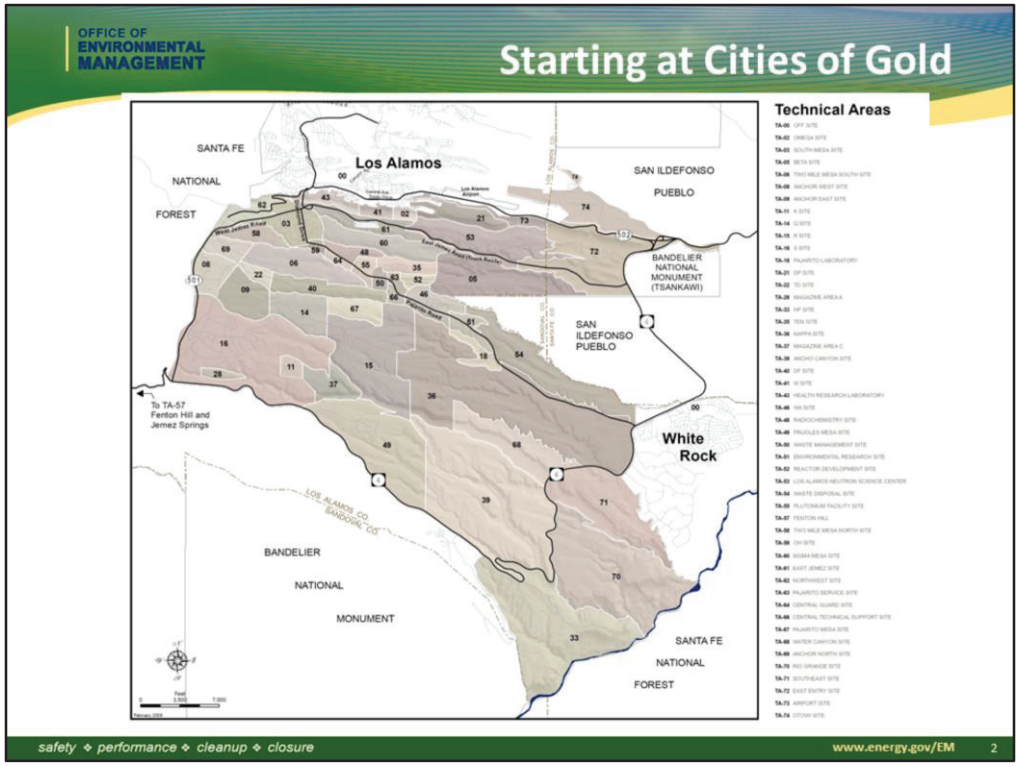
Hello everyone. This presentation was prepared for each speaker. My name is _____ and I work for the Environmental Management Los Alamos Field Office. This script ensures everyone hears the same thing.

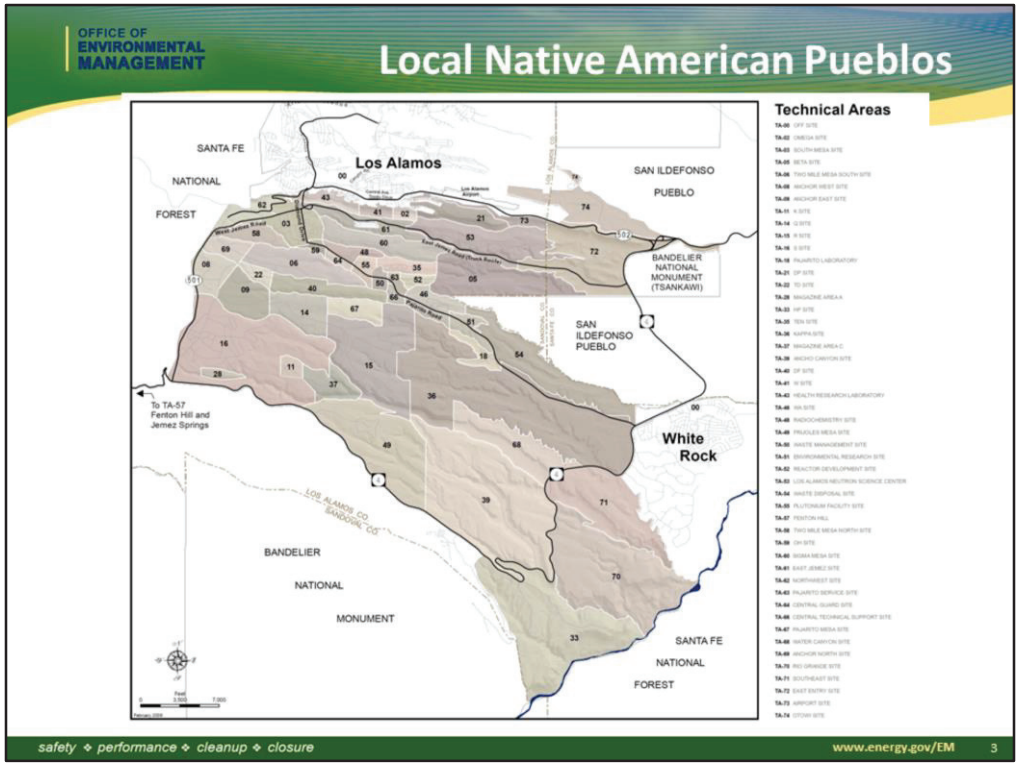
Please write your questions on one of the available index cards – they will be collected and reviewed tonight. It possible, questions will be answered at the conference tomorrow or may be posted to the procurement website. Speaker are not allowed to answer the questions on the bus so as to make sure all potential Offerors get the same information and no one bus group hears anything the other groups don't hear.

Feel free to take notes. We want you to get as much information as you possibly can to ensure we get the best feedback from you.

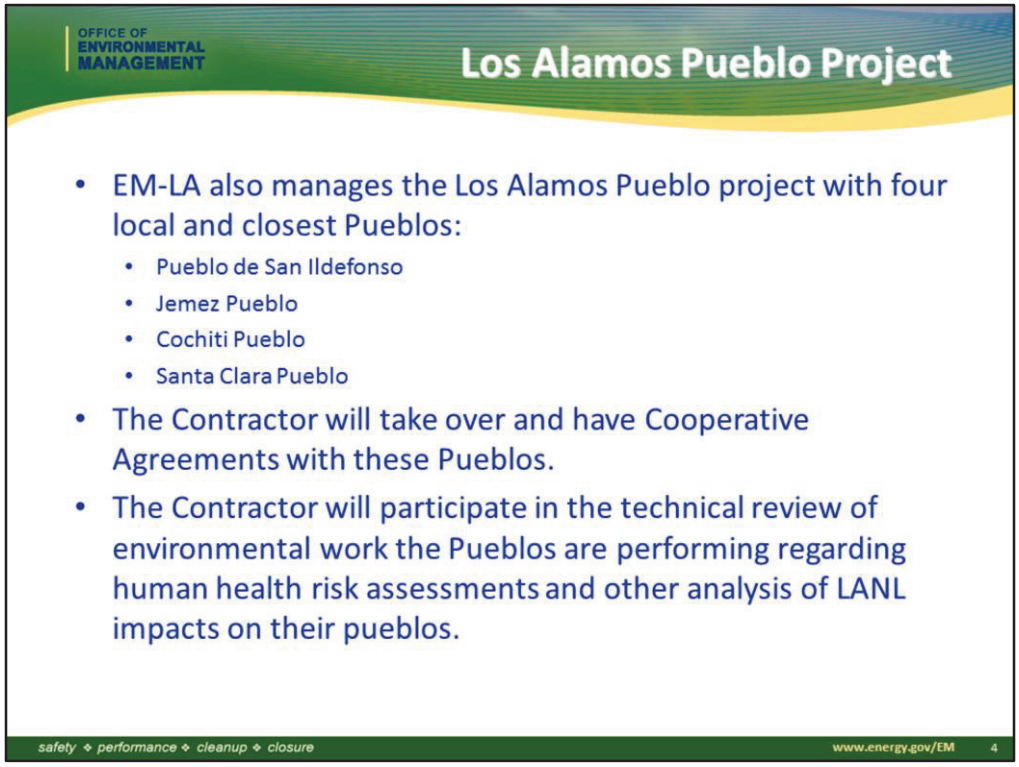
This tour is split into two halves, an environmental remediation half and a transuranic waste disposition half - each takes approximately a half day. We will be stopping either the Otowi Building Cafeteria or the Smith's cold and hot deli. They both have comparable selections of food. Otherwise, we loose too much time at lunch and have to shorten the tour. After lunch, the speakers will swap buses and each of your will see the other half of the tour.



- Route 502 is the main road into Los Alamos and the National Laboratory
  - One road through the Jemez that splits north towards Cuba and south towards Rio Rancho
  - One additional two-track road heading south the Cochiti Pueblo – don't take a sedan
- Route 502 continues up the main hill
- Route 4 splits off and goes to White Rock
- Route 4 also splits and the Truck Route goes up Sandia Canyon to the LANL main gate



- Pojoaque Pueblo owns the Cities of Gold Casino, conference center, and hotel, but is not directly involved in LANL activities.
- Nambe Pueblo is slightly northeast of Pojoaque Pueblo, but is not directly involved in LANL activities.
- Teseuque Pueblo which you likely passed on the way up I-285 is not directly involved in LANL activities.
- Pueblo de San Ildefonso is our nearest neighbor and directly abuts Los Alamos County to the northeast and LANLs east side Santa Clara Pueblo is north of San Ildefonso. We have coordinated wildfire and stormwater responses with Santa Clara Pueblo.
- Jemez Pueblo is located west of LANL but on the other side of Valles Caldera National Monument. Jemez Pueblo is just getting more involved in LANL activities.
- Cochiti Pueblo (you likely passed as your came up I-25 from Albuquerque) is south of LANL. LANL samples sediment in the Cochiti Reservoir for contaminants that have made their way to the Rio Grande.

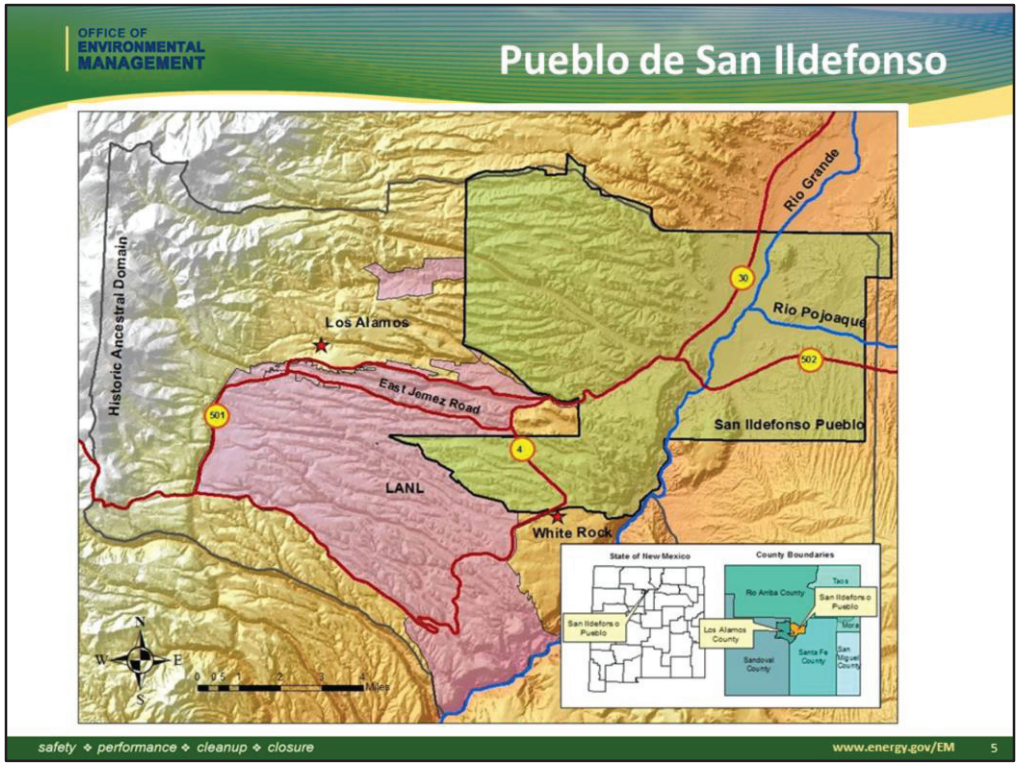


EM-LA also manages the Los Alamos Pueblo project with four local and closest Pueblos:

Pueblo de San Ildefonso
Jemez Pueblo
Cochiti Pueblo
Santa Clara Pueblo

The Contractor will take over and have Cooperative Agreements with these Pueblos.

The Contractor will participate in the technical review of environmental work the Pueblos are performing regarding human health risk assessments and other analysis of LANL impacts on their pueblos.

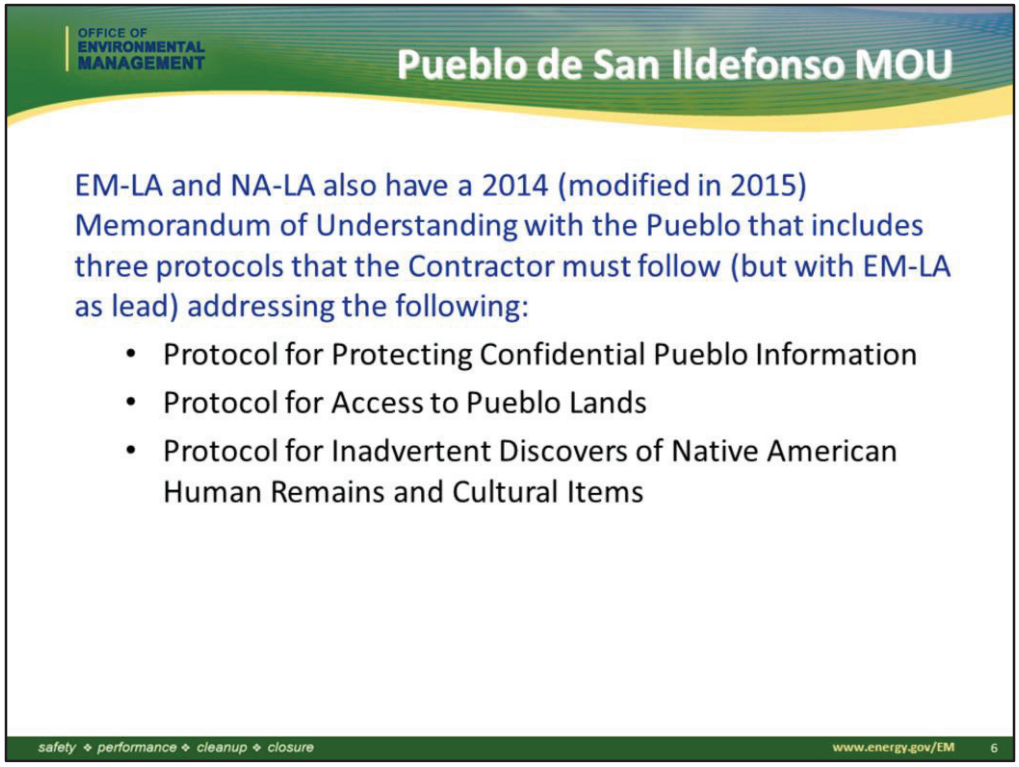


While Passing Pueblo Entrances - Three canyons that cross LANL also cross the Pueblo de San Ildefonso before entering the Rio Grande.

There have been several high-level agreements intended to meet the federal government trust responsibilities regarding environmental surveillance, specifically monitoring for radioactive and chemical contamination to the Pueblo de San Ildefonso.

