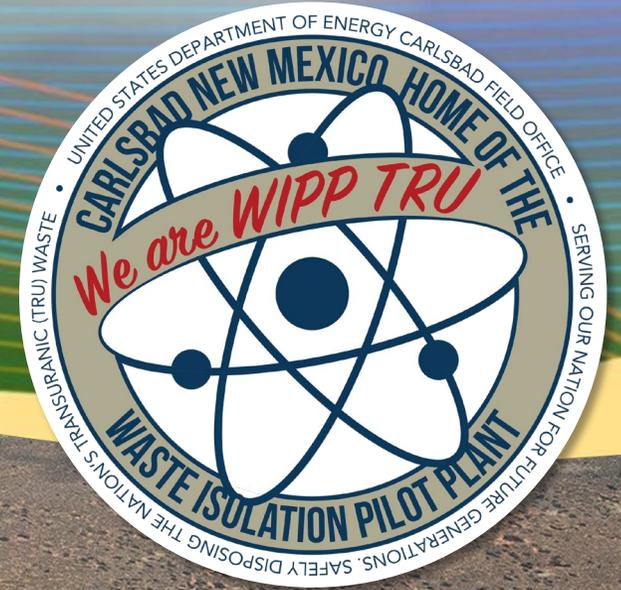




U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**



August 5, 2022

Radioactive and Hazardous Materials Committee

Carlsbad Field Office/Waste Isolation Pilot Plant

Reinhard Knerr, Manager
U.S. DOE, Carlsbad Field Office

- WIPP is America's only deep geologic repository for the permanent disposal of defense-generated transuranic (TRU) radioactive waste
- WIPP has been receiving waste since 1999 and has a proven track record for safe and compliant transport and emplacement of TRU waste
- WIPP's disposal limits are based on the Congressionally approved Land Withdrawal Act which authorizes disposal of 175,564 m³ of TRU waste
- All TRU waste coming to WIPP must be fully characterized and certified to meet the WIPP Waste Acceptance Criteria



- Shipments to date in FY22: **190**
- Loaded miles in FY22: **207,400**
- Total shipments received: **13,161**
- Total loaded miles traveled: **15,731,746**
- Total CH waste containers emplaced: **265,914**
- Total RH waste canisters emplaced: **719**
- Shielded containers emplaced: **56** (included in total RH)

As of 07/29/2022



WIPP Land Withdrawal Act (Public Law 102-579) allows for 175,564 cubic meters of TRU waste to be disposed at the WIPP facility

