request. A land use request consists of a narrative description of the project, a completed environmental review, and a map depicting the location of the proposed activity. This documentation is used to determine if applicable regulatory requirements have been met prior to the approval of a proposed project. A land use request is submitted to the Land Use Coordinator by organizations wishing to complete construction on rights-of-way, pipeline easements, or similar actions within the WIPP LWA, or on lands used in the operation of the WIPP facility, under the jurisdiction of the DOE.

In FY 2010, nine land use requests were submitted to and approved by the Land Use Coordinator.

1. Rio Tanks FAS line service
2. Reconstruction of the South Access Road
3. Dawson Geophysical 3D seismic survey
4. Allow Magnum Minerals and their contractors to maintain the road and fence line, install cattle guards and/or gates and provide access to remove salt tailings from WIPP.
5. Corrective and Preventive Maintenance Outside the Property Protection Area
6. Rockhouse Water Services LLC requests permission to lay a temporary poly pipeline
7. Restripe North Access Road
8. BLM mesquite spray projects scheduled between May and July.
9. Allow OXY USA Inc. access to its proposed new drill location Lost Tank 3 #22 in Section 3.

In FY 2011, eight land use requests were submitted to and approved by the Land Use Coordinator.

1. Use excavated caliche from NSSEP to be used on the South Access Road.
2. Install a pipeline beneath the South Access Road.
3. Place a Fasline for Yates Petroleum.
4. Corrective and Preventive Maintenance Outside the fenceline
5. Install a water line under the South Access Road
6. Bore and case North Access Road.
7. BOPCO, L. P. temporary 10" water line for completion of the James Ranch Unit #12 wells.
8. Cetane test.

In FY 2012, 14 land use requests were submitted to and approved by the Land Use Coordinator.

1. James Ranch Unit #12 SWD Water Transfer Line.
2. James Ranch Unit #12 SWD Oil Transfer Line.

RESPONSES TO NEPA REVIEW REQUESTS

3. Installation of MCQ Inc. Security Components to the Meteorological Tower.
4. James Ranch Unit #12 10" Gas Sales Line.
5. The layout of the parking lot will be changes to accommodate the need to barricade the straight-line approach to the Vehicle Trap during certain security conditions, creating a serpentine approach.
6. Installation of electric line for Apache 25 Federal #4 well
7. Corrective and Preventive Maintenance Outside the fenced area.
8. Wind Erosion Measuring and Modeling.
9. Install permanent railroad crossing using 140' of 30" SCh80 (1/2" wall) steel welded pipe (casing) in borehold under railroad crossing in Section 25 T22S, R30E.
10. James Ranch Unit temporary fresh water lines.
11. James Ranch Unit power line.
12. Maintenance of Electric Transmission Line
13. Rio Tanks Fas-Line installation
14. Rock House Water Services, LLC (temporary fresh water line).

In FY 2013, three land use requests were submitted to and approved by the Land Use Coordinator.

1. Overhead electric line crossing the WIPP South Access Road.
2. Corrective and Preventive Maintenance.
3. Underground Pipe Line WIPP (South Access) Road Crossing.

In 2014, seven land use requests were submitted to and approved by the Land Use Coordinator.

1. Corrective Action/Preventive Maintenance for CY 2014: Includes North and South Access Roads and cattle guards leading off these roads.
2. Bore under North Access Road for flow access lines.
3. Conveyance of fresh water to various oil and gas drilling companies for drilling and fracturing projects.
4. Install two overhead tanks to be filled with water.
5. Install ambient air monitoring station on the northeast corner of the WIPP facility (CEMRC).
6. Remove the railroad crossing and repave the area on the North Access Road.
7. Western Southwest Refining and Willbros Group, Inc. pipeline boring.

In 2015, five land use requests were submitted to and approved by the Land Use Coordinator.

1. Powerline crossing of North Access Road.
2. Mesquite control within EUA by land sprayer.
3. 1009 Relief Valve overspray.
4. Remove obstructions and replace cattle guard on North Access Road.
5. Upgrade power to building 477 to provide cell phone communication for the WIPP site.

In 2016, seven land use requests were submitted to and approved by the Land Use Coordinator.

1. Repairs to salt pile liner and SPDC liner.
2. Project #15-D-411 New Filter Building Geotechnical Study.
3. Install meteorological monitoring station at Far Field atmospheric monitoring station.
4. EXCEL Energy-WIPP substation expansion.
5. Project #15-D-412 UES Shaft Geotechnical Study.
6. DOE Roof Asset Management Program- Roof Repairs and Upgrade Project.
7. EXCEL Energy 115KV power line crossing and driveway installation.

Questions:

RESPONSES TO NEPA REVIEW REQUESTS

LU-1 Verify there will be no changes in land use from resumption of TRU disposal operations compared to operations prior to February 2014.

The land is already authorized for any activity the Secretary of energy deems necessary to further the mission of the WIPP Project, including waste disposal activities. The CBFO anticipates no change in these activities. None of the land use requests is related to waste management activities. The Bureau of Land Management (BLM) has not proposed changes to the grazing leases within the WIPP site boundary or in the immediate area around the WIPP site as the result of the February 2014 incidents.

LU-2 Describe any notable changes to land use or management since the May 2009 SA.

See the list above. An agreement for the sale of 300,000 tons of run-of-mine salt from the WIPP to Magnum Minerals LLC of Hereford, Texas, was reached in December 2009. This requirement was met in that the contract was negotiated without use of competitive bidding as the Secretary determined it was impracticable to obtain competition and that the proceeds from the disposal of the materials would be used in connection with a public works improvement program. This program was terminated with salt shipments ceasing February 14, 2014.

Air Quality

How compliance is controlled: The Clean Air Act (42 U.S.C. §§7401, et seq.) provides for the preservation, protection, and enhancement of air quality. Both the state of New Mexico and the EPA have authority for regulating compliance with portions of the Clean Air Act. Based on an initial 1993 air emissions inventory, the WIPP facility is not required to operate under Clean Air Act permits. In 1993, the DOE obtained a New Mexico Air Quality Control (NMSA 1978 §74-2) Regulation 702 Operating Permit (recodified in 2001 as 20.2.72 NMAC, "Construction Permits") for two backup diesel generators at the WIPP facility. No activities or modifications to the operating conditions of the diesel generators occurred in 2015 requiring reporting under the conditions of the Operating Permit.