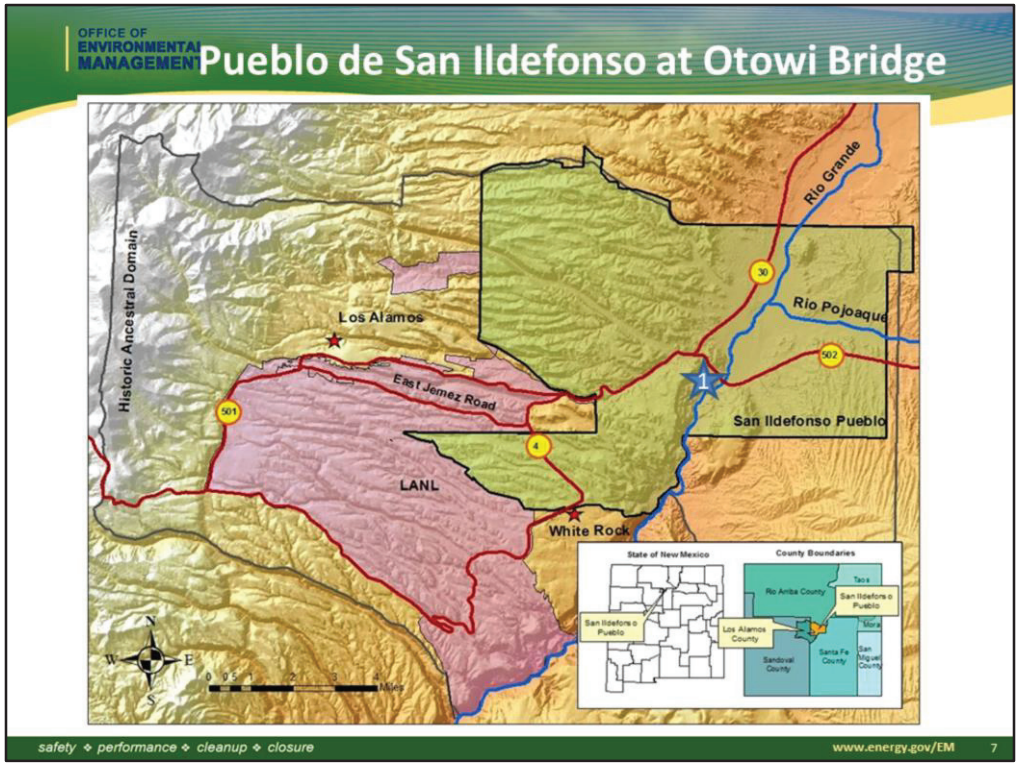
- 1987 - "MOU Among the BIA, DOE and the Pueblo de San Ildefonso Regarding Testing for Radioactive and Chemical Contamination of Lands and Natural Resources Belonging to the Pueblo de San Ildefonso"
- 1996 - MOU Among the Bureau of Indian Affairs, the DOE, and the Pueblo de San Ildefonso (cancelled and replaced the 1987 agreement)

The end result was a Sampling Plan under the 1996 MOU (Appendix A) which is updated annually with the Pueblo de San Ildefonso and identifies how LANL will conduct stormwater, groundwater, springs, sediment/soil, biota and air sampling on Pueblo lands.



EM-LA and NA-LA also have a 2014 (modified in 2015) Memorandum of Understanding with the Pueblo that includes three protocols that the Contractor must follow (but with EM-LA as lead) addressing the following:

Protocol for Protecting Confidential Pueblo Information
Protocol for Access to Pueblo Lands
Protocol for Inadvertent Discovers of Native American Human Remains and Cultural Items



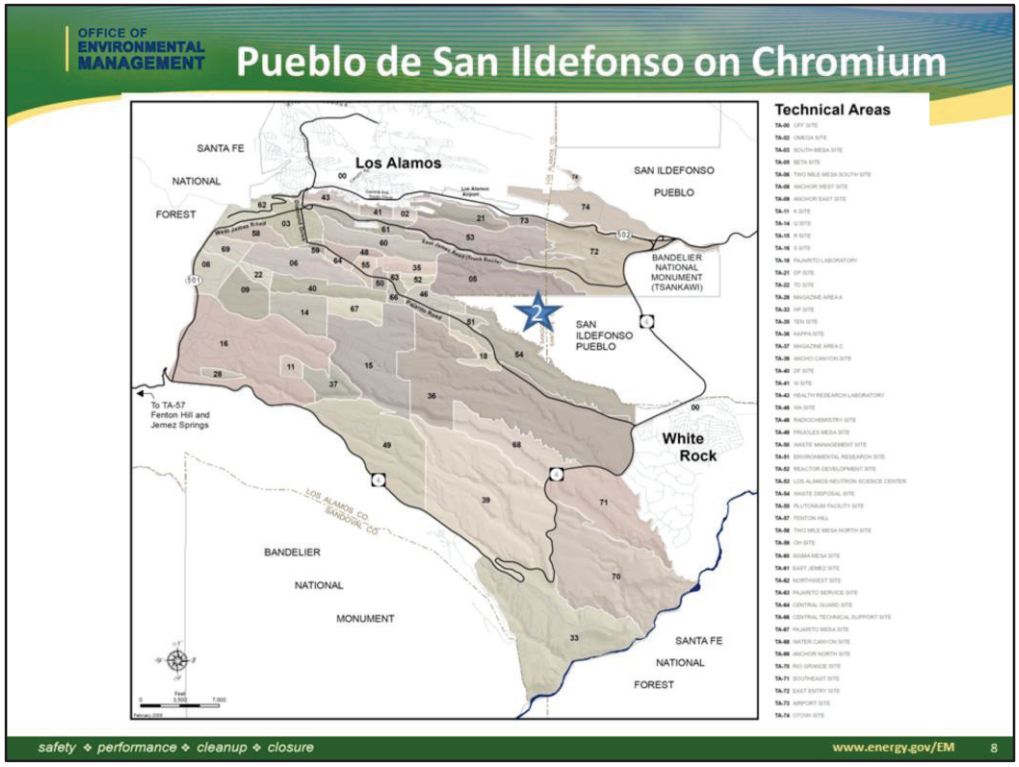
Out the left window, the wash area is the canyon discharge for Los Alamos, Pueblo, and Guaje Canyons to the Rio Grande – Guaje Canyon is north of LANL. Approximately 3 miles south of here the Buckman Direct Diversion Project pump drinking water out of Rio Grande for Santa Fe.

Just off the road left are the remnants of former stormwater gage station E109.9 after the 1,000-year return period storm event in 2013. You might also be able to see the flow detecting radar station installed by the BDD to measure flows just upgradient of the confluence.

Around the next curve on left is gage station E099 that records flow for Guaje Canyon which does NOT include LANL contaminants. E099 provides flow/no flow data to BDD and is the gage station closest to the Rio Grande.

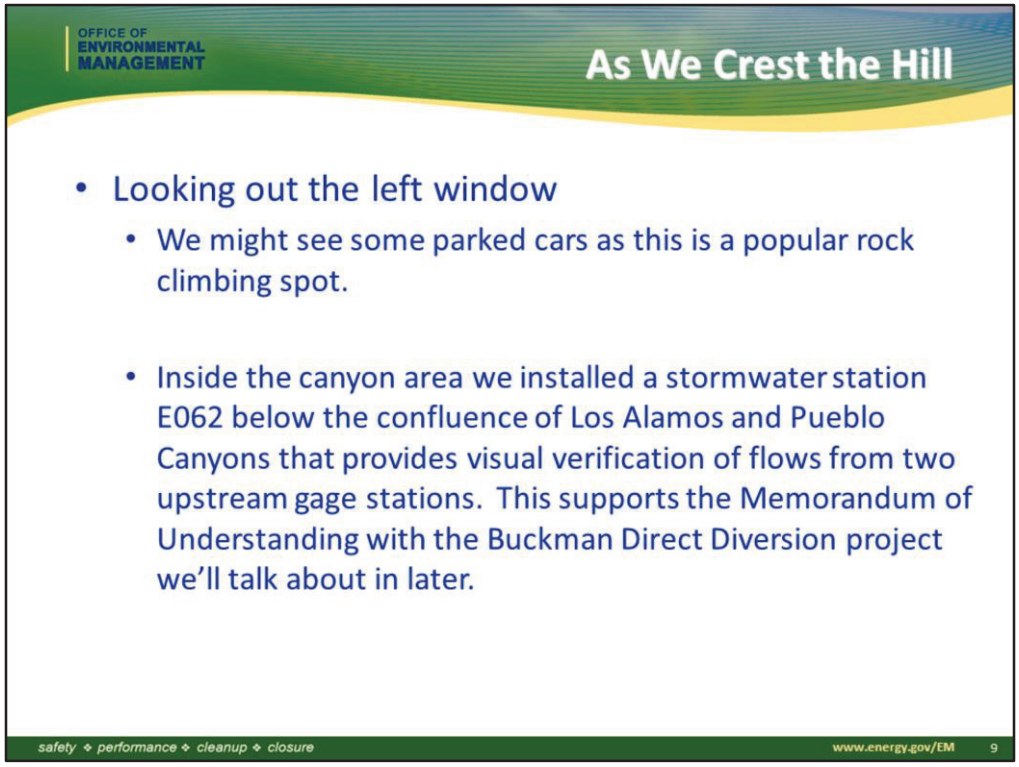
Otowi bridge is also the launching point for raft trips to collect samples from a multitude of springs which discharge to the surface by the Rio Grande. This requires an access permit from the Pueblo de San Ildefonso.
DOE submitted a request to the Governor of the Pueblo de San Ildefonso in 2013 to remove the remaining above ground features of gage station E109.9,

but have not received a response to date.



While passing through Pueblo lands, I want to mention Pueblo interactions for the chromium investigation activities that we will not see

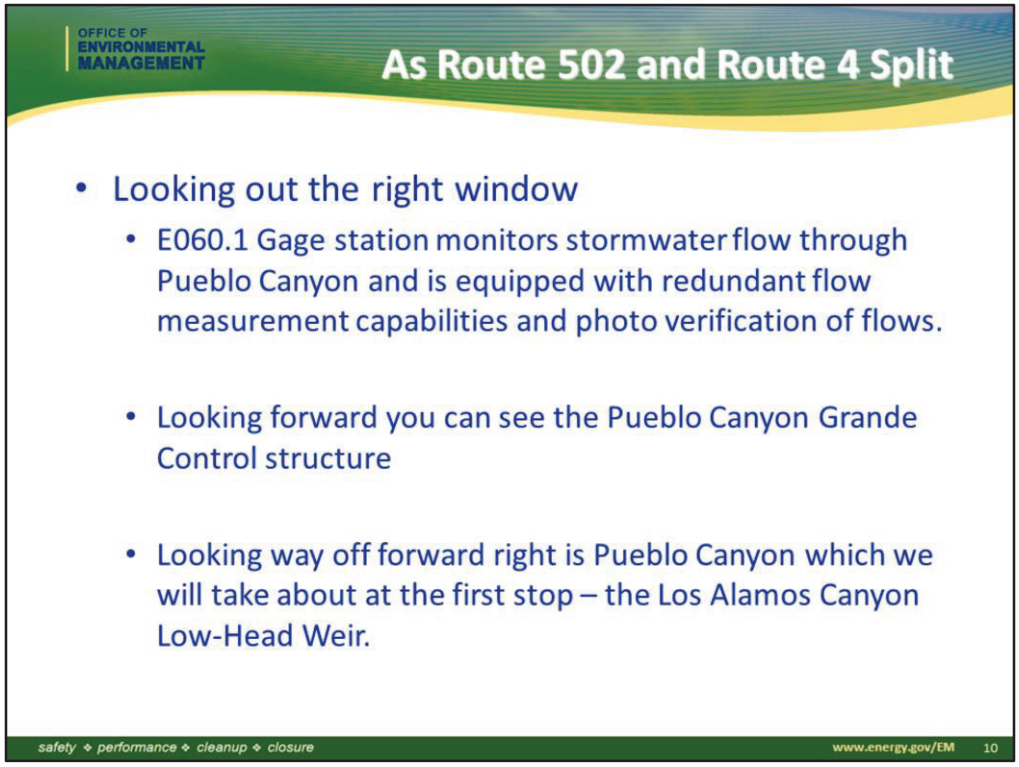
EM-LA has a Limited Access Agreement for the Installation and Operation of a Regional Aquifer Well on Pueblo de San Ildefonso Land executed January 2015 (see star). This is a 5-year agreement which enabled DOE to install monitoring well SIMR-2 on Pueblo Land downgradient of the Chromium plume (Map south of TA-05). Agreement requirements include metering water pumped from SIMR-2.
Installation of new monitoring wells will likely require something similar to the Limited Access Agreement for SIMR-2. There are currently 4 groundwater monitoring wells located on Pueblo land and a known State requirement for an intermediate well (R-10i).
Due to the proximity of the chromium plume to the Pueblo de San Ildefonso, close coordination needs to occur throughout the life of the Chromium Plume Control Interim Measures and Plume-Center Characterization and then into overall plume remedy selection/implementation.



Looking out the left window

We might see some parked cars as this is a popular rock climbing spot.

Inside the canyon area we installed a stormwater station E062 below the confluence of Los Alamos and Pueblo Canyons that provides visual verification of flows from two upstream gage stations. This supports the Memorandum of Understanding with the Buckman Direct Diversion project we'll talk about in later.

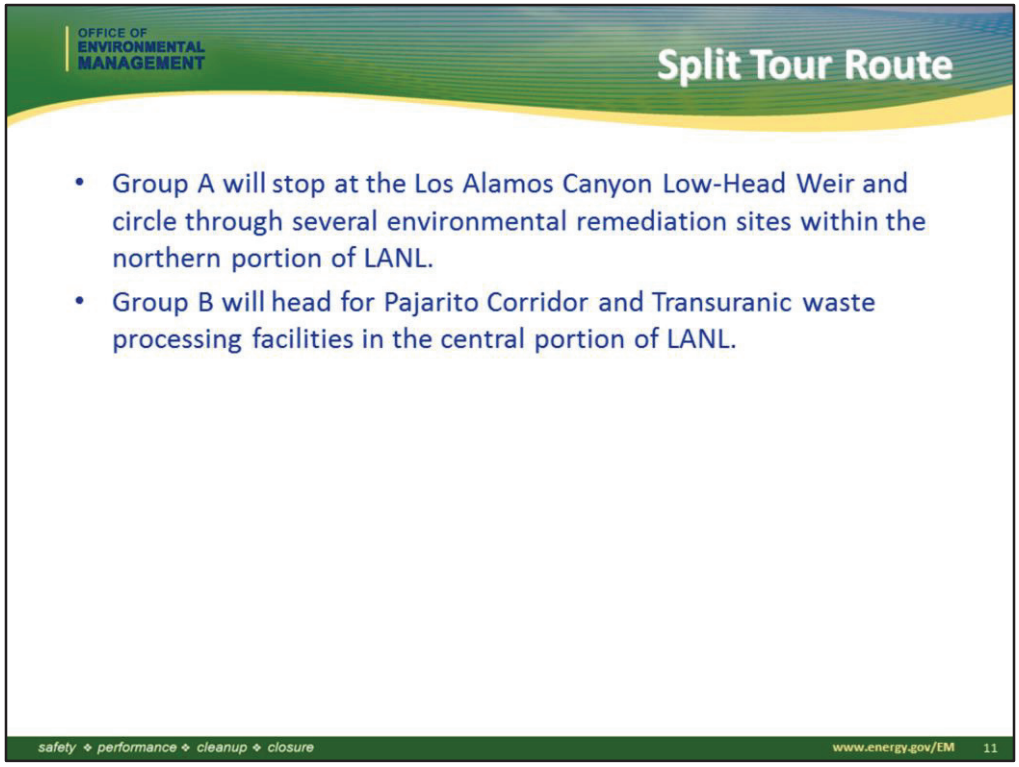


Looking out the right window

E060.1 Gage station monitors stormwater flow through Pueblo Canyon and is equipped with redundant flow measurement capabilities and photo verification of flows.