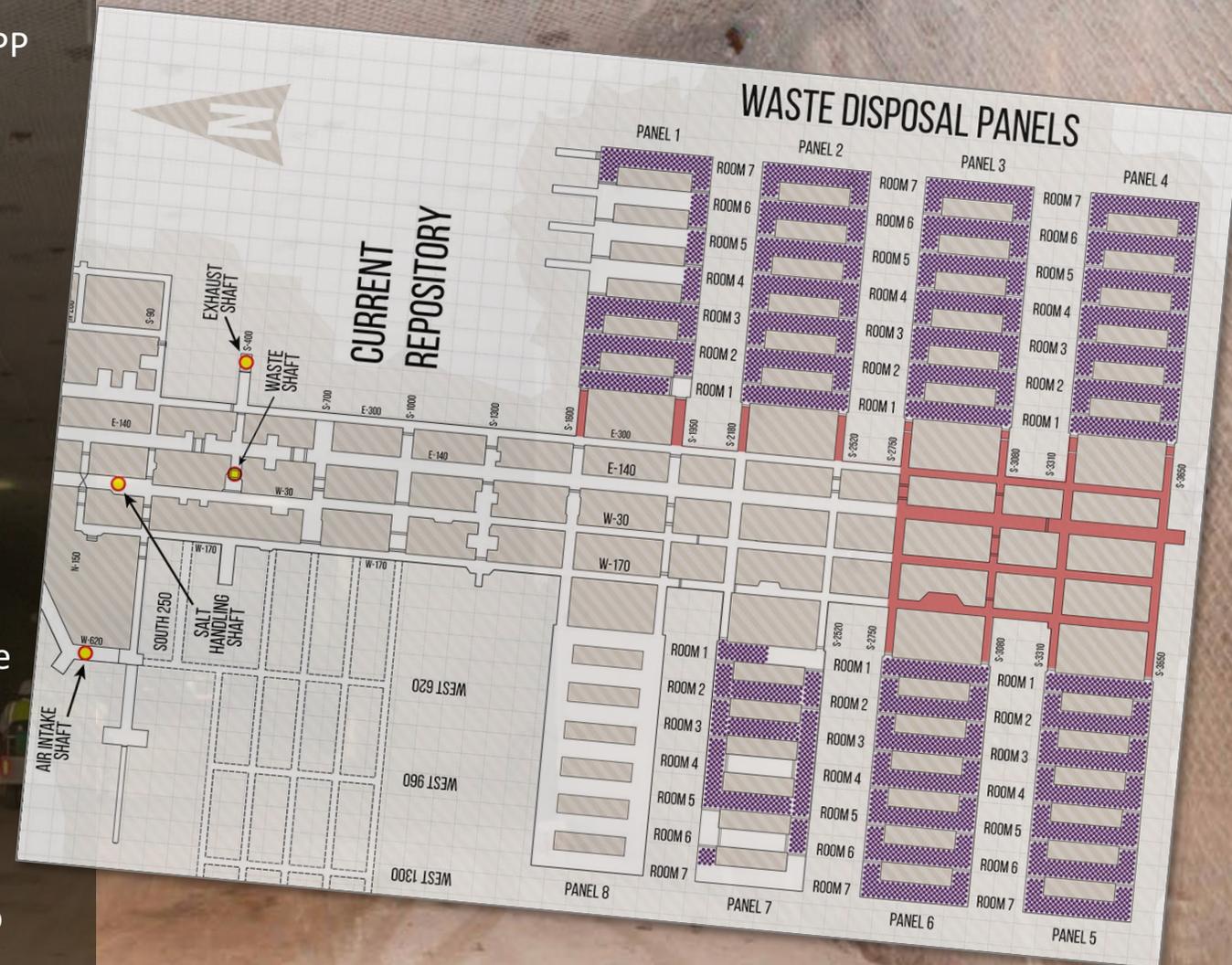
- Panels 1 – 6 have been filled and closed
- Waste is currently being emplaced in the last available room in Panel 7
- Mining and outfitting of Panel 8 is complete and certification is underway

Approximately 40.7% of WIPP LWA total TRU waste volume emplaced

- CH 71,158 m³
- RH 361 m³

Additional disposal panels and infrastructure investments are needed to accommodate the Congressionally authorized disposal volume in the LWA

- Replacement Panels 11 and 12
- As a result of waste packaging and emplacement inefficiencies, additional Panels will be needed to complete the WIPP mission.”