The Clean Air Act established National Ambient Air Quality Standards for six criteria pollutants: sulfur oxides, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. The initial 1993 WIPP air emissions inventory was developed as a baseline document to calculate maximum potential hourly and annual emissions of both hazardous and criteria pollutants. Based on the current air emissions inventory, WIPP facility operations do not exceed the 10 ton per year emission limit for any individual hazardous air pollutant, the 25 ton per year limit for any combination of hazardous air pollutant emissions, or the 10 ton per year emission limit for criteria pollutants except for total suspended particulate matter and particulate matter less than 10 microns in diameter. Particulate matter is produced from fugitive sources related to the management of salt tailings extracted from the underground. Consultation with the NMED Air Quality Bureau resulted in a March 2006 determination that a permit is not required for fugitive emissions of particulate matter that result from salt management at the WIPP facility. Proposed facility modifications are reviewed to determine if they will create new air emission sources and require permit applications. For 2016, 2015, and 2014 VOC emissions from containers of TRU and TRU mixed waste remained less than 10 tons per year for individual VOCs monitored under the Permit.

Questions:

AQ-1 Are there any new sources of non-radiological emissions compared to operations prior to February 2014? If so, explain.

The DOE has constructed the Interim Ventilation System (IVS) to provide additional filtered ventilation air for underground operations. With IVS, the maximum ventilation flow for the underground is about 114,000 cubic feet per minute (cfm). This is compared with the 426,000 cfm that was used prior to the

RESPONSES TO NEPA REVIEW REQUESTS

February 2014 incidents. The vent for these emissions from the IVS is the same stack that is used to vent the original filtration fans. Therefore, the response to this question is no, there are no new sources of emissions.

AQ-2 Describe any notable changes to air quality since the May 2009 SA (including ambient AQ or pollution sources).

The DOE has not noticed, nor identified through monitoring, changes in air quality since the 2009 SA.

Geology/Hydrology

How compliance is controlled: A groundwater detection monitoring program is required by the WIPP Permit Part 5, Groundwater Detection Monitoring, and is incorporated into the WIPP Permit as Attachment L, WIPP Groundwater Detection Monitoring Program Plan. This program has been implemented. Background groundwater quality samples were collected and the data submitted to the NMED prior to receipt of TRU mixed waste at the WIPP. Through implementation of the WIPP Groundwater Detection Monitoring Program, the Permittees submit groundwater monitoring results to the NMED annually for required parameters and hazardous constituents. Monitoring data are maintained in the facility operating record. The WIPP Groundwater Detection Monitoring Program results showed no significant difference from baseline concentrations, confirming the absence of contamination.

Question:

GEO-1 Describe any studies or new information relevant to geology or hydrology that have been developed since the May 2009 SA (that could have a bearing on potential impacts or analysis).

The DOE has initiated the following groundwater or geology programs that have resulted in new information regarding the geology or hydrology of the area.

Permanent Ventilation System and Filter Building Support

Surveying Activity

Surveying included performing ground elevation surveys on 10 foot centers for the construction of both the new filter building and shaft. In addition the survey included the locations of the geotechnical borehole locations and geotechnical sampling trenches.

New Filter Building Geotechnical Borings

Ten geotechnical boreholes were drilled to support this activity. The boreholes ranged in depth from 30 feet to 100 feet below ground surface. Geotechnical samples were used for analysis of structural data for design of the new filter building.

New Exhaust Shaft Drilling/Coring Program

Shallow Subsurface Water (SSW) Coreholes and Monitoring Wells

The main purpose of the three to four wells is to determine the static water level of the shallow subsurface water, if it exists at the proposed shaft location. Coring and geophysical logging will provide direct evidence of the base of the saturated zone to infer thickness of the saturated zone for developing shaft construction plans. Some core in the shallow holes will be used for geotechnical analysis to provide useful information in the design and construction of the shaft and appurtenances.

RESPONSES TO NEPA REVIEW REQUESTS

One well will be initially be drilled deep enough to test for the presence of deeper (natural) Dewey Lake Water perched on the cementation change from calcium carbonate to gypsum cementation (sulfate). Core obtained is for geotechnical analysis and determination of the water lens(es), as well as for description. Data from the shallow wells will be used for construction design of the shaft, in particular if water is present, to adequately design the shaft seal.

Deep Corehole Drilling

The deep corehole, drilled from the surface to a total depth of approximately 2,350 feet below the surface provides data on geologic formations that will be encountered during shaft construction. After drilling, the corehole will be plugged and abandoned according to applicable permit stipulations.

Cultural and Historic Resources

How compliance is controlled: The land management program provides for management and oversight of WIPP lands under the jurisdiction of the DOE and lands used for WIPP activities outside of the WIPP boundary. It provides protocols that are used for the management and oversight of wildlife practices, cultural resources, grazing, recreation, energy and mineral resources, lands/realty, reclamation, security, industrial safety, emergency management, maintenance, and work control on these lands.

Question:

CUL-1 Describe any notable new information relative to cultural and historic properties on or around the WIPP site (identified since 2009) that could have a bearing on potential environmental impacts.

No archaeological investigations were required to support the WIPP facility in 2010, 2011, 2012, 2013, 2014, 2015, or 2016.

Noise

How compliance is controlled: An evaluation of the environmental noise level of the WIPP was conducted with the results published in the Final Environmental Impact Statement Waste Isolation Pilot Plant (FEIS) (DOE/EIS-0026). When changes to the WIPP facility are suggested, an environmental impact review is conducted in accordance with the National Environmental Policy Act (NEPA), which includes a review of noise generation. This identification of the need to conduct NEPA analysis is managed through MOC implementing procedures.

Questions:

NOI-1 Identify any new notable sources of noise at WIPP compared to operations prior to February 2014.

As a result of the February 14, 2014, event, a NEPA regulatory analysis (including an evaluation of noise impacts) and recommendation was prepared for each of the three ventilation projects:

- Interim Ventilation System (IVS)
- Supplemental Ventilation System (SVS)
- Permanent Ventilation System(PVS)

The CBFO NEPA Compliance Officer agreed with the recommendation that the IVS was categorically excluded from preparation of further NEPA documentation and issued the categorical exclusion

RESPONSES TO NEPA REVIEW REQUESTS

determination (DOE, 2014h). CBFO provided a verbal statement that the SVS was also categorically excluded and will document that decision when the SVS project nears its start date.

The NEPA regulatory analysis and recommendation for the PVS was submitted to the CBFO by Regulatory Environmental Services, and the CBFO agreed that the impacts to human health and the environment from the construction and operation of the PVS (i.e., additional exhaust shaft, drifts, and containment filter building) was bounded by the impacts analyzed in WIPP's existing programmatic NEPA documentation. The CBFO directed that this decision be memorialized in a NEPA Supplement Analysis.