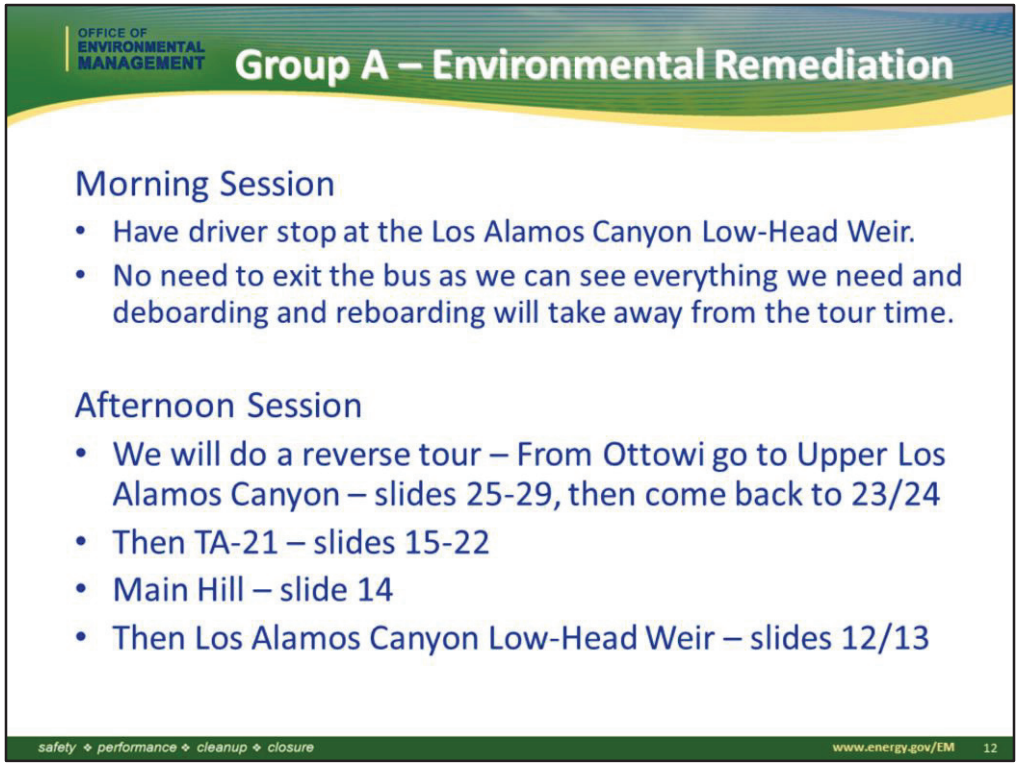
Looking forward you can see the Pueblo Canyon Grande Control structure

Looking way off forward right is Pueblo Canyon which we will take about at the first stop – the Los Alamos Canyon Low-Head Weir.



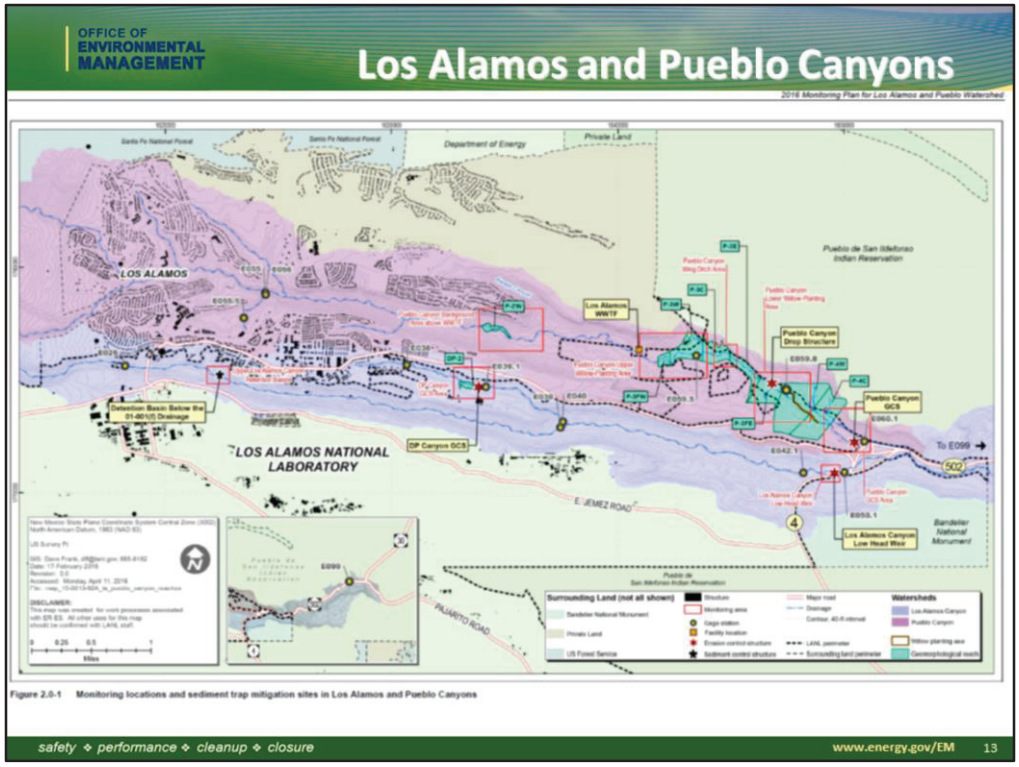
Group A will stop at the Los Alamos Canyon Low-Head Weir and circle through several environmental remediation sites within the northern portion of LANL.

Group B will head for Pajarito Corridor and Transuranic waste processing facilities in the central portion of LANL.



Morning Session
Have driver stop at the Los Alamos Canyon Low-Head Weir.
No need to exit the bus as we can see everything we need and deboarding and reboarding will take away from the tour time.

Afternoon Session
We will do a reverse tour – From Ottowi go to Upper Los Alamos Canyon – slides 25-29, then come back to 23/24
Then TA-21 – slides 15-22
Main Hill – slide 14
Then Los Alamos Canyon Low-Head Weir – slides 12/13



Historic LANL operations had outfalls into both Los Alamos and Pueblo Canyons. As a result, there is residual radiological contamination in the sediments within the canyons. Sediment transport mitigation measures have been installed in both canyons and tributaries to reduce sediment transport off of LANL property.

13 stormwater monitoring gage stations exist within Los Alamos and Pueblo Canyons to monitor the effectiveness of sediment mitigation measures to reduce sediment migration off of LANL. An annual monitoring plan and an annual report for the previous year are prepared for Los Alamos and Pueblo Canyons Sediment Transport Mitigation Project.

The figure shows the gage stations, sediment mitigation structures, LA Weir and the detention basins installed below the 01-001(f) drainage.

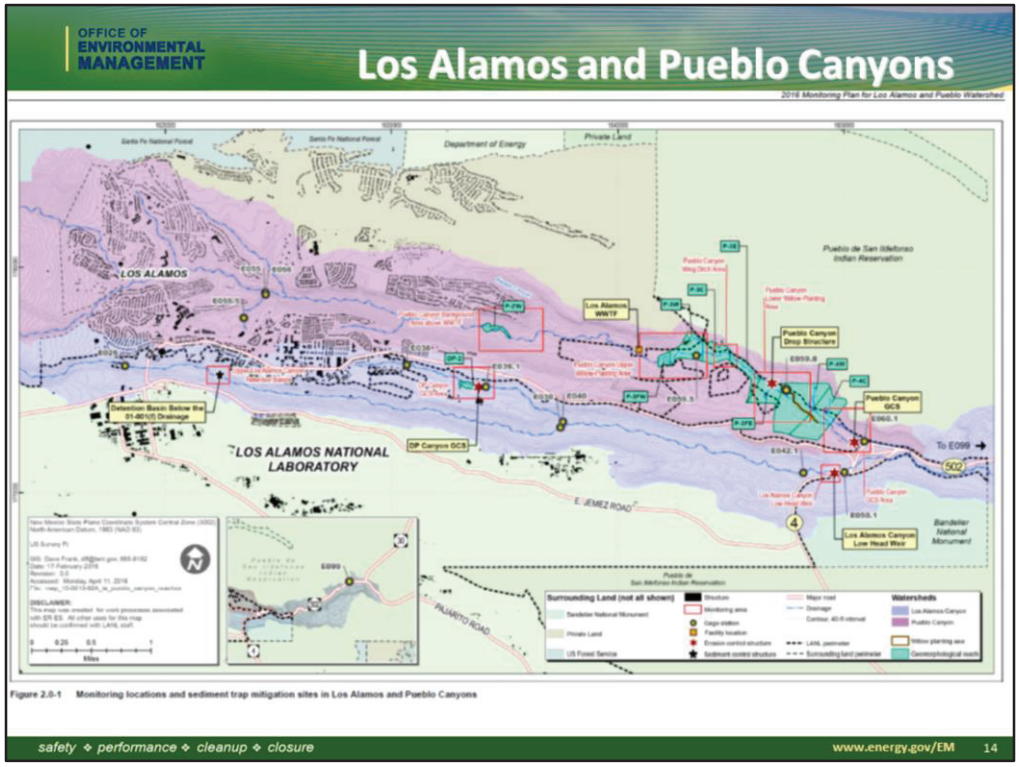


Figure 2.0-1 Monitoring locations and sediment trap mitigation sites in Los Alamos and Pueblo Canyons

Several large mitigation measures were installed in these canyons: Pueblo Canyon Grade Control Structure (GCS) upgradient of Pueblo Canyon/LA Canyon confluence mitigates offsite sediment transport from LANL (which you saw from the road coming up).

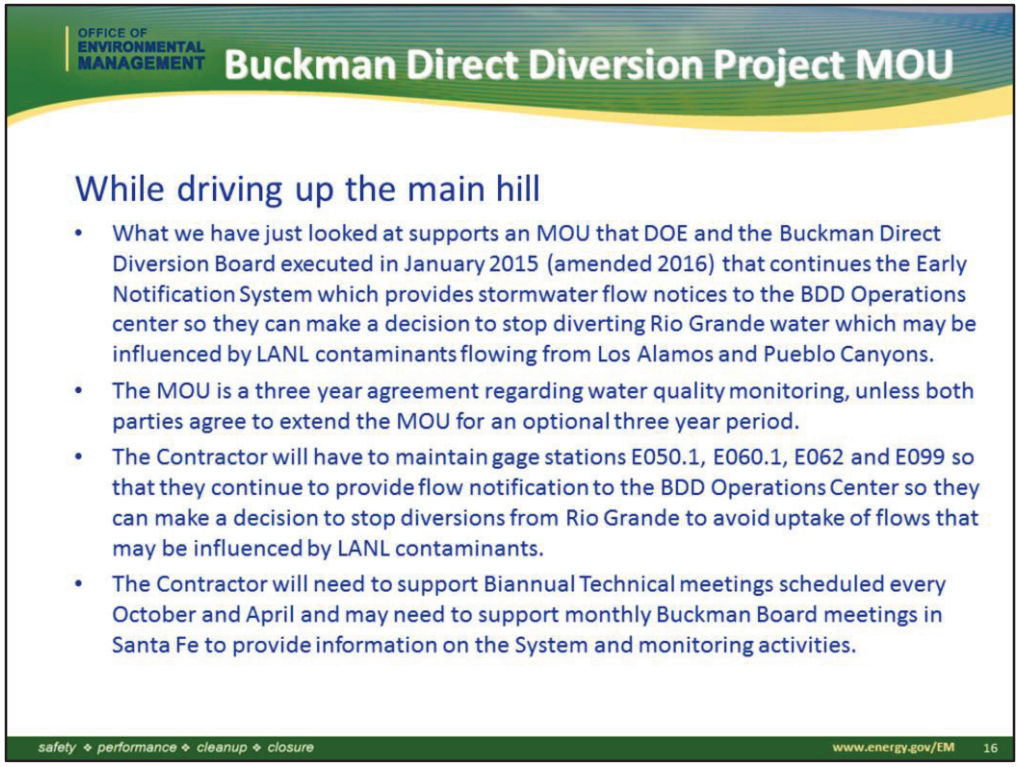
The Pueblo Canyon wetland and drop structure exists upgradient of the GCS, as do Gage Stations E059.5 and E059.8, which monitor the effectives of these measures. The health of the wetland requires coordination with Los Alamos County for their Waste Water Treatment Plant effluent in Pueblo Canyon. Los Alamos County has voiced their desire to go to zero discharge from the WWTP which would be detrimental to the wetland which is crucial to keeping plutonium contaminated sediments in place.

The GCS, wetland and drop structure are located on land that was transferred to Los Alamos County in 2015 so activities related to these structure or sampling in the Canyon requires an access agreement.Willows were planted a little further upstream, which we will not see today. Further up Los Alamos Canyon are detention basins that we will be driving by later.

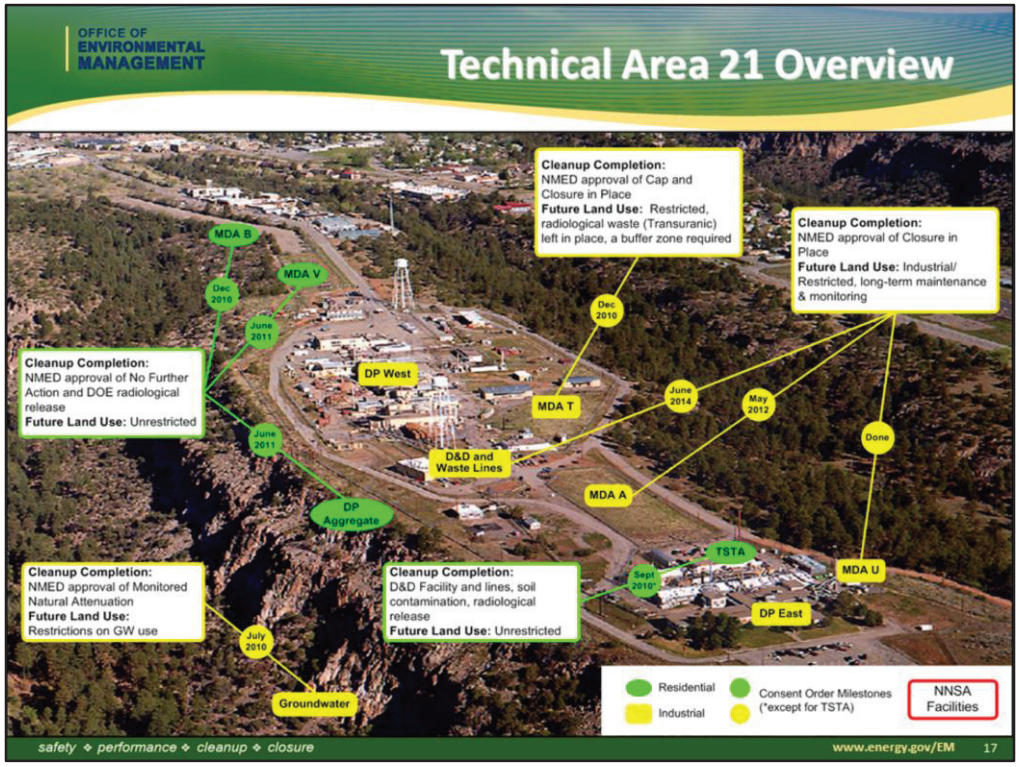
Installed after the Cerro Grande fire by the DOE to mitigate flooding anticipated after the fire.

Gage stations E042 (upgradient) and E050.1 (downgradient) monitor the effectiveness of the weir at mitigating sediment flow off LANL property from LA Canyon. Gage station E050.1 is equipped with redundant flow measurement capabilities and photo verification of flows. E062 was installed below the confluence of LA/P Canyons and provides visual verification of flows.