Shipments in FY 2022

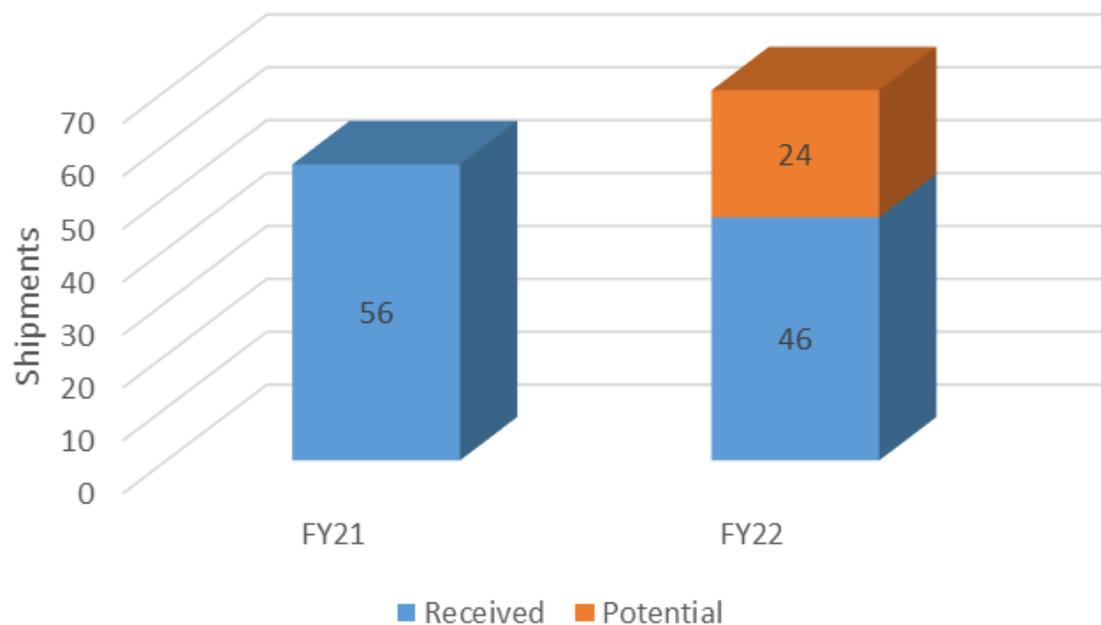
Site	Actual Shipments in FY 2021	Targeted Projected Shipments in FY 2022	Actual Shipments to Date in FY 2022
LANL	56	62	56
INL	100	190	119
ORNL	22	8	2
SRS	6	34	11
SQS (SNL, LLNL, ANL)	14	5	2
WCS	1	--	--
Total	199	299	190