NOI-2 Are there any other new sources of noise at WIPP since the 2009 SA?

Except as noted above, no new sources of noise were constructed at the WIPP facility in 2010, 2011, 2012, 2013, 2014, or 2015. Note that the 700 series of ventilation fans that provided unfiltered air to the underground prior to February 2014, are no longer in use, thereby eliminating a significant source of noise.

NOI-3 Are there any new sensitive noise receptors (e.g., hospitals, schools, residences) in the area immediately surrounding WIPP that were not identified and evaluated previously?

There were no new receptors of noise constructed in the vicinity of the WIPP facility in 2010, 2011, 2012, 2013, 2014, 2015, or 2016.

Socioeconomics

How compliance is controlled: Evaluation of socioeconomic impacts is handled through the DOE NEPA program. The DOE NEPA regulations (10 CFR Part 1021, National Environmental Policy Act Implementing Procedures) implement the NEPA and supplement those requirements contained in 40 CFR Parts 1500 through 1508. DOE Order 451.1B, National Environmental Policy Act Compliance Program, assigns responsibilities for NEPA compliance to specified DOE organizations and individuals. DOE regulations also add a requirement for mitigation action plans and supplement analyses (SAs) and delineate specific categorical exclusions (CXs) for DOE facility operations.

The DOE regulations describe the process for preparation of DOE NEPA documents. In general, an EIS is prepared for proposed actions where the impacts of the action are likely to be significant, and a ROD is issued to announce the DOE decision and the rationale behind that decision. An EA is prepared for proposed actions where the environmental impacts of the action are not likely to be significant. An EA is followed by a finding of no significant impact (FONSI) if, after analysis, the impacts are found to be insignificant. If the analyses in an EA identify potentially significant impacts, an EIS is then prepared. RODs and EISs may contain commitments to mitigate adverse environmental impacts, which are included in mitigation action plans. Progress toward mitigation is reported annually to ensure that mitigation actions are being implemented and are effective. Supplemental analyses (SAs) examine the conclusions reached in previously prepared NEPA documents in light of changed circumstances to determine whether the impacts of the proposed actions have changed significantly and warrant additional NEPA analysis (normally an EA or a supplement to an EIS). Categorical exclusions are classes of actions that the DOE has determined do not individually or collectively have the potential for significant environmental impacts.

Questions:

SOC-1 Provide a source that identifies the changes in socioeconomic factors (population, employment) for the region surrounding WIPP.

Eddy County: <http://bber.unm.edu/eddy>

RESPONSES TO NEPA REVIEW REQUESTS

Lea County: <http://bber.unm.edu/lea>

New Mexico: <http://bber.unm.edu/new-mexico>

SOC-2 Is there any new information relative to the identification of low-income or minority populations in the region surrounding the WIPP site that was not previously evaluated

Eddy County: 12.2 percent decrease in the number of persons living in poverty between 2011 and 2014.

Lea County: 0.3 percent decrease in the number of persons living in poverty between 2011 and 2014.

New Mexico: 4.7 percent increase in the number of persons living in poverty between 2011 and 2014.

(Data from <http://bber.unm.edu/>)

SOC-3 Is there any new information relative to life-cycle costs of WIPP; especially considering the restart after the events of February 2014?

Life-cycle costs FY97-FY55 prior to February 2014 \$13,978.58 Million in (\$13,978,581,000 dollars) un-escalated, \$20,823.65 Million escalated at 2.4%

Current Life-cycle FY97-FY55 costs (as of December 2016) \$14,437.11 Million in (\$14,437,106,000 dollars) un-escalated, \$21,319.39 Million escalated at 2.4%

Transportation

How compliance is controlled: Evaluation of programmatic transportation impacts is handled through the DOE NEPA program. The DOE NEPA regulations (10 CFR Part 1021, National Environmental Policy Act Implementing Procedures) implement the NEPA and supplement those requirements contained in 40 CFR Parts 1500 through 1508. DOE Order 451.1B, National Environmental Policy Act Compliance Program, assigns responsibilities for NEPA compliance to specified DOE organizations and individuals. DOE regulations also add a requirement for mitigation action plans and supplement analyses (SAs) and delineate specific categorical exclusions (CXs) for DOE facility operations.

The DOE regulations describe the process for preparation of DOE NEPA documents. In general, an EIS is prepared for proposed actions where the impacts of the action are likely to be significant, and a ROD is issued to announce the DOE decision and the rationale behind that decision. An EA is prepared for proposed actions where the environmental impacts of the action are not likely to be significant. An EA is followed by a finding of no significant impact (FONSI) if, after analysis, the impacts are found to be insignificant. If the analyses in an EA identify potentially significant impacts, an EIS is then prepared. RODs and EISs may contain commitments to mitigate adverse environmental impacts, which are included in mitigation action plans. Progress toward mitigation is reported annually to ensure that mitigation actions are being implemented and are effective. Supplemental analyses (SAs) examine the conclusions reached in previously prepared NEPA documents in light of changed circumstances to determine whether the impacts of the proposed actions have changed significantly and warrant additional NEPA analysis (normally an EA or a supplement to an EIS). Categorical exclusions are classes of actions that the DOE has determined do not individually or collectively have the potential for significant environmental impacts.

Control over transportation activities is managed through the DOE implementation of DOE Order 460.1C, Packaging and Transportation Safety and DOE Order 460.2A, Departmental Materials Transportation and Packaging Management. These orders establish requirements for the packaging and transportation of hazardous materials, hazardous substances, and hazardous wastes. The order also establishes administrative procedures for the certification and use of radioactive and other hazardous materials packaging by the DOE. Requirements for portions of this order are addressed in

RESPONSES TO NEPA REVIEW REQUESTS

MOC transportation plan and procedures and the following safety analysis reports (SARs), and Certificate of Compliance (C of C).

Notification of shipments is managed in cooperation and agreement with state organizations (e.g., Western Governors' Association). The DOE has agreed to provide written notification of the first five shipments in a corridor 14 days in advance. Further, the DOE will provide the states with an annual notification, including six-month updates, of the shipments planned for the coming year. The states receive the eight-week rolling schedule on a weekly basis. The eight-week rolling schedule provides the detail of the annual plan. State officials designated for receipt of information (or their designees) are provided access to the DOE Transportation Tracking and Communication System (TRANSCOM).

Questions:

TR-1 Provide annual estimates (in terms of truck shipments or packages) for transportation of TRU waste to WIPP (for 2017-2022) compared to operations prior to February 2014.