Requires sediment periodic sediment removal from basins upgradient of the weir; issues with disposition pathway for sediment currently being proposed *(Photo P1010005 shows sediment being excavated from upgradient of the weir which largely accumulated after the 2013 flooding post Las Conchas fire)*



While driving up the main hill - What we have just looked at supports an MOU that DOE and the Buckman Direct Diversion Board executed in January 2015 (amended 2016) that continues the Early Notification System which provides stormwater flow notices to the BDD Operations center so they can make a decision to stop diverting Rio Grande water which may be influenced by LANL contaminants flowing from Los Alamos and Pueblo Canyons.
The MOU is a three year agreement regarding water quality monitoring, unless both parties agree to extend the MOU for an optional three year period.
The Contractor will have to maintain gage stations E050.1, E060.1, E062 and E099 so that they continue to provide flow notification to the BDD Operations Center so they can make a decision to stop diversions from Rio Grande to avoid uptake of flows that may be influenced by LANL contaminants.
The Contractor will need to support Biannual Technical meetings scheduled every October and April and may need to support monthly Buckman Board meetings in Santa Fe to provide information on the System and monitoring activities.



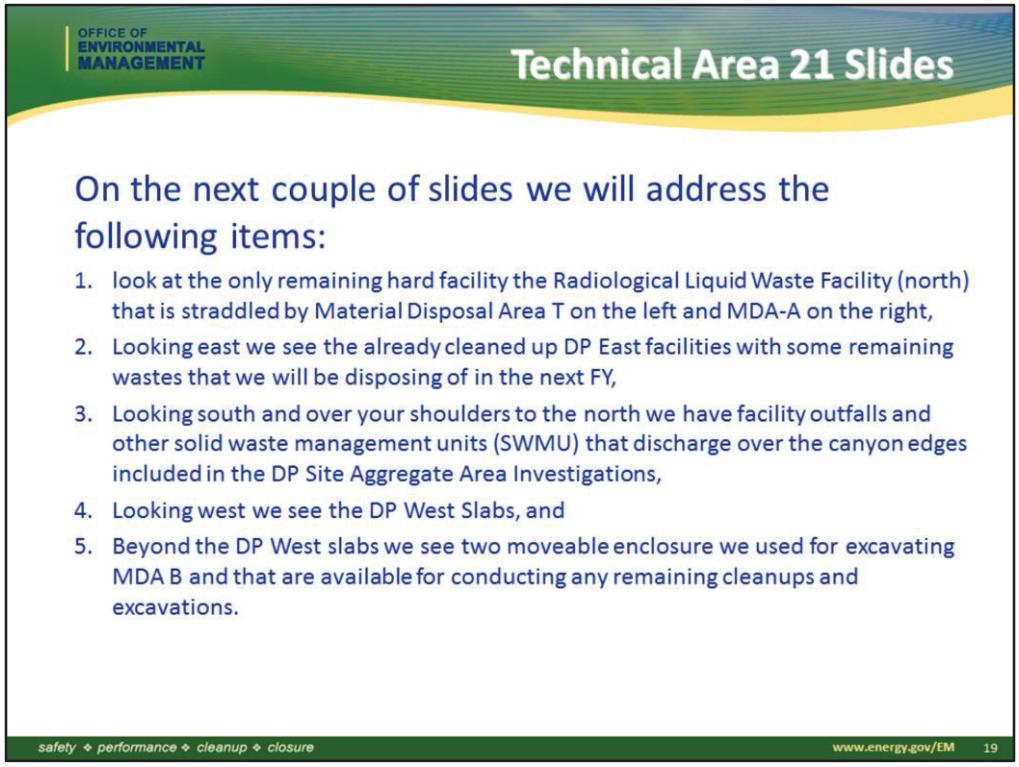
As we drive up to the Airport we can start talking:
If everyone will look out the left windows, we see DP mesa and Technical Area 21. Operations commenced in 1945 with the transfer of plutonium purification activities from the original Manhattan Engineering District facilities to TA-21.
Facilities were used for plutonium recovery, precipitation, conversion, purification, reduction, metal casting, and machining. Some facilities were later converted to allow for uranium hydride and enriched uranium fuel element research activities, including recovery, concentration, conversion and metal production.
The plutonium processing and purification activities were moved from TA-21 in the late 1970s, while other operations continued in other parts of the TA. DOE identified TA-21 as potentially suitable for transfer to the Los Alamos County in the late 1990s, subject to necessary remediation.

Past operations at TA-21 resulted in environmental contamination at the site; a total of 154 potential release sites and 125 numbered structures once existed within the TA-21 parcel.

While turning into DP Road we can say:
This is the only way in and out of DP Mesa. For all the work we have to do, we have to minimize the impact to the local businesses that are located along DP Road.

While going down DP Road:
Several businesses are located right by the entrance to the controlled section of the mesa where cleanup is still required. On the right is the fence and fabric that separate former Material Disposal Area B that was excavated and remediated to a residential standard.

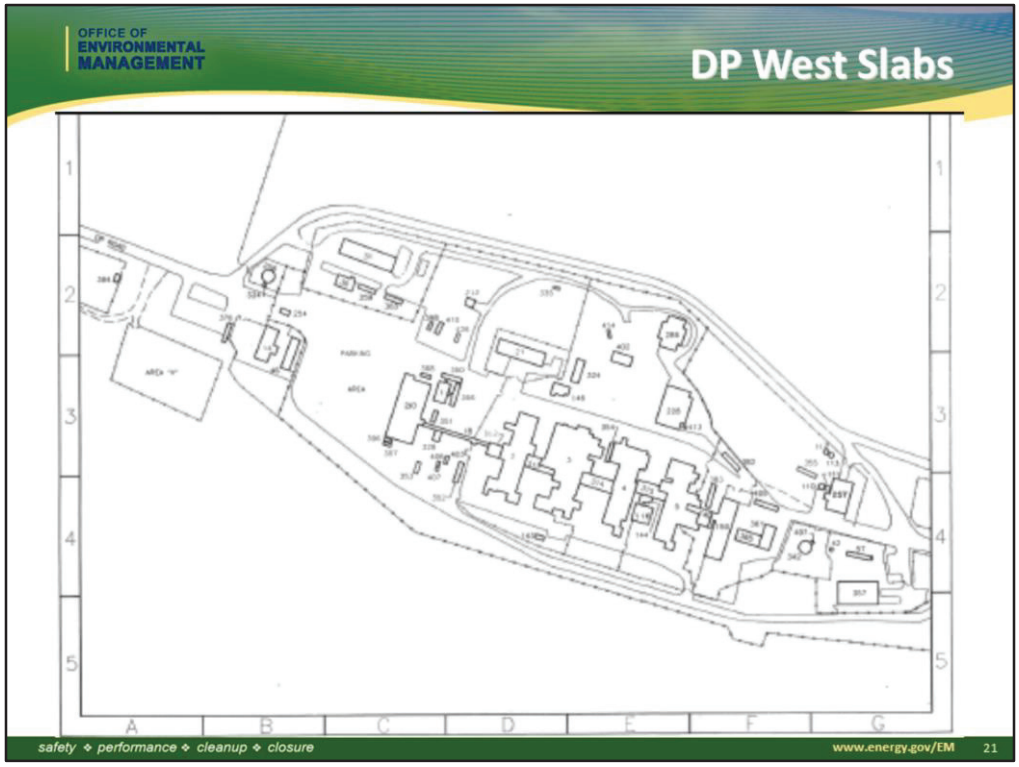
Inside the gate we will be driving up to just before the only remaining hard structure in TA-21 – the Radiological Liquid Waste Facility 21-257 and getting out. Once the groups are out of the buses, I will provide a small orientation to TA-21.



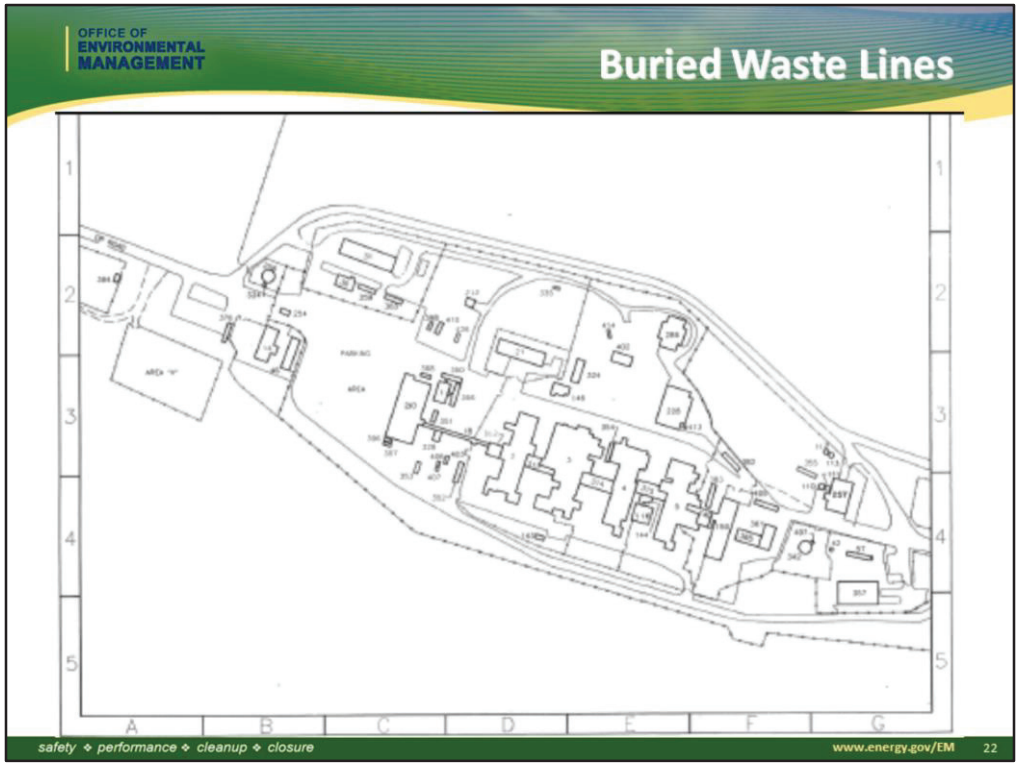
On the next couple of slides we will address the following items:

1. look at the only remaining hard facility the Radiological Liquid Waste Facility (north) that is straddled by Material Disposal Area T on the left and MDA-A on the right,
2. Looking east we see the already cleaned up DP East facilities with some remaining wastes that we will be disposing of in the next FY,
3. Looking south and over your shoulders to the north we have facility outfalls and other solid waste management units (SWMU) that discharge over the canyon edges included in the DP Site Aggregate Area Investigations,
4. Looking west we see the DP West Slabs, and
5. Beyond the DP West slabs we see two moveable enclosure we used for excavating MDA B and that are available for conducting any remaining cleanups and excavations.

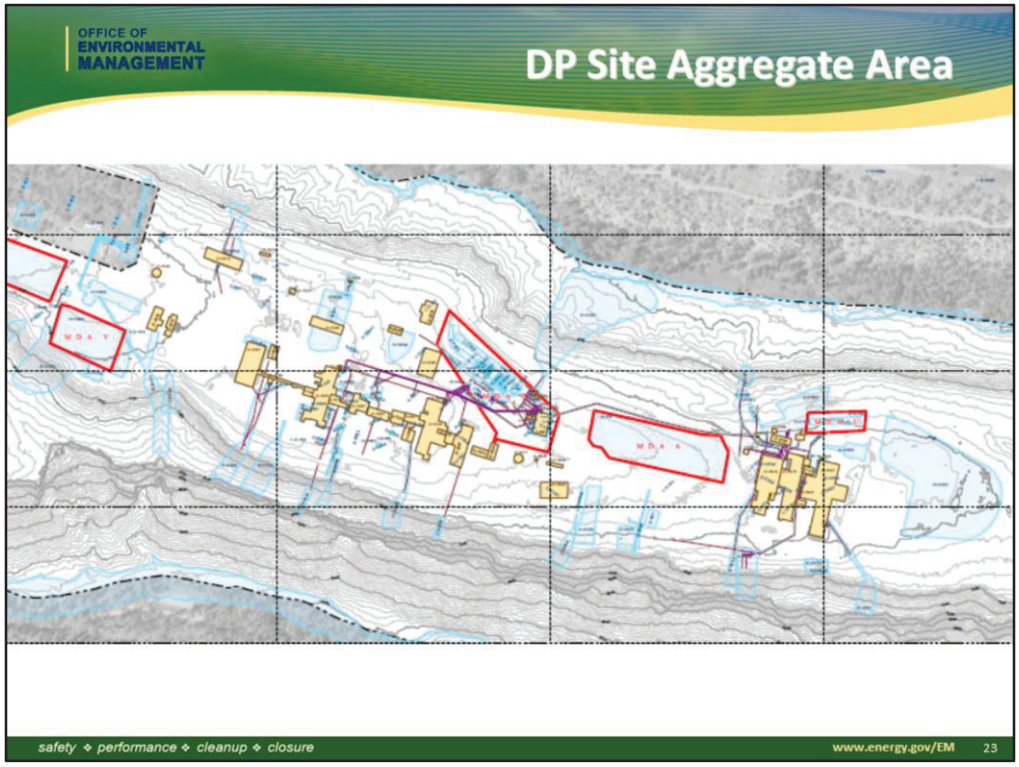
The Radiological Liquid Waste Facility, Building TA-21 257, had been deactivated and decommissioned. This building received generated industrial liquid waste for treatment via buried industrial waste lines from DP East facilities (which have been removed and disposed of) and from DP West facilities.
This facility is currently being only minimally maintained as there is internal loose contamination that we need to prevent from leaving the facility envelop. We have temporarily repaired a leaking roof, for example. This facility still has tanks and other contaminated equipment inside that we hope to remove this FY. The building must be demolished and the associated waste disposed of. There is a basement where the tanks are located, that when demolished may be useful for dispositioning other relatively clean waste on site. This location is between MDA A and MDA T and may possibly be located such that an engineered cover over the two MDAs may cover this location.



All DP-West buildings have undergone demolition down to slabs which you can see just to the west of the buses. These DP West Slabs and foundations must be removed and disposed off-site.
We have conducted preliminary sampling around the slab footprints but have not sampled through the slabs to characterize the level of contamination beneath the slabs. We expect to take samples from beneath the slabs this coming FY. However, based on the history we saw during demolition of the DP East facilities and the footprint characterization results, we expect that the soils beneath DP West slabs are sufficiently contaminated that we cannot just pull up the slabs without remediating contaminated soils – so these two activities will have to be coordinated such that once started, the entire sequence must be completed.
The wastes that have to be disposed of will have to leave via the single entrance/exit and need to minimize the impacts to the community as the material is transported off site.

