Idaho Cleanup Project (ICP) – Site Tour Script, February 25, 2020
Solicitation No. 89303319REM000034

Time	Description	Facility	Type	Narrative
12:00 noon	Bus departs Tingey Administration Building (1776 Science Center Drive, Idaho Falls, ID 83402), en route to Radioactive Waste Management Complex (RWMC) point out Materials and Fuels Complex (MFC) from highway	On road discussion	Show photographs of the Radioactive Scrap Waste Facility (RSWF)	• Show photographs of the RSWF facility to participants on the bus ride out to the (Idaho National Laboratory) INL site. Point out that the Idaho Cleanup Project (ICP) Contractor will not operate RSWF for receipts of Experimental Breeder Reactor (EBR)-II fuel from Idaho Nuclear Technology and Engineering Complex (INTEC), and contract scope related to the Remote Handled Mixed Low Level Waste (RH-MLLW) waste in Lot 11. RH-MLLW waste is retrieved from the RSWF for treatment in the Chemical Processing Plant (CPP)-666 or CPP-659 hot cells. • INL contractor will continue to receive shipments of EBR-II SNF. Remaining shipments will be placed in RSWF and all ERB-II needs to be out of CPP-666 by the end of 2023
1:10 p.m.	Arrive at Radioactive Waste Management Complex - Restroom Break (Bus enters through RWMC gate)	RWMC	Guard house (WMF-637) - RWMC model	• At the RWMC model/maps note the following: – Discuss 2028 closure vision – AMWTP portion of RWMC is a RCRA operation to meet the Idaho Settlement Agreement requirement for the 65,000 m^3 of TRU waste out of Idaho – now passed 2018 ISA milestone date. – Buried waste exhumation and related work at the SDA is CERCLA work under a CERCLA Record of Decision (ROD) and Agreement to Implement court order. Accelerated Retrieval Project (ARP) V is undergoing RCRA closure.

				– ARP VII is where AMWTP TRU sludge waste is repackaged under a RCRA permit in a WIPP compliant configuration. – AMWTP waste was stored above ground on Asphalt pads after 1970 and then the waste was covered with soil. – Point out administrative support area – Point out Subsurface Disposal Area (SDA) – Aquifer protection is a key aspect of environment work. The Aquifer is over 600 feet deep at RWMC. – Point out LLW disposal area, which will be full by the end of the Fluor contract. It will need to be closed under DOE Order 435 in preparation for cap construction. – Point out where ARPs II through IX are located, and point out ARPs I and VI were D&D'd. – Exhumation complete in all but ARP IX. – Discuss evapotranspiration surface barrier design being complete with need to construct by 2028.
1:30 p.m.	Tour Advanced Mixed Waste Treatment Project (AMWTP) Bus drives across bridge from RWMC guard house to	AMWTP	Transuranic Storage Area Retrieval Enclosure Waste Management	• WMF-636 was built over the waste to be retrieved and was permitted for RCRA operations. Retrieval is complete and the building is now used for waste storage. It must be D&D'd to accommodate SDA cap construction.

	AMWTP side. Bus turns right after bridge and then turns South along back side of WMF-636 and follows road around the South road. Turn left at the large propane tank and drive North along the Type 2 buildings and adjacent to the Treatment Facility. Turn left at the end of the row and return to the bridge.		Facilities (WMF)-636	
			Treatment Facility (WMF-676) to left Characterization Facility (WMF-634) to right	• Note that the TRU waste treatment mission is complete and the TF will be D&D'd under this contract • WMF-634 is permitted for storage, but primarily utilized for waste characterization. • Characterization is done in two different Real-Time Radiography (RTR) machine systems. Containers come out of retrieval and come here to determine treatment path. The drums and boxes are assayed to determine radiation levels and are RTR's for prohibited items and the type of waste. Boxes are assayed in the box assay machine. After characterization the waste is determined to be TRU or Mixed Low Level/Low Level Waste (M/LLW). • There is headspace gas sampling equipment on site which is in standby in case of changes to Waste Isolation Pilot Project (WIPP) acceptance criteria (WAC). • There are various container configurations – drums and boxes of various sizes, such as some gray boxes containing shredded box material from the treatment facility. Note that AMWTP is not currently authorized for TRUPAC IIIs. In addition the box assay equipment is not currently certified for TRUPAC IIIs. • Another standby capability is the drum coring machine, which is a glove box that was used for RCRA sampling. Offsite waste from the DOE

				complex (e.g., Hanford) was sampled here prior to a WIPP WAC change that made the core sampling unnecessary. This capability remains in case the WIPP WAC is changed to again require core sampling. • The other Type II RCRA storage facilities (WMF-628 through 633) all look the same, except WMF-628 and 634 are the only Type II storage building that are insulated and heated to maintain the characterization machinery. • Storage capacity in WMF-628 is limited due to Flam Gas equipment and operations in the building.
			Storage and shipping facilities	• Payloads are assembled in building WMF-635 and once approved are ready for transfer to the WMF 618 building. • TRUPAC trailers are staged between 636 and 635 • The small blue building (WMF-618) is used for loading waste into TRUPACT IIs on semi-trailers. Two trailers can be loaded at one time. TRUPACT IIs remain on the trailers at all times during the loading process.
2:15 p.m.	Subsurface Disposal Area tour- Includes; Accelerated Retrieval Project VII air lock and Closed Circuit Television (CCTV) trailer	RWMC Subsurface Disposal Area (SDA)	SDA and Accelerated Retrieval Project (ARP) facilities	• While approaching the SDA, point out building (WMF-602) where Idaho State Police do their inspection of TRUPACT II trailers before they leave the site.