Annual rate prior to 2014: 815 per year

Projected annual rate for 2017: shipments 102

Projected annual rate for 2018: shipments 34

Projected annual rate for 2019: shipments 165

Projected annual rate for 2020: shipments 98

Projected annual rate for 2021: shipments 249

Projected annual rate for 2022: shipments 420

TR-2 Have there been any notable changes in the transportation packages (e.g., TRUPACT-II or RH-72B) that would have a bearing on health and safety impacts (e.g. source terms, external dose rates)? Is there any reason to expect a change to consequences associated with transportation accidents?

The Nuclear Regulatory Commission reissuance of the Certificates of Compliance for Type B packages confirms that the packaging continues to meet the applicable requirements of 10 CFR § 71.51.

TRUPACT-II license reissued: June 12, 2014

HalfPACT license reissued: November 4, 2015

TRUPACT-III license reissued: July 21, 2015

RH 72B license reissued: June 17, 2011 (Indefinite Delay)

10-160B license reissued: None

TR-3 Are there any notable changes to the waste generator sites or routing to WIPP that would have a bearing on impacts?

The only change regarding transportation from generator sites has to do with the transportation of waste to Waste Control Specialists in Andrews, Texas, and then to the WIPP facility for disposal. This was covered in a Supplement Analysis in March 2014. The SA reached the following conclusion:

RESPONSES TO NEPA REVIEW REQUESTS

SEIS-II that could be potentially affected by the proposed activities described herein. These areas are transportation, storage at WCS, disposal at WIPP, and intentional destructive acts. Other impacts would not significantly increase as a result of the temporary storage of TRU waste pending disposal at WIPP. Although there would be slight increases in transportation impacts due to the roundtrip mileage between WIPP and WCS and population increases from 1990 to 2010, these increases would not be significant within the meaning of the CEQ and DOE regulations. Further, DOE would take all appropriate precautionary measures to ensure that public health and the environment would be protected, including careful adherence to transportation and other relevant regulations. DOE concludes that storage of the TRU waste at WCS would not increase potential impacts beyond those analyzed for the WCS facility. WCS has accumulated more than a decade of environmental monitoring data that show that no member of the public or the environment has been affected by operations at the facility, including routine and accident risks. Analysis of postulated accidents resulted in projected doses to the public at less than the regulatory limit (WCS, 2009). DOE's evaluation also concludes that the volume of TRU waste to be returned to WIPP for disposal is within the volume analyzed in the WIPP SEIS-II, and the impacts from potential destructive acts would similarly be within the parameters of the accident analyses presented in the WIPP SEIS-II.

Water Resources and Infrastructure

How compliance is controlled: Evaluation of programmatic water resources and infrastructure impacts is handled through the DOE NEPA program. The DOE NEPA regulations (10 CFR Part 1021, National Environmental Policy Act Implementing Procedures) implement the NEPA and supplement those requirements contained in 40 CFR Parts 1500 through 1508. DOE Order 451.1B, National Environmental Policy Act Compliance Program, assigns responsibilities for NEPA compliance to specified DOE organizations and individuals. DOE regulations also add a requirement for mitigation action plans and supplement analyses (SAs) and delineate specific categorical exclusions (CXs) for DOE facility operations.

The DOE regulations describe the process for preparation of DOE NEPA documents. In general, an EIS is prepared for proposed actions where the impacts of the action are likely to be significant, and a ROD is issued to announce the DOE decision and the rationale behind that decision. An EA is prepared for proposed actions where the environmental impacts of the action are not likely to be significant. An EA is followed by a finding of no significant impact (FONSI) if, after analysis, the impacts are found to be insignificant. If the analyses in an EA identify potentially significant impacts, an EIS is then prepared. RODs and EISs may contain commitments to mitigate adverse environmental impacts, which are included in mitigation action plans. Progress toward mitigation is reported annually to ensure that mitigation actions are being implemented and are effective. Supplemental analyses (SAs) examine the conclusions reached in previously prepared NEPA documents in light of changed circumstances to determine whether the impacts of the proposed actions have changed significantly and warrant additional NEPA analysis (normally an EA or a supplement to an EIS). Categorical exclusions are classes of actions that the DOE has determined do not individually or collectively have the potential for significant environmental impacts.

The WIPP Project addresses water resources and energy usage through a program that implements DOE Order 436.1 Departmental Sustainability. This order requires DOE sites establish a site sustainability plan that identifies commitments for contributing to meeting the DOE sustainability goals, integrate the site sustainability plan with operational plans, and develop and implement EMSs that are certified or conform to ISO 14001:2004 with site sustainability plan goals integrated into the EMS (ISO 14001:2004(E)).

The WIPP Site Sustainability Plan (DOE, 2015d) defines how the WIPP contributes to the DOE sustainability goals. It addresses performance and planned actions related to energy, fuel and water use,

RESPONSES TO NEPA REVIEW REQUESTS

sustainable buildings, data center and electronics management, pollution prevention, fleet management and sustainable acquisition. Site sustainability plan actions are integrated into operations through the Waste Isolation Pilot Plant Ten-Year Site Plan FY 2014 – FY 2023 (DOE, 2013d) and the EMS environmental objectives and targets.

Questions:

WAT-1 Estimate electricity and water use at WIPP once TRU waste disposal resumes compared to operations prior to February 2014.

The following table illustrates DOE energy use at the WIPP Project prior to the February 2014 incidents. DOE does not expect this trend toward lower energy use to change.