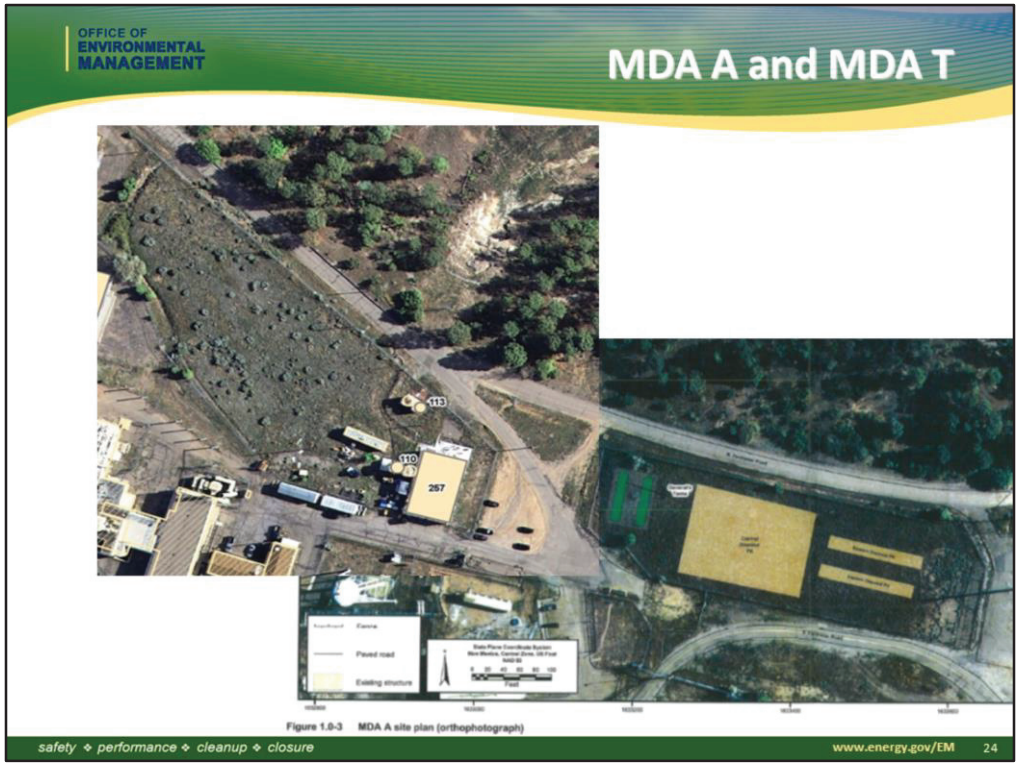


Buried industrial waste lines and contaminated soils surrounding the piping remain from the Radiological Liquid Waste Facility and the DP West slabs. These lines generally run beneath the road surface we are parked on. These lines must be excavated and dispose off-site.



DP Site Aggregate Area clean ups include about 154 small release sites with soil surface contamination. Although some have been cleaned up, most remain.

We expect that all of the activities discussed so far will require a substantial coordination effort so that it can be done in logical and safe sequence. All of these activities mentioned are in a single campaign identified in the DRAFT 2016 Consent Order and identified in Section J Attachment J-8. Several campaign-level interim and final milestones are expected to be identified in the DRAFT 2016 Consent Order. EM-LA will have the Contractor participate in identifying.

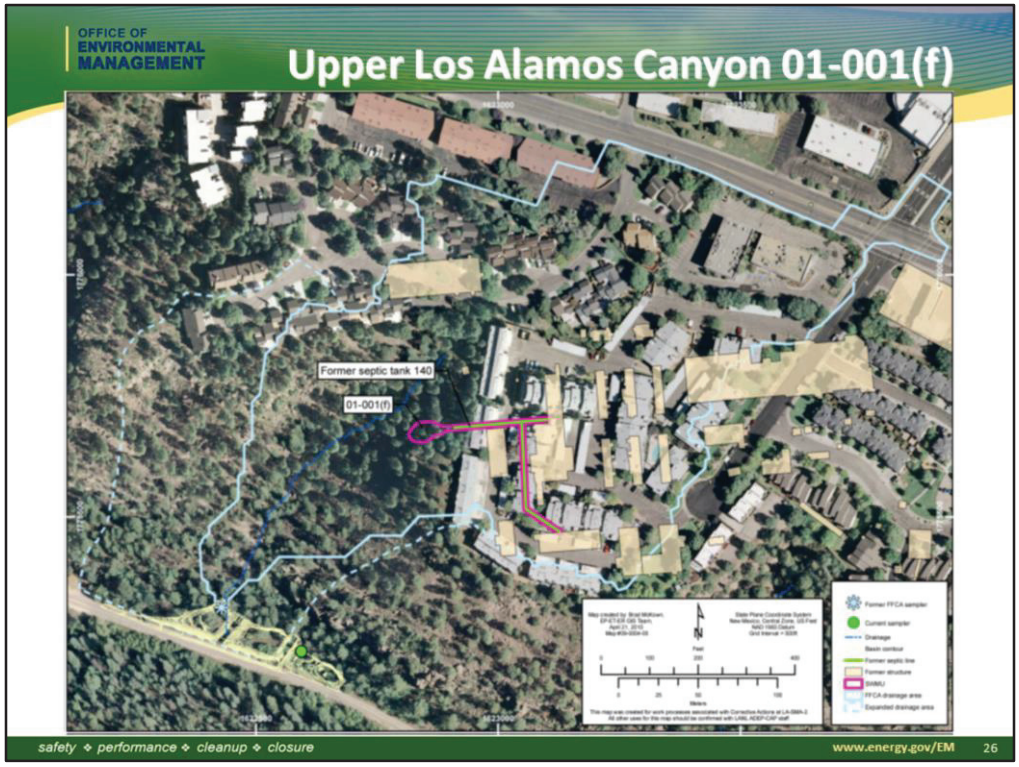


Material Disposal Area (MDA) T consists of four absorption beds used to dispose of liquid waste; a retrievable waste storage area; a series of disposal shafts; an acid holding tank and acid sump; a caisson built at the northwest corner of absorption bed 1 in 1959; an inactive container storage area for alcohol, acetone, and freon; and two surface spills of radioactive paste.
MDA A was a subsurface disposal site closed in 1976 that received contaminated materials from the earliest Laboratory operations and contains both hazardous chemical and radioactive waste. The central pit is estimated to contain approximately 14,000 yd3 of waste. Two eastern trenches each contain approximately 1,000 yd3 of waste received from radioactive and hazardous chemical waste streams generated from 1945 to 1946.
From 1945 to 1947, plutonium residues were discharged into two 50,000 gallon underground storage tanks, commonly known as the General's Tanks, that were located on the west end of MDA A. Each of the tanks is 12 ft in diameter and 63 ft in length. Liquid wastes containing 239/240Pu and 241Am and hazardous chemicals were to be stored until improved chemical recovery methods could be developed. The tanks are a HC-2 nuclear facility.

Lets board the buses.

We'll stop at the trailers and allow a VERY short bathroom break.

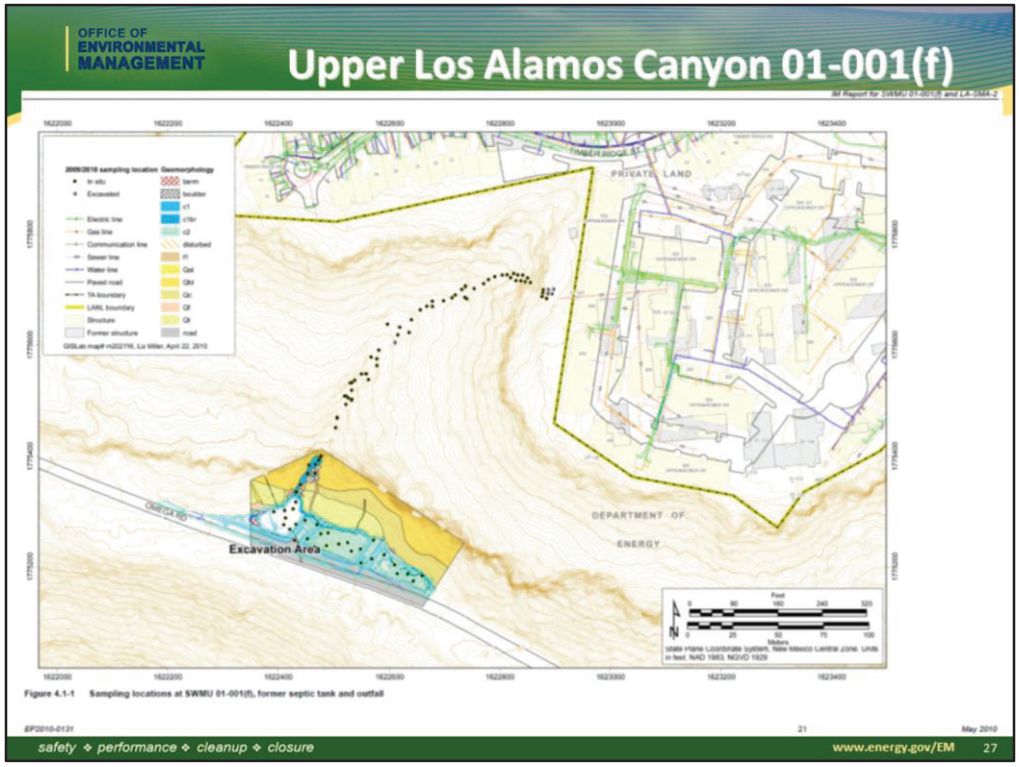
Next we will proceed through town and point out several other sites.



* While driving down Trinity Drive, just past the Los Alamos County Judicial Center and past the corner of Trinity and Oppenheimer Drive, direct attention to the Timber Ridge apartment complex that will be on the left side.

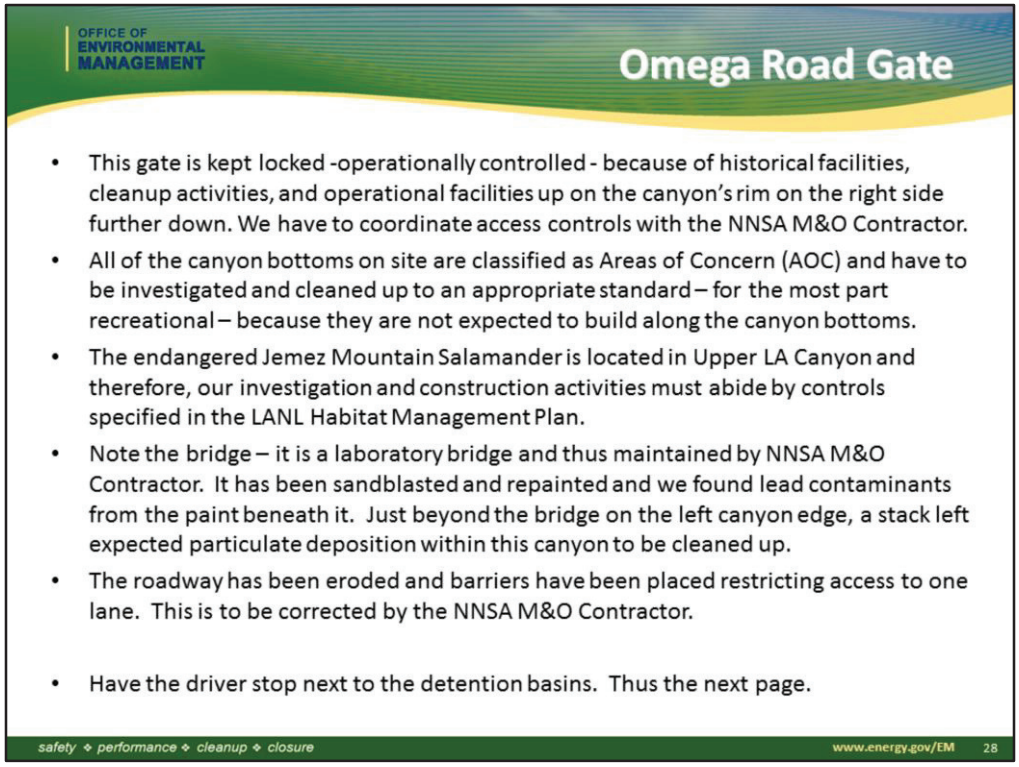
* On the figure the blue outline is the drainage area for Solid Waste Management 01-001(f) with the dark blue line in the center left (hard to see) representing the discharge drainage for PCBs from the original Manhattan Project facilities shown in tan shading. PCB contaminated soils remain on the slope behind and down canyon. We will see this from the bottom side in Upper Los Alamos Canyon.

* This is just an example of one of the complicated sites in the historical areas of the Laboratory. Most of the historical sites will have been cleaned up before this contract is in place, but there will likely be a couple of remaining sites that might be in progress.

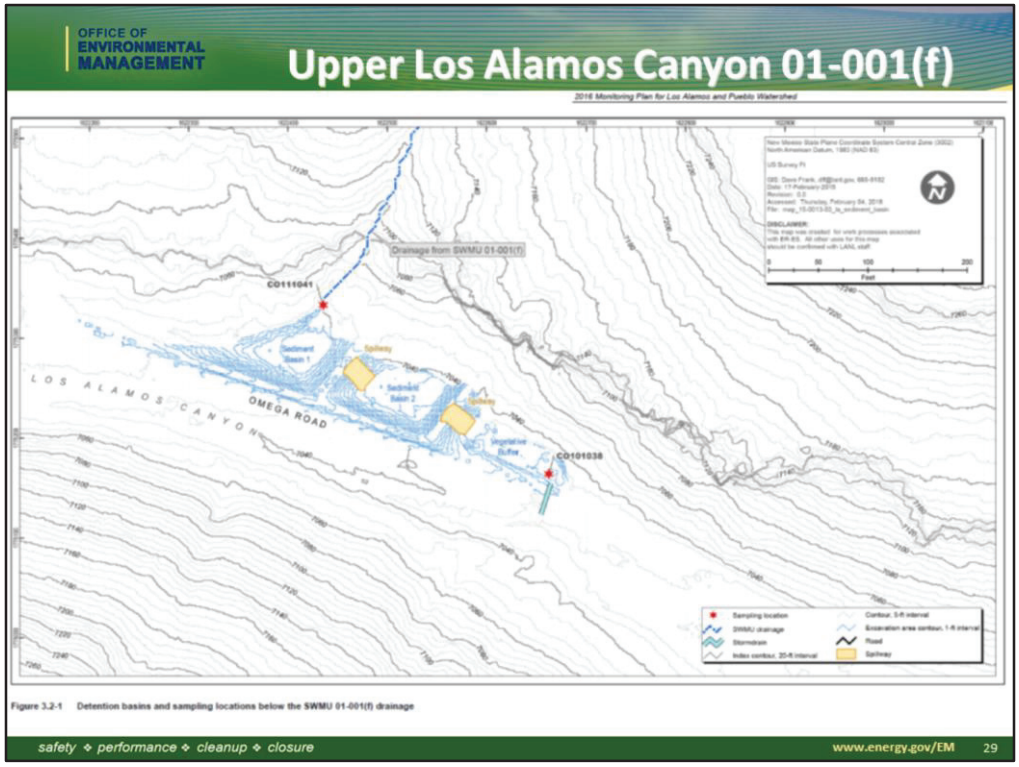


For the site we just drove by, the black dots show the sampling locations conducted for the investigation conducted to date – both on the slope and by Omega Road in the bottom of the canyon – to define the nature and extent of the PCB contamination in the soils on the slope. When we get to the bottom, you will not be able to see the slope above the rock wall, but you can understand the difficulties in remediating the soils on the upper slope.

we are passing the Los Alamos Medical Center and across the street we will wind down the road to the bottom of Los Alamos Canyon.