* FY22 targets are based on availability of certified TRU waste for shipment

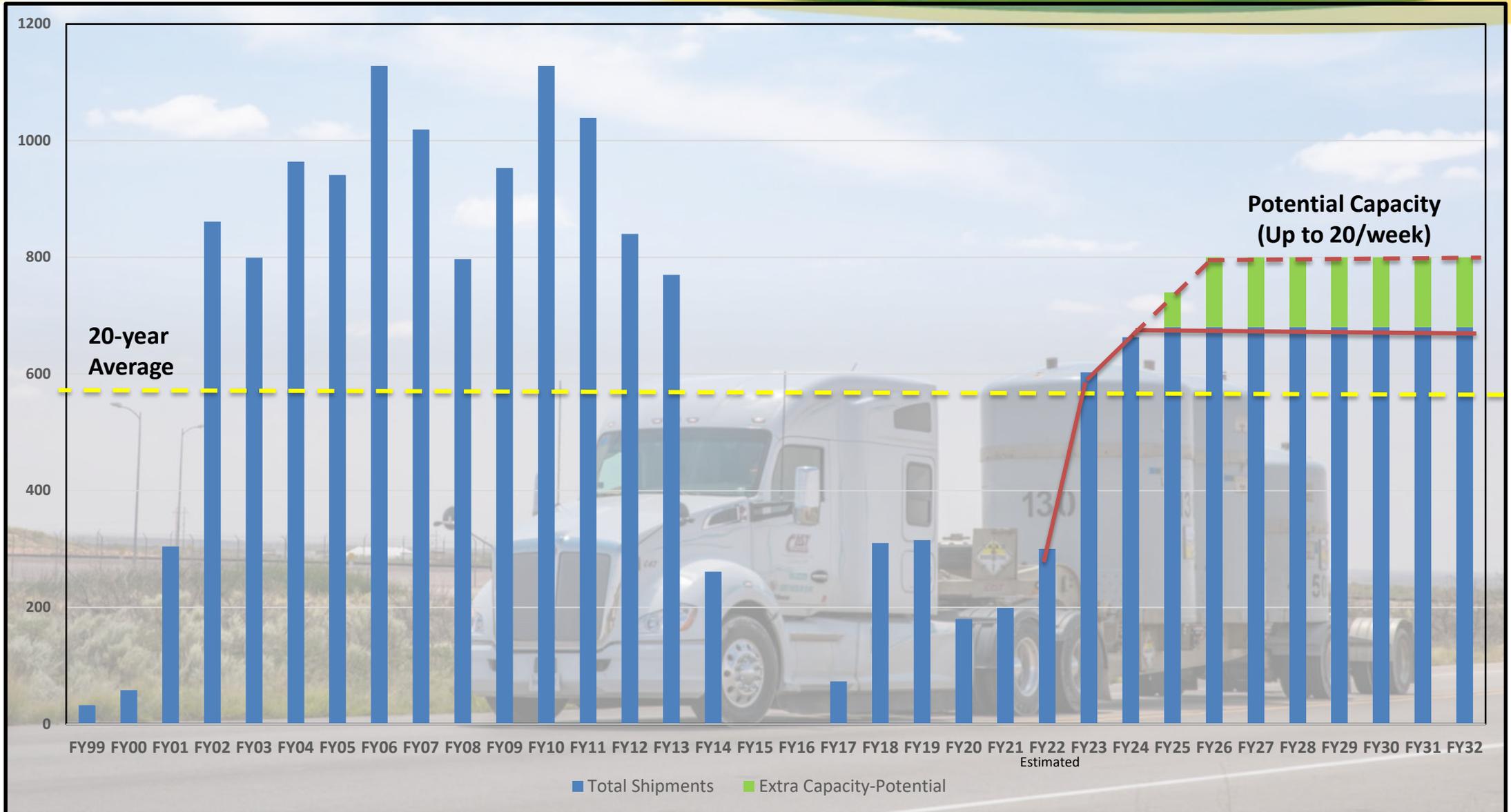


NEW MEXICO WASTE REMAINS A PRIORITY

LANL Shipments



- Shipments from Los Alamos National Laboratory (LANL) and Sandia National Laboratories (SNL) remain a top priority
- RH waste shipments from SNL will begin once all regulatory approvals for additional Shielded Container Assemblies are received
- Shipments from LANL should continue to increase as efficiencies in waste characterization and certification are realized



- The DOE Office of Environmental Management (EM) is currently using down-blending to disposition 13.1 metric tons (MT) of surplus Pu, including 6 MT previously approved and 7.1 MT of more recently approved for disposal at WIPP
- This surplus Pu from the Savannah River Site is part of the dilute and dispose program and is similar to waste previously received from the DOE Rocky Flats site
- All waste coming to WIPP must meet the site's Waste Acceptance Criteria and other applicable standards for transportation and disposal prior to being considered for disposal at WIPP
- Additional volumes of surplus plutonium are being evaluated for disposal at WIPP





Plutonium oxide (PuO_2) and Blend Can Kits are placed in a glovebox



DOE-STD-3013 containers are opened for PuO_2 blending



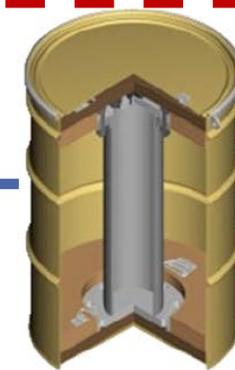
PuO_2 is added to adulterant in "blend can"



PuO_2 is blended with multicomponent adulterant



Following Characterization CCOs are loaded in TRUPACT-II for transport



DSP is loaded in Criticality Controlled Overpack (CCO) for Disposal at WIPP



DSP is packaged in Can/Bag/Can outside glovebox



ROC reduces radiation exposure for handling of Dilute Surplus Plutonium (DSP)



Lids are press-fit to close Robust Outer Container (ROC)