| Correlation of WIPP Energy Use | | | | | | | | | | |
|--------------------------------|---------------------|-------------------------|---------------------------|--------------------------|-----------------------------|----------------------|-------------------|-------------|-----------|-----------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Fiscal Year | Intensity Reduction | Bldg Energy BTU/sqft(3) | Building Energy BTU 10(9) | Process Energy BTU 10(9) | Total Site Energy BTU 10(9) | Total KWH Energy Use | Site Costs Energy | Total Cost | Shipments | Waste Emplaced Cubic Meters |
| 1999 | | 240 | 22 | 42.6 | 64.61 | 18,931,200 | .037/kwh | \$710,614 | 32 | 266.32 |
| 2000 | | 139 | 25.1 | 48 | 73.15 | 21,441,000 | .037/kwh | \$797,865 | 58 | 351.75 |
| 2001 | | 122 | 19.8 | 47 | 66.85 | 19,594,235 | .047/kwh | \$938,179 | 304 | 1,964.93 |
| 2002 | | 117 | 20.8 | 47.3 | 67.38 | 19,749,189 | .040/kwh | \$795,318 | 861 | 5,134.45 |
| 2003 | Base | 126.2 | 21.9 | 49.5 | 71.4 | 20,928,382 | .041/kwh | \$851,180 | 799 | 7,541.65 |
| 2004 | 7% | 118.2 | 20.5 | 44.2 | 64.7 | 18,981,172 | .050/kwh | \$955,162 | 964 | 8,810.25 |
| 2005 | 5% | 120.6 | 20.9 | 46.9 | 67.84 | 19,883,982 | .052/kwh | \$1,039,361 | 941 | 7,656.68 |
| 2006 | 13% | 109.6 | 19 | 50.3 | 69.33 | 20,322,377 | .063/kwh | \$1,298,910 | 1128 | 10,556.24 |
| 2007 | 13% | 110 | 19.1 | 52.5 | 71.6 | 20,991,941 | .055/kwh | \$1,167,463 | 1019 | 8,548.58 |
| 2008 | 14% | 108.2 | 18.8 | 53.1 | 71.95 | 21,088,275 | .067/kwh | \$1,428,320 | 797 | 5,944.37 |
| 2009 | 19% | 102 | 18.1 | 49.7 | 67.8 | 19,970,391 | .054/kwh | \$1,088,112 | 953 | 6,175.44 |
| 2010 | 14% | 109 | 19.3 | 52.2 | 71.5 | 20,977,136 | .049/kwh | \$1,038,121 | 1102 | 7,601.12 |
| 2011 | 13% | 110 | 19.1 | 49.8 | 68.9 | 20,312,328 | .050/kwh | \$1,021,997 | 939 | 7,266.74 |
| 2012 | 23% | 98 | 16.9 | 51.2 | 68.2 | 19,986,235 | .040/kwh | \$793,539 | 839 | 5,701.01 |
| 2013 | 37.9% | 78.4 | 15 | 48.1 | 63.1 | 18,546,019 | .048/kwh | \$884,584 | 734 | 4,854.02 |
| 2014 | 42.4% | 72.6 | 13.9 | 36.9 | 50.8 | 14,894,466 | .054/kwh | \$810,033 | 261 | 2,114.97 |
| | | | | | | 316,598,328 | | | Total: | 90,488.52 |

WAT-2 Describe any notable changes in utilities (e.g., electricity, water, telecommunications) or infrastructure (e.g., roads) that were not evaluated previously?

There are no notable changes in utilities or infrastructure made recently that were not evaluated. In 2009, the DOE joined the BLM in issuing an Environmental Analysis for reconstruction of the South Access Road. The EA resulted in a finding of no significant impact. More recently, Verizon wireless sought to construct a cell tower to provide improved cell coverage to the WIPP facility and DOE authorized the construction of a new meteorological station at the location of an existing met station at the Far Field radiological monitoring site. A new Permanent Ventilation System (PVS) project is underway and is being evaluated under NEPA per DOE orders.

Visual

How compliance is controlled: Evaluation visual impacts is handled through the DOE NEPA program. The DOE NEPA regulations (10 CFR Part 1021, National Environmental Policy Act Implementing Procedures) implement the NEPA and supplement those requirements contained in 40 CFR Parts 1500 through 1508. DOE Order 451.1B, National Environmental Policy Act Compliance Program, assigns responsibilities for NEPA compliance to specified DOE organizations and individuals. DOE regulations also add a requirement for mitigation action plans and supplement analyses (SAs) and delineate specific categorical exclusions (CXs) for DOE facility operations.

RESPONSES TO NEPA REVIEW REQUESTS

The DOE regulations describe the process for preparation of DOE NEPA documents. In general, an EIS is prepared for proposed actions where the impacts of the action are likely to be significant, and a ROD is issued to announce the DOE decision and the rationale behind that decision. An EA is prepared for proposed actions where the environmental impacts of the action are not likely to be significant. An EA is followed by a finding of no significant impact (FONSI) if, after analysis, the impacts are found to be insignificant. If the analyses in an EA identify potentially significant impacts, an EIS is then prepared. RODs and EISs may contain commitments to mitigate adverse environmental impacts, which are included in mitigation action plans. Progress toward mitigation is reported annually to ensure that mitigation actions are being implemented and are effective. Supplemental analyses (SAs) examine the conclusions reached in previously prepared NEPA documents in light of changed circumstances to determine whether the impacts of the proposed actions have changed significantly and warrant additional NEPA analysis (normally an EA or a supplement to an EIS). Categorical exclusions are classes of actions that the DOE has determined do not individually or collectively have the potential for significant environmental impacts.

Questions:

VIS-1 Describe any notable visual changes at WIPP compared to the site prior to February 2014.

There have been no visual changes to the WIPP facility as since February 2014 except for the construction of the IVS which resulted in the addition of ductwork and skid-mounted HEPA filtration units on the east side of the property protection area. The CBFO NEPA Compliance Officer agreed with the recommendation that the IVS was categorically excluded from preparation of further NEPA documentation and issued the categorical exclusion determination. (see DOE, 2014, U.S. Department of Energy Categorical Exclusion Determination Form for installation of an upgrade to the Waste Isolation Pilot Plant ventilation exhaust system, November 2014.)

Waste Management

How compliance is controlled: Waste management is performed in accordance with WIPP Project standard operating procedures and processes. Waste management practices and changes are evaluated for conformance to several laws and resulting regulations and orders as follows:

Transuranic radioactive mixed waste—hazardous waste portion: Section 74-4-4.E of the New Mexico Hazardous Waste Act (HWA) and the Resource Conservation and Recovery Act (RCRA)

Transuranic radioactive mixed waste—radioactive waste portion: DOE Order 435.1, Change 1, Radioactive Waste Management

Transuranic radioactive mixed waste—PCB waste portion: Toxic Substances Control Act (40 CFR Part 761, Subpart D)

Non-transuranic radioactive waste: DOE Order 435.1, Change 1, Radioactive Waste Management

Solid Waste (medical and special waste): New Mexico Solid Waste Act (applicable subsections of 74-9-1 through 74-9-43 NMSA)

There have been no changes in the WIPP Mission with regard to the type and quantity of waste to be managed at the facility. Such changes would be subjected to appropriate NEPA evaluation.

Questions:

WM-1 Identify the types and quantities of wastes generated from recovery actions.

RESPONSES TO NEPA REVIEW REQUESTS

Low level waste: 735 cubic meters

TRU waste identified by applying the derived waste rule in the Permit (including HEPA filters, contaminated personal protective equipment, and abandoned underground operations equipment: 20.7 cubic meters (HEPA filters)

Solid waste: 8.38 cubic meters (mostly soot cleanup waste)

WM-2 Estimate any changes in TRU waste quantities to be disposed of in WIPP compared to operations prior to February 2014.