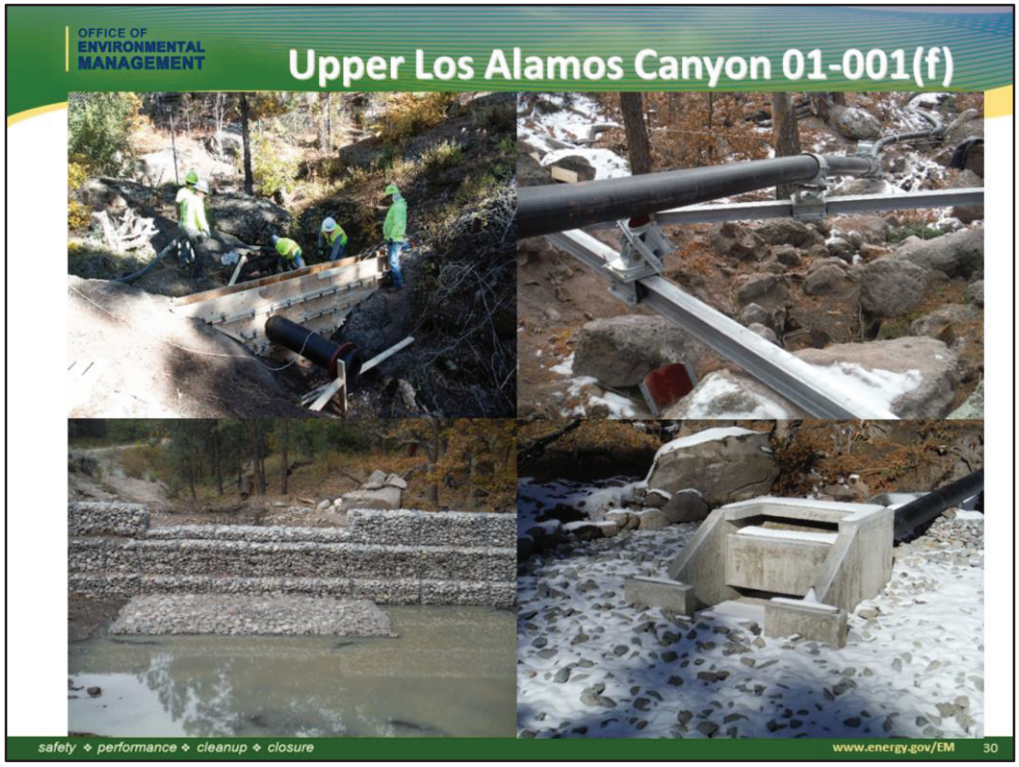
This gate is kept locked because of historical facilities, cleanup activities, and operational facilities up on the canyon's right rim. We have to coordinate access controls with the NNSA M&O Contractor.
All canyon bottoms on site are classified as Areas of Concern (AOC) and have to be investigated and cleaned up to an appropriate standard – for the most part recreational – because construction is not expected along the canyon bottoms.
The endangered Jemez Mountain Salamander is located in Upper LA Canyon and therefore, our investigation and construction activities must abide by controls specified in the LANL Habitat Management Plan.
Note the bridge – it is owned by the laboratory and thus maintained by NNSA M&O Contractor. It has been sandblasted and repainted, causing lead contaminants beneath it. Beyond the bridge on the left rim, stack emissions left expected particulate deposition within this canyon.
The roadway has been eroded and barriers have been placed restricting access to one lane. This is to be corrected by the NNSA M&O Contractor.
Have the driver stop next to the detention basins. Thus the next page.



In 2010 interim measures were implemented within the SWMU 01-001(f) outfall and drainage area to reduce the inventory of contaminants present and to mitigate contaminant migration to LA Canyon. Releases from SWMU 01-001(f), a former septic system, have resulted in the presence of contaminants, primarily polychlorinated biphenyls (PCBs) and radionuclides, in the drainage. 2693 yd3 of PCB-contaminated sediment and 192 yd3 of rock contaminated with PCBs was removed from the outfall area and the drainage. After removal of the sediment, two surface water retention basins were installed to prevent migration of sediment from the site. Average depth of the basins exceeds 4 ft.

Based on the confirmation sampling data, additional removal and stabilization activities are recommended for the mesa-top portion of the site because of the accessibility of this area by the public. In addition, installation of controls to divert run-on away from the SWMU 01-001(f) outfall and stabilize the hillside drainage portion of the site is recommended to further reduce contaminant migration. Lastly, performance of a risk assessment for the hillside drainage portion of the site is recommended as part of the Phase II investigation for Upper Los Alamos Canyon Aggregate Area to determine what additional activities, if any, are needed.

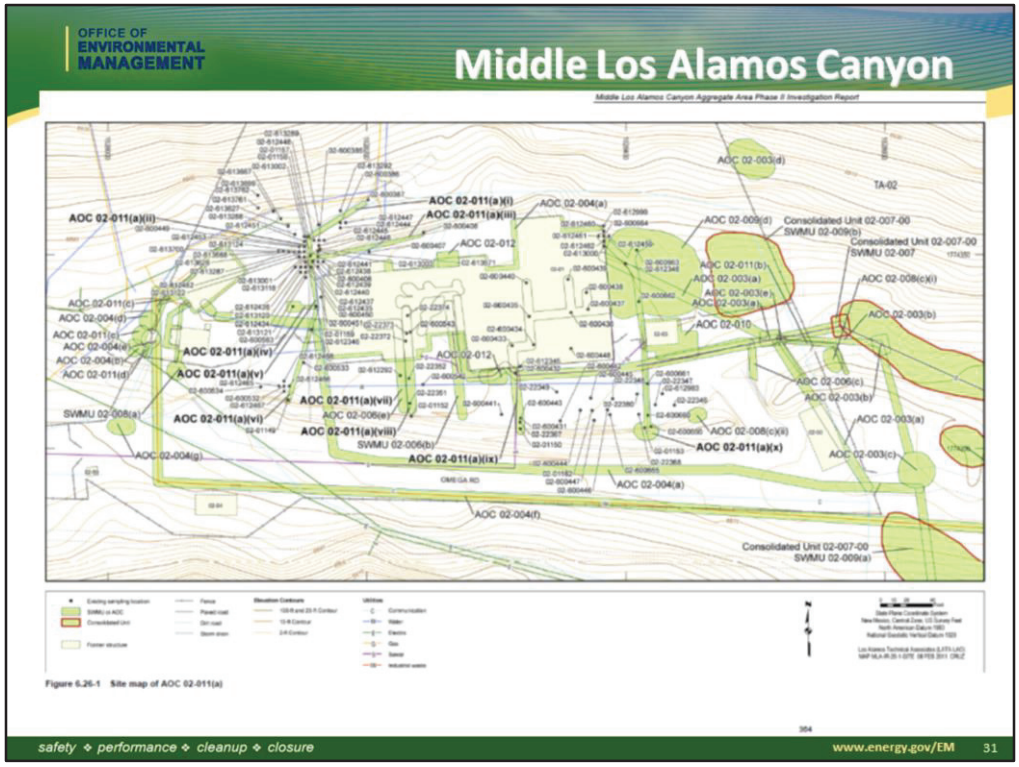
As part of the Individual Permit, in 2015/2016 a pipeline was installed in the drainage to divert townsite runoff around the SWMU 01-001(f) drainage and basins. You are looking at that pipeline. Negotiations with NMED still need to occur to determine the path forward for the remaining contamination at the outfall area and within the drainage.



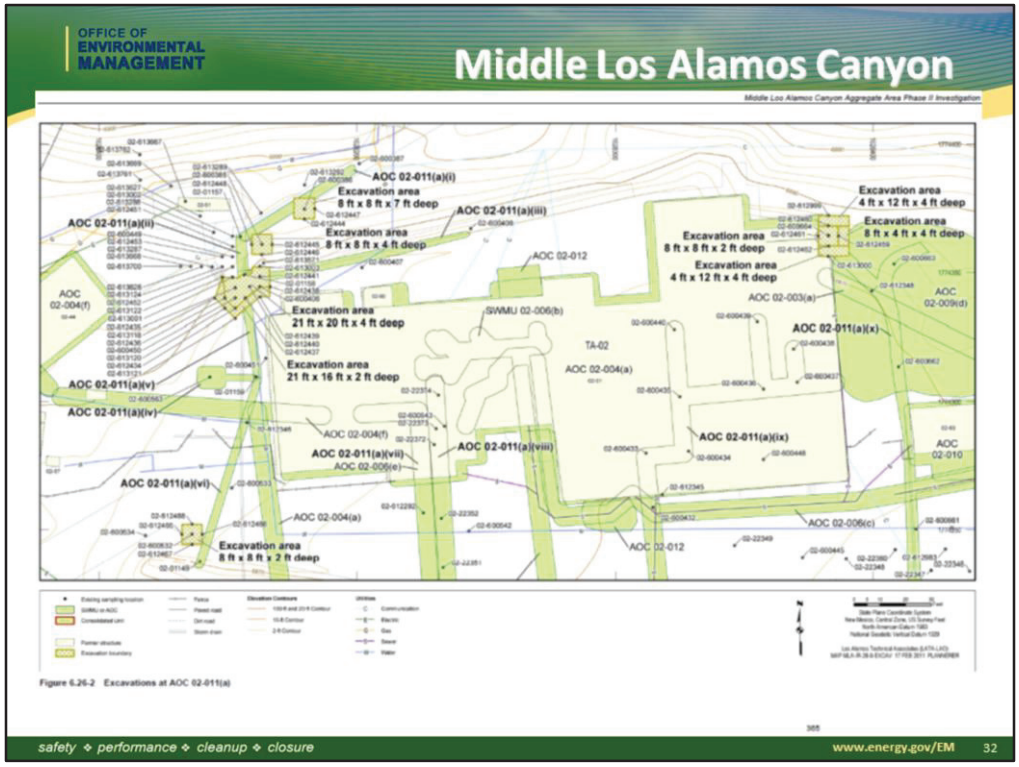
Work priorities for the limited funding have prevented the cleanup of PCB contaminated sediment on the cliff side below Solid Waste Management Unit (SWMU) 01-001(f). This site is listed on the Individual Permit for Stormwater which requires prevention of discharges of PCBs into tributaries of the waters of the US. Pictures reflect:

- Top right – construction of a headwall to collect and divert rainwater runoff past the PCB contaminated soil on the slope side.
- Top left – support structures and stormwater diversion pipe on the slope over and around the PCB contaminated soils. You can see the pipe as it comes over the bottom wall into the basin.
- Bottom left – gabion wall that now bisects the western most detention basis shown on the previous slide.
- Bottom right – flow control box to dissipate the water energy.

If you look out the right windows, you can see where the culverts discharge the diverted clean water into the Los Alamos Canyon stream, which flows to the Rio Grande.



TA-02 was used to house a series of research reactors from 1943 to 2003 when D&D of the site occurred. The main reactor building (02-1) was constructed in 1943. It housed five separate nuclear reactors: three iterations of water boiler reactors (WBRs) located on the east side of the building, one plutonium-fueled reactor (the Clementine Reactor) followed by an enriched uranium reactor, and the Omega West Reactor (OWR). A number of facilities were constructed over the years to support the TA-02 research activities. TA-02 was active from 1943 to 1993.
Various remedial actions, such as soil removal and D&D, were conducted in the bottom of Los Alamos Canyon, including at TA-02, after the Cerro Grande fire. These actions were taken to reduce the risk of contaminants dispersing from post-fire floods. Approximately 54 yd3 of soil contaminated with cesium-137 was removed in 2000, following an extensive field survey for gross-gamma radiation. The OWR and associated structures underwent D&D in 2002 and 2003.
Phase II Investigation activities and limited excavation was conducted in 2010. NMED requires a revised Phase II IR and additional investigation (Phase III Investigation).



The buses will turn around at the former OWR area where you can show Fig 1 and the Plates 1 and 44 for TA-02 and the figures 6.26-1 and 6.26-2 for the PCB cleanup area that requires additional investigation for lateral and vertical extent and additional excavation.

Group A seeing environmental remediation sites in the morning will be taken to the Smith's cold and hot deli.

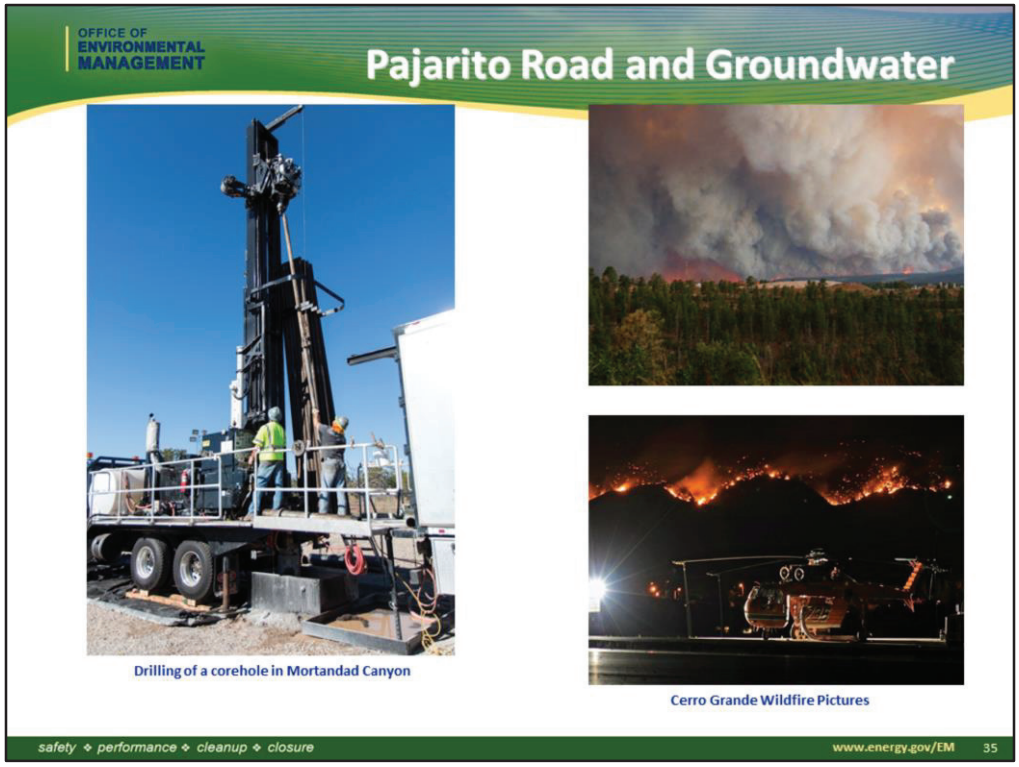
We will have one hour for lunch

Return here to the same bus you left and we will proceed to the Otowi Building entrance to switch speakers on buses.

Group B seeing Transuranic Waste Disposition in the afternoon will be returned to Cities of Gold.

OFFICE OF ENVIRONMENTAL MANAGEMENT

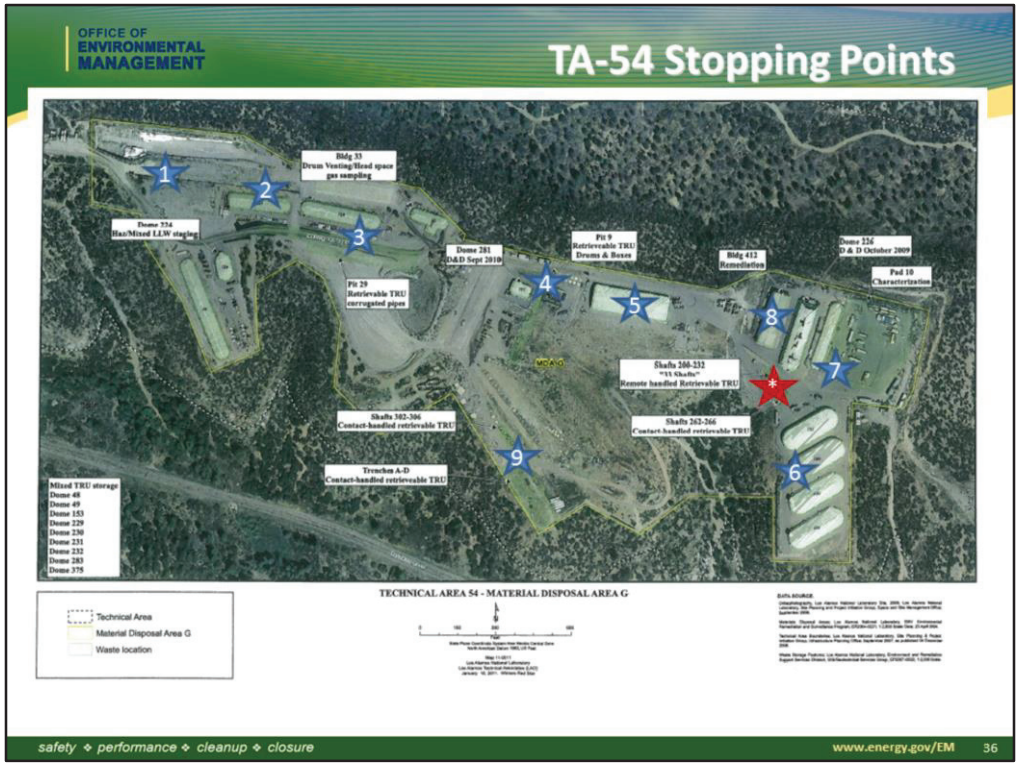
Group B Transuranic Waste Disposition



After passing the security gate:

I would like to point out the well pads that we will pass by on the way to Area G on both the left and right sides of road. These are monitoring locations that support Area G. What you see here is part of the Technical Area 54 Monitoring Group from the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP).