WIPP involvement in the process



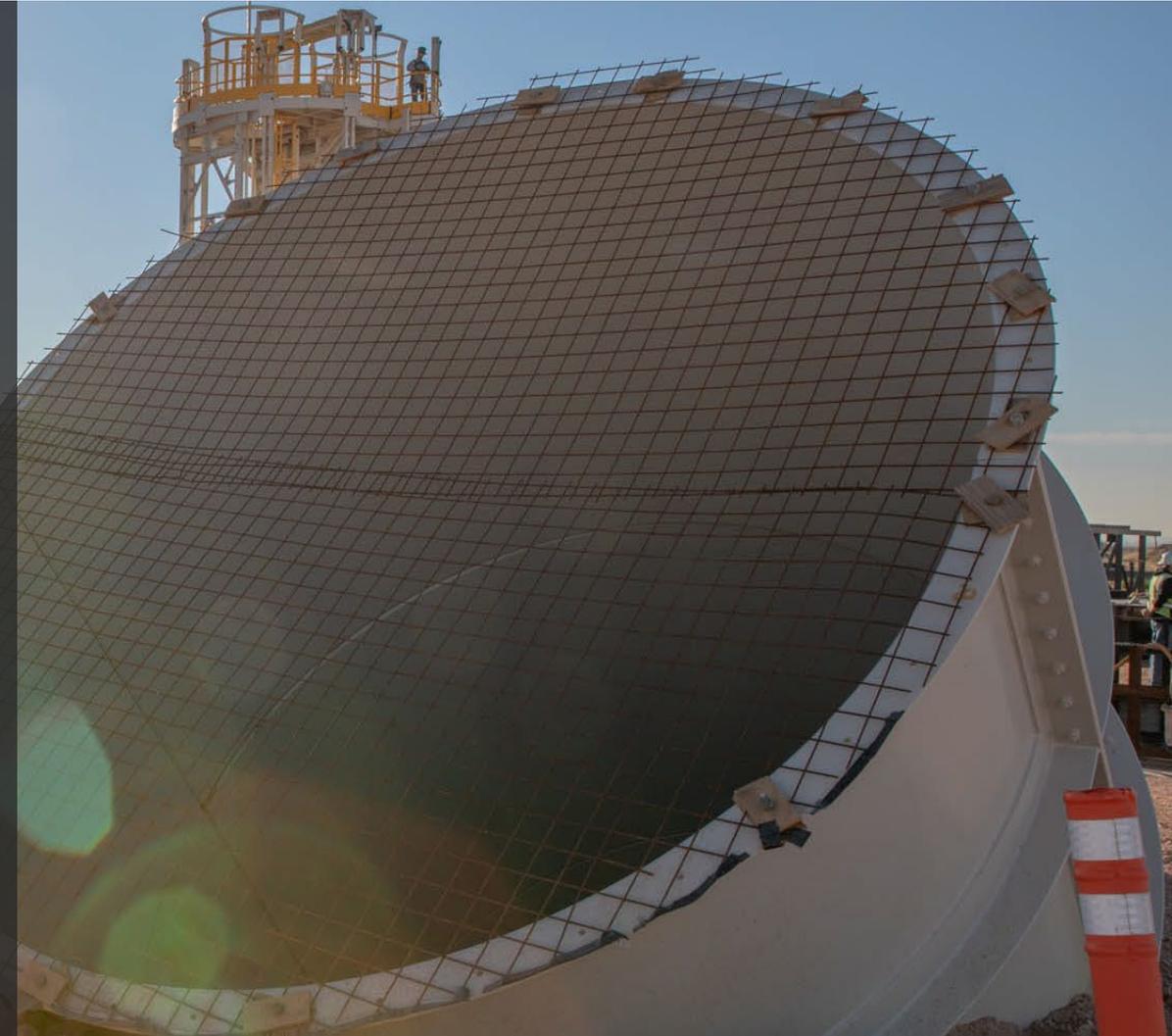
FY 2022 Regulatory Actions

Ten-year Permit Renewal Application

- December 17, 2021 – NMED consolidated the 10 Year Permit Renewal Application and Class 3 PMR for Panels 11 and 12.
- WIPP is responding to NMED Technical Incompleteness Determination (TID)
- A “draft” permit is expected to be published for public comments in August of 2022
- Public hearings are anticipated to take place in the December/January time frame

WIPP plans to submit a Class 2 PMR for new shielded containers to NMED

WIPP will also submit a Planned Change Notice to EPA for new shielded containers (NRC approvals for SCA’s has already be received)



Visit the WIPP Website at the address below for a
Virtual Tour of the WIPP site
<https://wipp.energy.gov/about-us.asp>

Questions?