There have been no revised estimates of TRU waste quantities since those considered in SEIS-II. Quantities of TRU waste contaminated with PCBs have been revised. These estimates are listed below:

| | |
|---|-----------------------|
| Total emplaced PCB TRU mixed waste volume from WDS, 07/09/13: | 4,691 m ³ |
| Projected PCB TRU Mixed Waste volume from approved waste streams: | 5,138 m ³ |
| Projected PCB Volume (m3) For Future Waste Streams: | 280 m ³ |
| Total | 10,109 m ³ |

Human Health

How compliance is controlled: Exposure to harmful chemicals and radioactivity is controlled through MOC operating procedures in accordance with the following:

DOE Order 151.1C, Comprehensive Emergency Management System: This order establishes requirements for emergency planning, categorization, classification, preparedness, response, notification, public protection, and readiness assurance activities. The applicable requirements of this order are implemented through the WIPP emergency management program, the emergency response program, the training program, the emergency readiness program, and the records management program.

DOE Order 420.1C, Facility Safety: This order specifies requirements for nuclear safety, criticality safety, fire protection, and natural phenomena hazards mitigation. Site emergency plans, fire hazards analyses, and the Waste Isolation Pilot Plant Documented Safety Analysis (DSA) incorporate response capabilities established by the baseline needs assessment for the emergency response organization. The requirements are implemented through the Waste Isolation Pilot Plant Fire Hazard Analysis for the Waste Isolation Pilot Plant and the DSA.

DOE Order 435.1, Change 1, Radioactive Waste Management: The objective of this order is to ensure that DOE radioactive waste is managed in a manner that is protective of workers, public health and safety, and the environment. The applicable portions of this order are implemented through NWP low-level and mixed low-level waste management procedures, waste handling procedures, and by engineering design of the WHB and equipment, and the underground panel and room configurations.

DOE Order 458.1, Change 3, Radiation Protection of the Public and the Environment: This order establishes standards and requirements for operations of the DOE and its contractors with respect to protecting members of the public and the environment against undue risk from radiation. Activities and analyses describing compliance with the applicable requirements of this order are cited in the DSA. Monitoring activities to document compliance with the Order are implemented through the WIPP ALARA (as low as reasonably achievable) program, the environmental monitoring program, the records management program, the radiation safety program, and health physics and radiological engineering

RESPONSES TO NEPA REVIEW REQUESTS

procedures. Since the 2014 radiological event, the WIPP underground continues to operate in filtration mode, which effectively removes respirable particulate from the effluent air stream.

10 CFR Part 830, Nuclear Safety Management: The MOC has implemented the requirements of 10 CFR § 830 by using DOE-STD-3009 to develop the DSA. Supplemental guidance specific to TRU waste processing facilities, given in DOE-STD-5506-2007, Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities (DOE, 2007), was also used to develop the DSA. The substantial DSA update specifically affected ground control activities and the Waste Acceptance Criteria (WAC) for WIPP-acceptable waste. The WIPP Waste Acceptance Criteria updates include two new appendices and new key attributes from Chapter 18 of the DSA.

Questions:

H&S-1 Estimate any workforce changes at WIPP compared to operations prior to February 2014.

Workforce prior to February 2014: NWP 648, NWP contractors 153, CBFO 48, SNL 48, LANL 47, CTAC 35

Workforce as of December 2016: NWP 795, NWP contractors 81, CBFO 60, SNL 51, LANL 50, CTAC 45

H&S-2 Will number of radiological workers change compared to operations prior to February 2014? If so, explain.

Radiological workers before February 2014: 32

Radiological workers as of December 2016: 34

Reason for the change in the number of radiological workers is as follows: This is not a significant change

H&S-3 Describe any changes in worker operations (e.g., PPE, additional monitoring, etc.)

The Underground is now segregated into four control areas for radiological protection as follows:

Controlled Areas

- No restrictions

Radiological Buffer Area

- Radiological buffer areas are areas between contaminated areas and uncontaminated areas which DOE recommends be established to prevent and control the spread of radioactive contamination and to protect personnel from radiation exposure
- Rad Worker I training required
- No entry requirements other than reading and obeying all posted signage
- Hand and foot monitoring required prior to exit

Contamination Area

- Rad Worker II training required
- Radiological work permit required for entry
- Respiratory protection in airborne radioactivity areas
- Dosimeters shall be worn with protective clothing

RESPONSES TO NEPA REVIEW REQUESTS

- Whole body frisk prior to exit after doffing protective clothing

High Contamination Area

- Rad Worker II training required
- Radiological work permit required for entry
- Respiratory protection in airborne radioactivity areas
- Dosimeters shall be worn with protective clothing
- Whole body frisk prior to exit after doffing protective clothing

H&S-4 Estimate any changes in worker dose (average, MEI, and collective) compared to operations prior to February 2014.

Average worker doses prior to February 2014 (annual average for 2013): Average < 1 mrem, MEI < 1 mrem, collective 0.564 person-rem for a population of 712 persons

Average worker doses since February 2014 (annual average for 2015): Average < 1 mrem MEI < 1 mrem, collective 0.161 person-rem for a population of 631 persons

H&S-5 Will radiological emissions from WIPP change compared to operations prior to February 2014? If so, explain.

The following is the estimate of whole body dose to the hypothetical MEI residing at the WIPP Exclusive Use Area fenceline as measured by the WIPP facility effluent monitoring program. It shows that after an increase in 2014, the dose returns to less than previous levels indicating the effect of ongoing filtration. Future emissions are expected to be similar.

| | | |
|-----------|----------------------------------|----------|
| Year 2009 | Dose to Whole Body millirem/year | 1.71E-03 |
| Year 2010 | Dose to Whole Body millirem/year | 1.31E-03 |
| Year 2011 | Dose to Whole Body millirem/year | 1.29E-03 |
| Year 2012 | Dose to Whole Body millirem/year | 7.55E-04 |
| Year 2013 | Dose to Whole Body millirem/year | 5.25E-04 |
| Year 2014 | Dose to Whole Body millirem/year | 2.38E-01 |
| Year 2015 | Dose to Whole Body millirem/year | 4.12E-04 |

H&S-6 Are there estimates of worker dose (MEI and collective) from the incidents in 2014?

Worker dose estimates as the result of the February 2014 incidents: MEI <1 mrem, collective: 0.034 person-rem for a population of 810 persons.