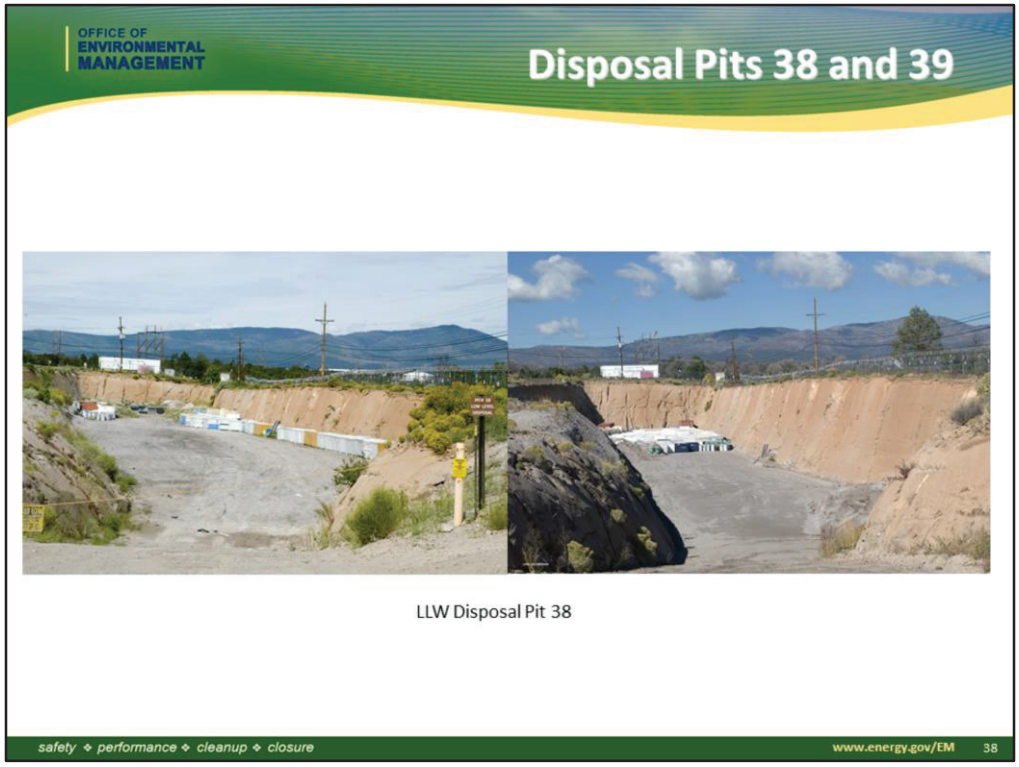
I also want to point out the fire mitigation measures being conducted to reduce the risks from any wildfires from affecting the Transuranic wastes on the mesa above to the right.



Welcome to TA-54, Material Disposal Area G. Area G is a 67 acre Hazard Category II Nuclear Facility it's current mission involves the storage, treatment and repackaging of Transuranic and LLW and MLLW waste and the disposal of Low level Waste. I will highlight the various capabilities as we head down the road.

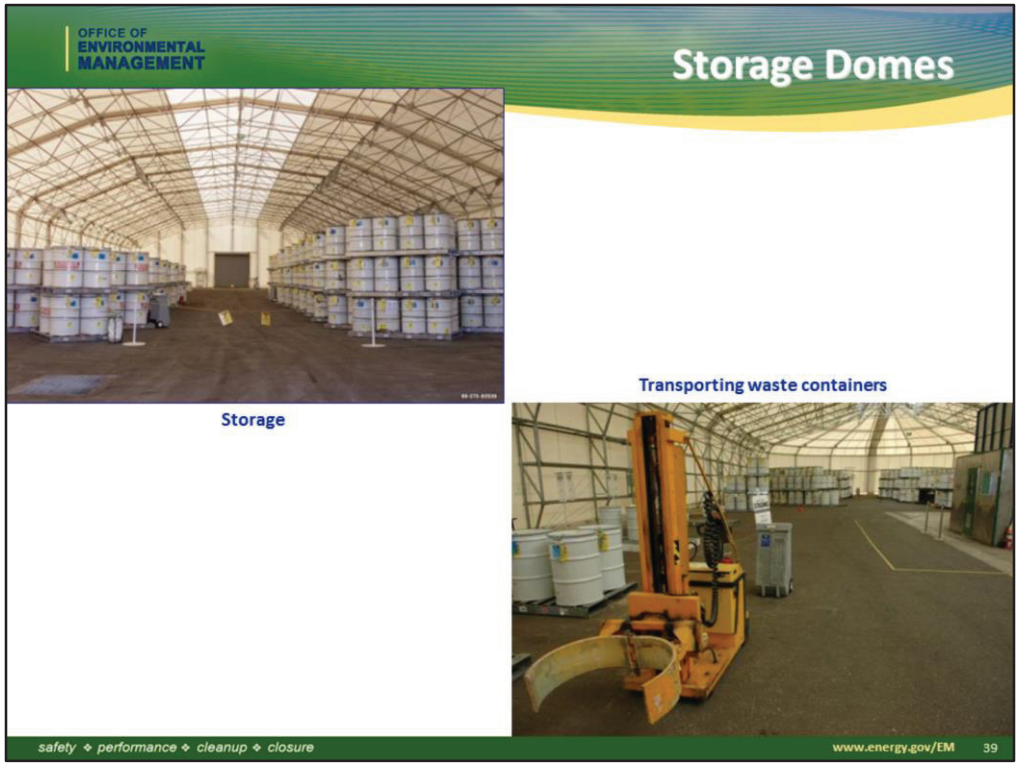
The recent history of Area G started in 1957 as a disposal area for Laboratory generated radioactive waste the disposal area consists of 35 pits, 229 disposal shafts and 4 trenches. Early disposal operations did not distinguish between Transuranic and LLW nor were RCRA hazardous waste requirements involved in those early disposal operations.

* Highlighted in red are the locations of buried wastes. These wastes are described in Section J, Attachment J-17. Note that the 33 Shafts which contain remote-handled TRU at the far right are not included in the scope of this contract.
* In the early 1970's based on an AEC directive the Laboratory started segregation of waste with higher concentrations of transuranic concentrations these areas have been highlighted in the Draft RFP and consist of a series of below grade retrievably stored Transuranic waste areas. Disposal operations are nearing the end of their life. The current plan is to stop disposal operations at Area G at the end of FY-17. This is not an EM mission, it is an NNSA funded activity and legacy waste is projected to be shipped offsite. As we head down the road to the first stop point out the fact that we do have archeological/cultural sites along the way and these are required to be protected this is just one of many unique items that are required to be aware of as we work within Area G.



Star 1 on map

Pause at the disposal pits 38 and 39 these are the last planned disposal pits that will be operated at Area G the intention is for the laboratory to transition to all offsite disposal by the end of FY-17. These pits are currently used sparingly and are being reserved for some problematic NNSA generated waste the draft RFP does not include disposal operations.



Star 2 on map

Continue down the road we will pass domes 49, 224, 283, and 153 storage domes.

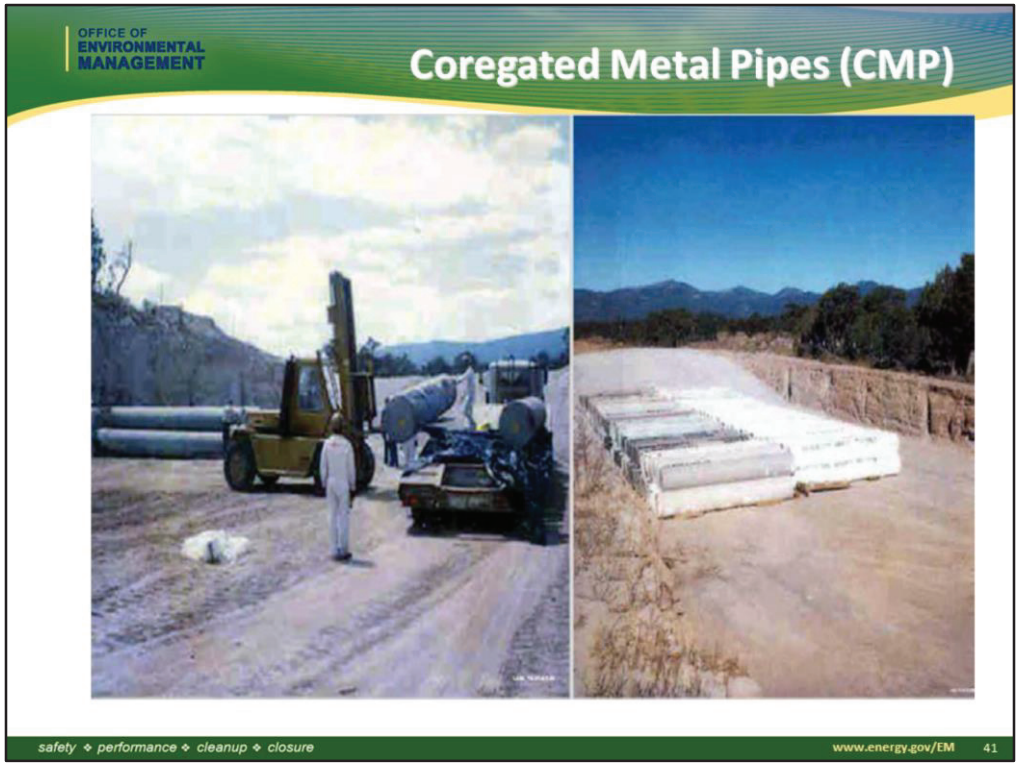
These are simple structures consisting of a steel skeletons covered by fabric coverings on top of asphalt pads. All of the storage domes are RCRA permitted storage areas.

As a rule none of the domes have fire suppression systems exceptions are 230, 33, 412 and the permacons in 231 and 375. There is a water supply loop that runs down the middle of Mesita Del Buey the water is supplied via Pump Station 1, located on Pajarito Road and Pump Station Number 2 located at the end of Mesita Del Buey Road this supplies water to the fire protection systems and potable water to 54-2, 54-11, and 54-33.

Star 3 on map - Building 33 on Left

Drum venting and gas sampling is conducted within this facility. Currently only up to 85 gallon drum containers can be vented in this facility. Anything larger will not fit.

The drum venting equipment is not GFE but is leased item. The contractor shall consider whether this equipment is still required.



Star 3 on map – open area on Left

This is the location where CMPs were laid down and covered. The CMPs will have to be retrieved and taken into a box line to be cut in segments and placed into containers for shipment.

Star 4 on map – Pit 9 on Left

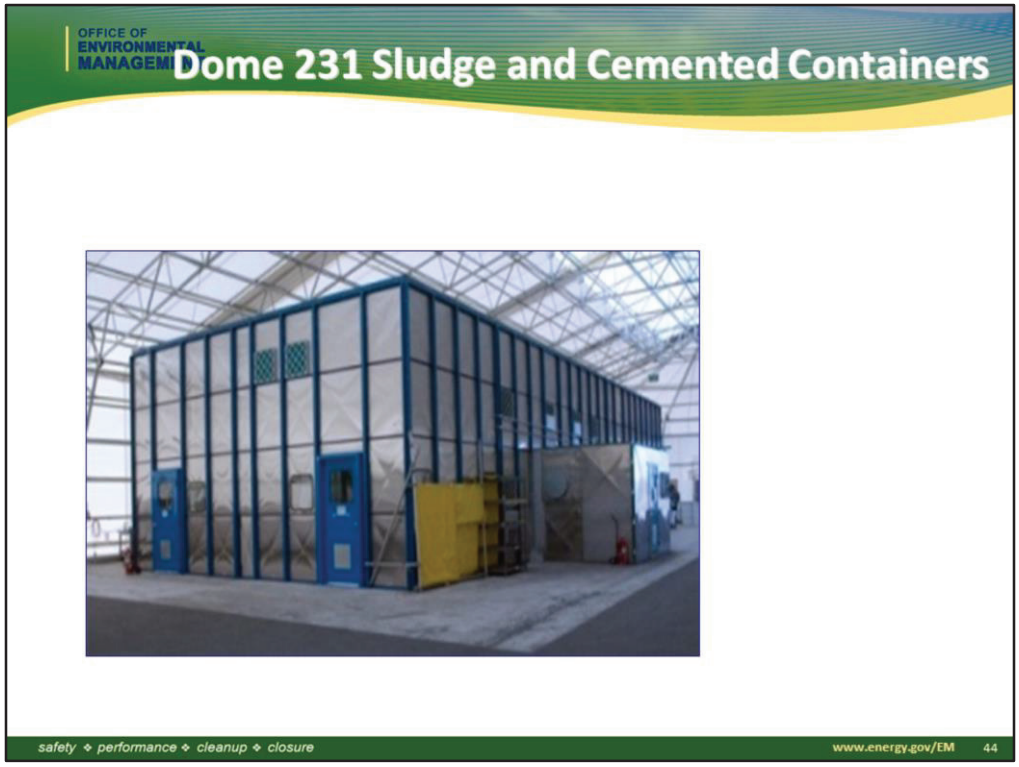
Pit 9 contains drums and boxes that will have to be retrieved and processed through one of the drum or box lines.

Star 5 on map

- As we continue down the road lets pause the buses and point out dome 375, we are going to stay out of 375. Inside of dome 375 is the world's largest Permacon this permacon was constructed to handle and repackage extremely large TRU waste containers.

- It has a future mission to assist in size reduction efforts of large containment vessels, size reduction of the below grade metal Corrugated Metal Pipes and the below grade boxes in pit 9.

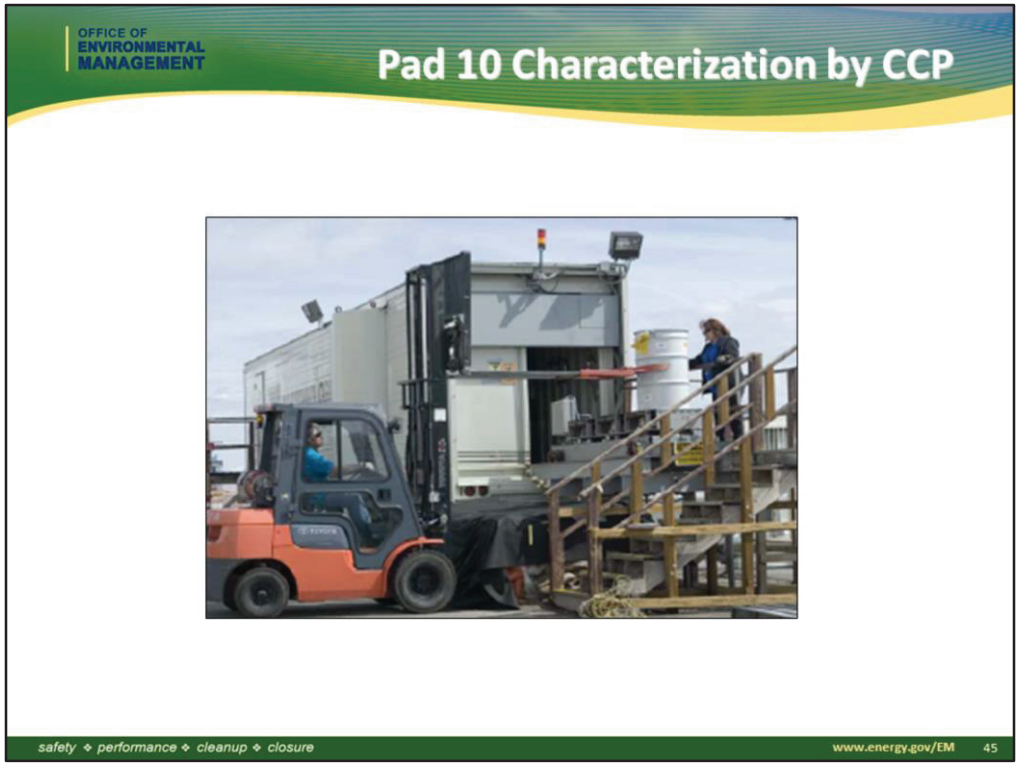
- It currently is the storage location for the Remediated Nitrate Salts pending treatment of the salts the salts are anticipated to be treated before the end of the bridge term so this scope is anticipated to be completed before the award of the legacy clean-up contract.