Operations

How compliance is controlled: WIPP facility operations are controlled through MOC operating procedures in accordance with the following:

DOE Order 151.1C, Comprehensive Emergency Management System: This order establishes requirements for emergency planning, categorization, classification, preparedness, response, notification, public protection, and readiness assurance activities. The applicable requirements of this order are implemented through the WIPP emergency management program, the emergency response program, the training program, the emergency readiness program, and the records management program.

RESPONSES TO NEPA REVIEW REQUESTS

DOE Order 420.1C, Facility Safety: This order specifies requirements for nuclear safety, criticality safety, fire protection, and natural phenomena hazards mitigation. Site emergency plans, fire hazards analyses, and the Waste Isolation Pilot Plant Documented Safety Analysis (DSA) incorporate response capabilities established by the baseline needs assessment for the emergency response organization. The requirements are implemented through the Waste Isolation Pilot Plant Fire Hazard Analysis for the Waste Isolation Pilot Plant and the DSA.

DOE Order 435.1, Change 1, Radioactive Waste Management: The objective of this order is to ensure that DOE radioactive waste is managed in a manner that is protective of workers, public health and safety, and the environment. The applicable portions of this order are implemented through NWP low-level and mixed low-level waste management procedures, waste handling procedures, and by engineering design of the WHB and equipment, and the underground panel and room configurations.

DOE Order 458.1, Change 3, Radiation Protection of the Public and the Environment: This order establishes standards and requirements for operations of the DOE and its contractors with respect to protecting members of the public and the environment against undue risk from radiation. Activities and analyses describing compliance with the applicable requirements of this order are cited in the DSA. Monitoring activities to document compliance with the Order are implemented through the WIPP ALARA (as low as reasonably achievable) program, the environmental monitoring program, the records management program, the radiation safety program, and health physics and radiological engineering procedures. Since the 2014 radiological event, the WIPP underground continues to operate in filtration mode, which effectively removes respirable particulate from the effluent air stream.

10 CFR Part 830, Nuclear Safety Management: The MOC has implemented the requirements of 10 CFR § 830 by using DOE-STD-3009 to develop the DSA. Supplemental guidance specific to TRU waste processing facilities, given in DOE-STD-5506-2007, Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities (DOE, 2007), was also used to develop the DSA. The substantial DSA update specifically affected ground control activities and the Waste Acceptance Criteria (WAC) for WIPP-acceptable waste. The WIPP Waste Acceptance Criteria updates include two new appendices and new key attributes from Chapter 18 of the DSA.

Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §§6901, et seq.) and the New Mexico Hazardous Waste Act (New Mexico Statutes Annotated [NMSA] §§74-4-1, et seq., 1978): The WIPP Permit (renewal) became effective December 30, 2010. The Permit authorizes the to receive, store, and dispose of CH and RH TRU mixed waste at the WIPP facility. Two storage units (the parking area container storage unit and the Waste Handling Building container storage unit) are permitted for storage of TRU mixed waste. Eight underground hazardous waste disposal units are currently permitted for the disposal of CH and RH TRU mixed waste. The Permit cover operations, training, contingency planning, recordkeeping, reporting, monitoring, preparedness and protection, and closure and establishes conditions relative to each.

Toxic Substances Control Act and the applicable parts of 40 CFR Part 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions: On May 15, 2003, EPA Region VI approved the disposal of waste containing PCBs at the WIPP facility. The WIPP facility began receiving PCB-contaminated waste on February 5, 2005. The EPA renewed the disposal authority for a five-year period on April 30, 2008, and again renewed the authority for a five-year period on May 21, 2013. The EPA permit, referred to as the Conditions of Approval mirror the conditions in the hazardous waste Permit.

The WIPP Land Withdrawal Act (LWA) requires the EPA to certify the DOE demonstration of compliance to the 40 CFR 191 Subparts B and C standards is adequate. This was done in 1998. In

RESPONSES TO NEPA REVIEW REQUESTS

addition, the EPA is directed to conduct recertification of continued compliance every five years after the initial receipt of TRU waste for disposal until the end of the decommissioning phase. The latest Compliance Recertification Application for the WIPP Project was submitted to the EPA in March 2014. The regulations do not cover the operations of the WIPP facility, although the certification requires that the DOE track certain waste parameters and radionuclide inventories to assure the repository conforms to the assumptions used in the certification application.

New Mexico Water Quality Act and 20.6.2 NMAC, Ground and Surface Water Protection: The WIPP facility does not discharge to surface water, but does have a discharge permit (DP) designed to prevent impacts to groundwater. The DOE was issued DP-831 from the NMED Groundwater Quality Bureau for the operation of the WIPP sewage treatment facility in January 1992. The DP was renewed and modified to include the H-19 Evaporation Pond in July 1997. The H-19 Evaporation Pond is used for the treatment of wastewater generated during groundwater monitoring activities, water removed from sumps in the underground, and condensation from duct work in the mine ventilation system. The DP was modified in December 2003 to incorporate infiltration controls for salt-contact storm water runoff and in December 2006 to provide a more detailed closure plan. The DP was renewed on September 9, 2008. The DP was again modified on April 5, 2010, to include an additional evaporation pond to contain storm water running off the salt pile. An application for the 5-year renewal of the DP was submitted to the NMED Groundwater Quality Bureau on May 9, 2013. The new DP was received on August 1, 2014. The DP contains certain operational conditions including monitoring, recordkeeping and reporting.

Questions:

OPS-1 Summarize any physical operational safety improvements that: (a) have already been implemented, and (b) are expected to be implemented within the reasonably foreseeable future. We are most interested in understanding the physical changes that have been made to things like the continuous air monitoring (CAM) system, protective fire barriers, barriers to contain contamination, fire suppression system, fire water supply and distribution system.

The WIPP Recovery Plan identified three Safety Management Programs—emergency management, fire protection, and radiological readiness and safety—as key to existing recovery activities as well as resumption of waste emplacement activities:

- Emergency Management
- Fire Protection
- Radiological Readiness and Safety

• **Emergency Management**—The Emergency Management Program has been enhanced to improve response to site incidents and emergencies.

- The program has been restructured to align with current and changing needs in accordance with the National Incident Management System and the Incident Command System.
 - The restructuring includes updates to the emergency management policies, plans, and procedures, as well as changes to equipment and facilities.
- Training, drills and validation exercises are being conducted.
- The program was verified to align with DOE requirements and the revised Documented Safety Analysis.