Star 6

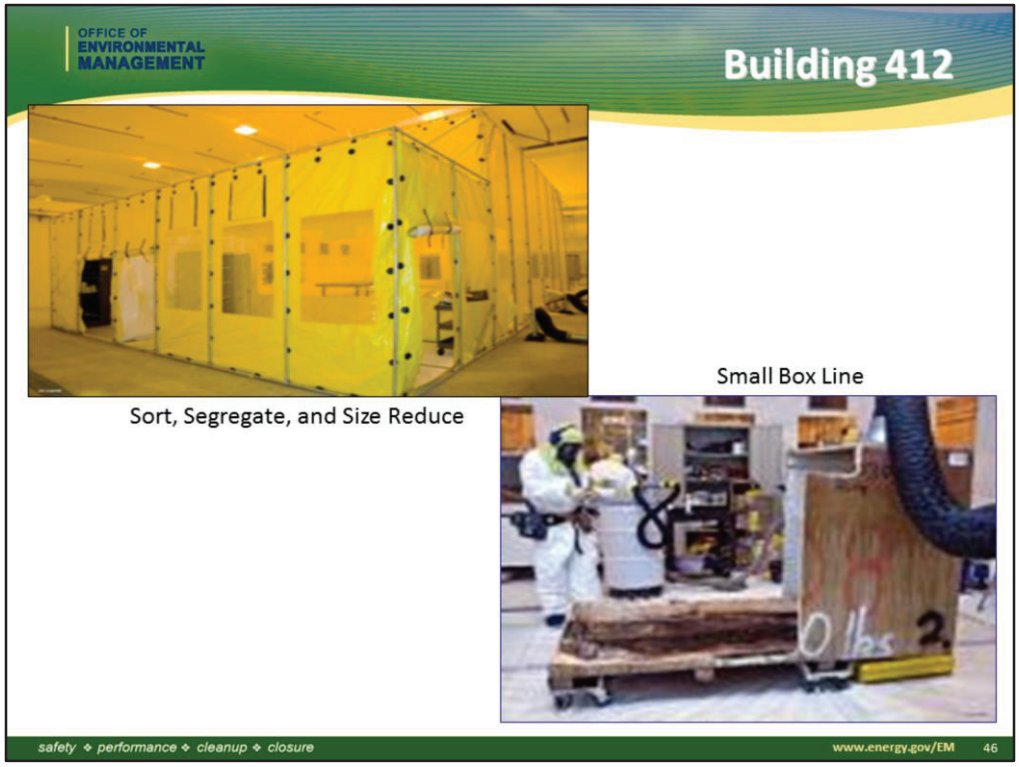
Then we will walk over to dome 231 and walk into the permacon and point our medium sized permacon which has been used to remediate drums and medium sized boxes.

Dome 231 is described as a sort, segregate and size reduction area within the current Technical Safety Requirements. It is equipment with HHEPA filtration, fire suppression, and climate-controls. Similar to Dome 375 except only one bay whereas Dome 375 has three bays.



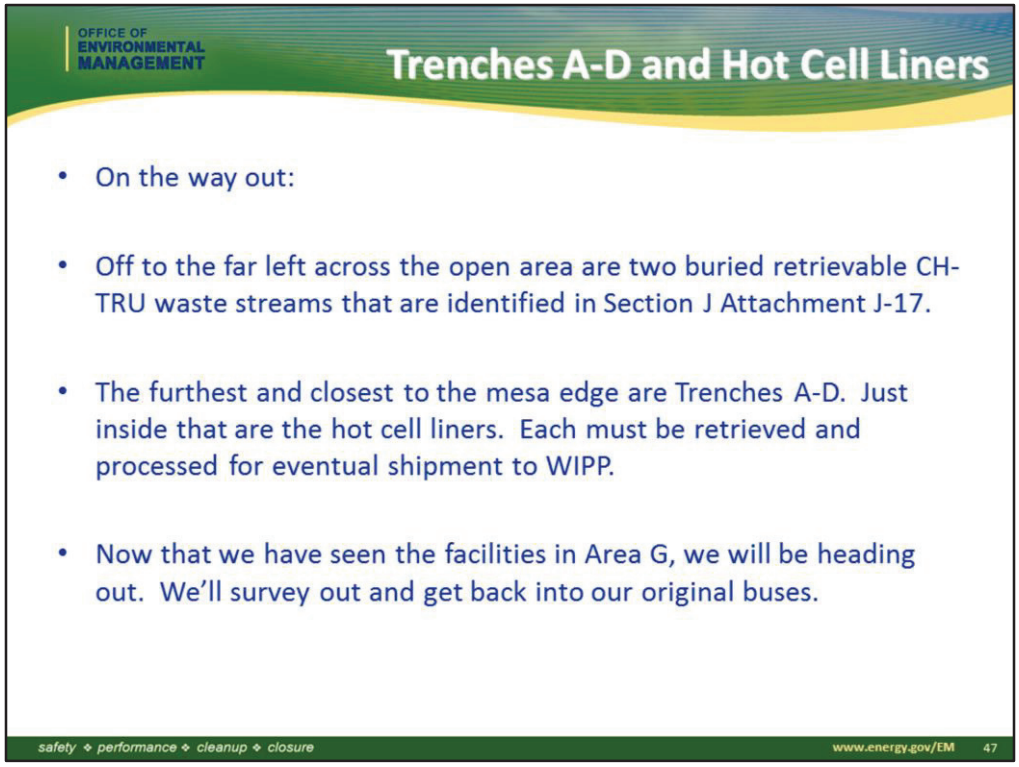
Star 7 on map

After we leave 231 we can walk over to pad 10 and describe the characterization equipment we have on that pad we are currently funding HE-RTR, Super HENC and HENC-1, we also have ISOCS capability in dome 283. We are currently using these tools to characterize LLW and reclassify TRU waste from our inventory.



Star 8 on map

Lastly we should point out Building 412 (the only hard-sided facility in Area G) which houses another contamination control structure in this case a tent which has been used for waste sampling and small box remediation and drum remediation. 412 was originally constructed to size reduce and remediate TRU waste but due to seismic concerns its use has been limited.



Star 9 on map

Off to the far left across the open area are two buried retrievable CH-TRU waste streams that are identified in Section J Attachment J-17.

The furthest and closest to the mesa edge are Trenches A-D. Just inside that are the hot cell liners. Each must be retrieved and processed for eventual shipment to WIPP.

Now that we have seen the facilities in Area G, we will be heading out. We'll survey out and get back into our original buses.

As we are leaving TA-54, stop on the roadway for a second at the

RANT – Radioassay and Nondestructive Testing Facility

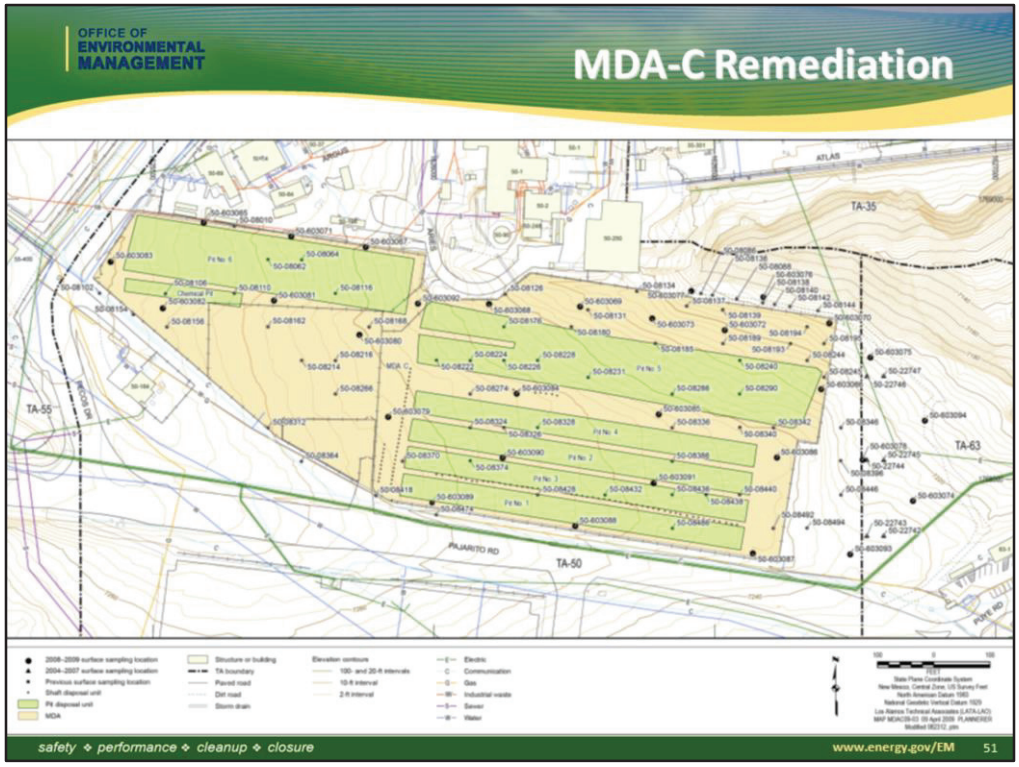
- TA-54, Building 58, 5,360 ft2, Hazard Category 2 Nuclear Facility
- RANT Site is comprised of Building TA-54-38; a fenced, paved yard containing container staging or storage areas; and support facilities. RANT is a two-story building, comprising 5,360 ft2 of floor space that is divided into two high bay areas.
- The Transportation Bay (Room 101) is used as a TRU waste payload-container assembly area and a Type B shipping container loading area.
- The NDA Bay (Room 102) area houses offices, a control room, a radioactive source storage cage, a utility room, an electrical room, and restrooms, and has an attached, covered loading area.

- The Transportation Bay provides 3,116 ft2 of floor space and is equipped with a 5-ton capacity bridge crane. The bridge crane, with various lift rigs and load paths, is used for loading waste containers into Type B transport containers. The Transportation Bay also houses loading platforms and lid stands for each Type B container's inner containment vessel and outer container assembly. A grated trench runs down the center of the bay to collect melting snow &water from the trucks that enter the bay.
- In support of outdoor payload assembly and loading operations, a minimum 18-ton mobile crane with an adjustable center of gravity lifting fixture and a minimum 4-ton forklift are used.

- RANT is an enduring facility and will be retained by NNSA and operated by the M&O after the bridge term.

WCRRF – Waste Characterization, Reduction, and Repackaging Facility

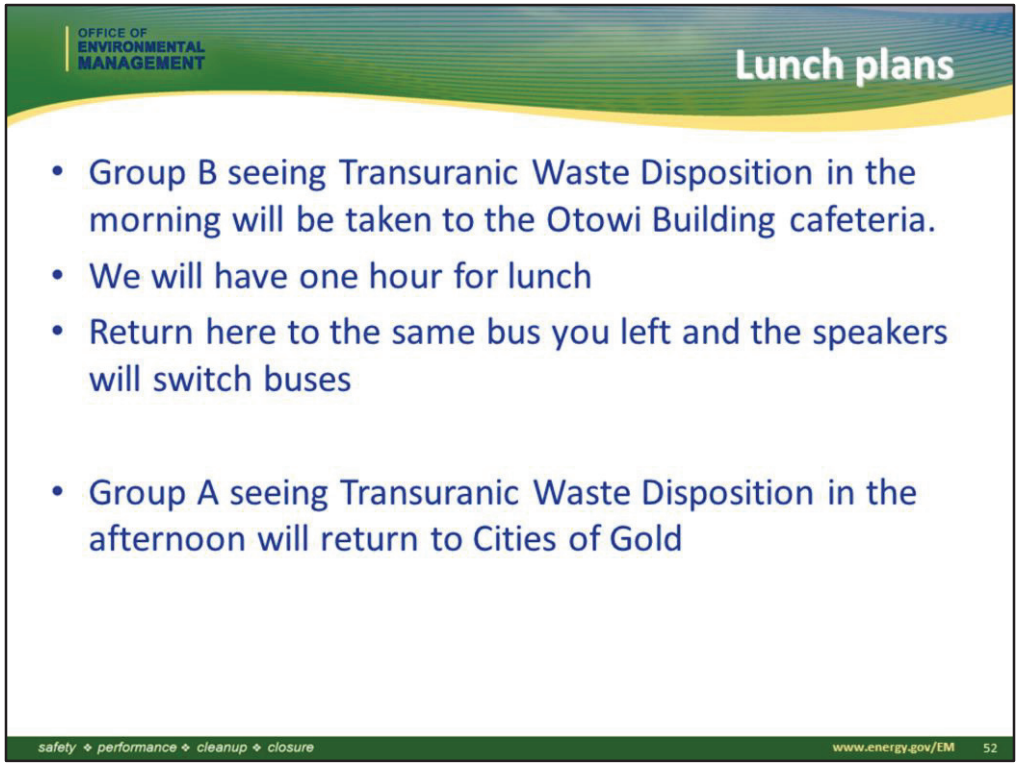
- TA-50, Building 69, one story, 7,000 ft2, Hazard Category 2 Nuclear Facility
- Constructed 1979, modified in mid-1980s to sample, examine, characterize, reduce the volume, and repackage a variety of TRU wastes
- WCRRF is comprised of Building TA-50-69 and a partially fenced, partially paved outside yard containing support facilities, equipment, and TRU waste container (transportainer) staging areas
- WCRRF is the only nuclear facility at LANL that has a ready capability to remediate or repackage TRU waste containers with material-at-risk (MAR) greater than 56 plutonium-239 equivalent curies (PE-Ci)
- Contains the Waste Characterization Glovebox (WCG), and another walk-in glovebox enclosure (not used for TRU waste processing)
- A vehicle air-lock is used to move waste containers and equipment to and from the building
- The WCG has an electronically operated drum lifting device that lifts and rotates the drums to the WCG entry port. A plastic sleeve joins the drum to the glovebox.
- It is EM's intention not to maintain use of this facility beyond the Bridge contract



At the traffic light on Pajarito Road, the fenced grassy area to the north is Material Disposal Area C.

MDA-C is seven buried disposal trenches and several shafts. This site is expected to have a remedy for a evapo-transpirative cover. A Corrective Measures Evaluation was submitted to the New Mexico Environment Department for review. The Contractor will have to work with NMED to obtain a final remedy determination and construct the remedy.

Of big concern is the proximity to the NNSA operating facilities in the TA-50 corridor – immediately behind MDA-C.



Group B seeing Transuranic Waste Disposition in the morning will be taken to the Otowi Building cafeteria.

We will have one hour for lunch

Return here to the same bus you left and the speakers will switch buses

Group A seeing Transuranic Waste Disposition in the afternoon will return to Cities of Gold