• **Fire Protection**—The Fire Protection Program has been enhanced to include

RESPONSES TO NEPA REVIEW REQUESTS

- Upgraded underground fire protection equipment including onboard automatic fire suppression systems on applicable diesel fueled vehicles
- Better controls on combustible loading in the underground
- Improved scheduling of maintenance to manage fire protection controls
- New fire protection equipment including new emergency response vehicles both on the surface and in the underground
- Changes to the engineering review of fire loading and maintenance regime
- Inclusion of greater probability of fires in the safety analysis.

• **Radiological Readiness and Safety**—A comprehensive program has been completed to examine aspects of the Radiological Control Program and to address the need to operate in both an uncontaminated and a contaminated environment.

- The program complies with 10 CFR Part 835, Occupational Radiation Protection, and DOE-STD-1128-2008, *Good Practices for Occupational Radiation Protection in Plutonium Facilities*.
- Trained radiation control personnel from other sites have been brought to the WIPP facility to augment the staff, mentor personnel, and provide support to new radiological activities. These personnel have since returned to their home sites.
- Procedures have been updated, training and drills are conducted on the new procedures and processes.
- Radiological postings in the underground assure separation of contaminated areas and work activities from clean areas.
- Continued operation in filtration mode.
- Deployment of upgraded CAMs in the underground.
- Increased training for individuals seeking to access contaminated areas in the underground.

OPS-2 Summarize the status of all permits required to resume TRU waste disposal operations.

| Granting Agency | Type of Permit | Permit Number | Granted/Submitted | Expiration | Current Permit Status |
|---|---|---|-------------------|------------|-----------------------|
| New Mexico Environment Department | Hazardous Waste Facility Permit | NM4890139088–TSDF | 12/30/10 | 12/30/20 | Active |
| New Mexico Environment Department Groundwater Quality Bureau | Discharge Permit | DP–831 | 7/29/14 | 7/29/19 | Active |
| New Mexico Environment Department Air Quality Bureau | Operating Permit for Two Backup Diesel Generators | 310–M–2 | 12/07/93 | None | Active |
| New Mexico Environment Department Petroleum Storage Tank Bureau | Storage Tank Registration Certificate | Registration Number 2121 Facility Number 31539 | 7/1/16 | 6/30/17 | Active |

RESPONSES TO NEPA REVIEW REQUESTS

| | | | | | |
|---|---|----------------------|-----------|------------|--------|
| U.S. Environmental Protection Agency Region 6 | Conditions of Approval for Disposal of PCB/TRU and PCB/TRU Mixed Waste at the US Department of Energy (DOE) Waste Isolation Pilot Plant (WIPP) Carlsbad, New Mexico | N/A | 5/21/2013 | 4/30/2018 | Active |
| U.S. Fish and Wildlife Service | Special Purpose – Relocate | MB155189-0 | 2/20/14 | 04/30/2017 | Active |
| New Mexico Department of Game and Fish | Biotic Collection Permit | Authorization # 3293 | 01/26/14 | 12/31/16 | Active |

The New Mexico Environment Department recently conducted an inspection of the recovered WIPP facility in order to determine that Administrative Orders issued in 2014 can be closed out and resumption of operations can be authorized. Authorization is expected about December 21, 2016.

OPS-3 Summarize the status of decontamination operations that: (a) have already occurred, and (b) are expected to occur within the reasonably foreseeable future.

DOE and Nuclear Waste Partnership LLC completed radiological risk reduction activities in select portions of the WIPP underground in the pathway leading to and in Panel 7. Mitigation activities included the application of a fine water mist to the roof, walls, and floor. As the mist evaporates, the salt recrystallizes, encapsulating the contamination that was on the surface. In addition, brattice cloth and a layer of previously-mined salt were laid along contaminated portions of the floor to trap any contamination and to provide a durable surface for vehicle traffic. These radiological risk mitigation techniques help prevent the resuspension of surface contamination and allow for a reduction in the level of radiological controls necessary to protect workers.

As a result of radiological risk mitigation efforts by WIPP Radiological Control teams, requirements for respiratory protection were lifted for a significant portion of the WIPP underground. The change in respiratory protection requirements applies to all areas south of S-2520 where VOC levels are not elevated. This change represents a significant milestone in radiological contamination mitigation efforts. In areas where VOC levels exceed 5 parts per million, respirators are required for access. In areas south of S-2520 where respirators are not required, the use of protective clothing, booties, and gloves remains necessary. Eliminating the need for air purifying respirators reduces physical stress on workers and makes performance of work activities easier and safer. Panel closure designs, such as the WPC, that minimize mine surface disturbance such as excavation, milling, roof support, and salt haulage are desirable.

The Underground is now segregated into four control areas for radiological protection as follows:

Controlled Areas

- No restrictions

RESPONSES TO NEPA REVIEW REQUESTS

Radiological Buffer Area

- Radiological buffer areas are areas between contaminated areas and uncontaminated areas which DOE recommends be established to prevent and control the spread of radioactive contamination and to protect personnel from radiation exposure
- Rad Worker I training required
- No entry requirements other than reading and obeying all posted signage
- Hand and foot monitoring required prior to exit

Contamination Area

- Rad Worker II training required
- Radiological work permit required for entry
- Respiratory protection in airborne radioactivity areas
- Dosimeters shall be worn with protective clothing
- Whole body frisk prior to exit after doffing protective clothing

High Contamination Area

- Rad Worker II training required
- Radiological work permit required for entry
- Respiratory protection in airborne radioactivity areas
- Dosimeters shall be worn with protective clothing
- Whole body frisk prior to exit after doffing protective clothing

OPS-4 *Once TRU waste disposal operations resume, what will be the first wastes to be disposed of (i.e., will the 144 waste containers, with a volume of 129 cubic meters, currently in the Waste Handling Building, be first?). What is the disposal plan for the TRU wastes (specifically, the 73 standard waste boxes containing waste from the same waste stream as the breached container) currently stored at Waste Control Specialists?*

Waste in the Waste Handling Building must be removed from storage by June 30, 2017. For the waste containers stored in the Waste Handling Building, the first two waste streams designated for disposal are SR-221H-PUOX and ID-RF-S3114. Therefore, these will be given priority for emplacement. However, they must conform to the conditions in Chapter 18 of the DSA and be authorized by CBFO before they can be emplaced.

There are 116 SWBs at WCS that are available for shipment once they meet all the requirements on the WIPP Waste Acceptance Criteria. These will be shipped under the existing SA: Supplement Analysis for a Proposal to Temporarily Store Defense Transuranic Waste prior to Disposal at the Waste Isolation Pilot Plant, DOE/EIS-0026-SA-09.

120 drums at WCS are not available due to having hazardous waste codes D001 or D002.