	Bus enters Subsurface Disposal Area and turns left and drives South along access road around fenced area with crane. Turning right around fenced area and following access road. Turn left toward operations trailers and WMF-1619. Bus turns around in the parking area. Bus returns to RWMC guard gate.	RWMC-SDA	ARP- V	• ARP V is in RCRA closure and will be ready for D&D
		RWMC-SDA	Navy RH-LLW Vaults	• Point out the Navy RH-LLW vaults. Explain that these should full in 2021 and will need to be closed under this contract.
		RWMC-SDA	ARP- II, III, IV	• ARP II, exhumation is complete and is operational and providing support to the ARP-IX facility by use of the passage way between the two. • ARP – III and IV are ready for D&D as soon as we are done with the operations in II
		RWMC-SDA	ARP- I and VI	• ARP I and VI have been D&D to make room for the ARP-IX building. This demonstrated that we could build, exhume, close and D&D the ARPs with no release to the environment.
		RWMC-SDA	ARP VII and APR-IX	• Point to ARP VII (airlock) – note the following: – Highlight ongoing sludge repackaging in ARP-VII. ARP-IX is the last of the buried targeted waste. Both are processed the same process once the waste reaches the DPS – Personnel do Visual Examination portion of waste certification process in DPS. – The personnel currently performing Visual Examination of exhumed buried waste are Central Characterization Project (CCP) personnel; – Waste drums are brought in through the maintenance bay. The drums are emptied into the large trough in the retrieval enclosures. Excavator operators empty the drums, add

				inorganic clay-based absorbent, and put the waste in smaller trays to transport it to the DPSs where it is processed similar to how the buried waste is processed. Emptied drums are crushed and placed in waste boxes and shipped for disposal as M/LLW. • The excavator operator and the CCTV (Closed Circuit TV) specialist work together to determine how much absorbent needs to be added to the waste in the trough before placing it the waste trays for transport to the DPS.
		RWMC	ARP –IX and CCTV trailer-24	• Point out ARP IX and Closed Circuit TV (CCTV) trailer-24 – note the following: – Targeted waste removal from 5.69-acres by exhumation requirement were originally identified through negotiation with regulatory agencies to ensure removal of the material presenting the highest environmental risk - principally uranium and plutonium isotopes - with expectation of removing significant organics as well. This is documented in the Agreement to Implement and the OU 7-13/14 CERCLA ROD. – Personnel in CCTV are in communication with equipment operators to direct the operation. They have monitors displaying heat spectrum from infrared camera. – ARP-IX exhumation will continue until the end of calendar year 2021. • Note that the CERCLA-required SDA cap will have a footprint of over 150 acres to ensure a minimum 10-foot cover over the 97-acre SDA footprint

				• Refer to pictures in hand out for CAP footprint
		RWMC-SDA	ARP-VIII	– ARP VIII, exhumation is complete and is operational and providing support to the ARP-VII and ARP-IX facility by use of the passage way between the two.
3:00 p.m.	Travel to INTEC	Point out the Gun Range, Central Facilities, Fire Department, Medical, Big Shop, and sub stations all operated by the INL contractor		
	Idaho Nuclear Technology and Engineering Complex Restroom Break - **Guard house** **Patrons de-board and bus enter through INTEC access gate. Patrons re-board**	INTEC	Tank Farm	• Point out the Tank Farm. • Explain that 11 tank are closed • Four Remaining tanks are where the Sodium Bearing Waste is location that will be transferred over the IWTU through the CPP-659 building. IWTU will treat all of the 900,000 gallons left and then these last four remaining tanks will need to be RCRA closed and a cap placed over the tank farm
3:15 p.m.	Idaho Nuclear Technology and Engineering Complex **Bus Direction next page**	New Waste Calcining Facility (CPP-659)	RH-TRU and RH-MLLW Operations	• CPP-659 (New Waste Calcine Facility) was originally used to calcine high level liquid waste from the INTEC Tank Farm. The facility is now used to repackage RH-TRU and RH-MLL waste that

	Bus drives North from guard house on RedWood and turns right on Cypress to Hemlock. Turn Right on Hemlock to Ash. Turn Right on Ash to Birch. Turn left on Birch and drive to end of lane. Turn around in parking area at CPP-603 and return to guard house. Patrons disembark and bus exits through access gate and picks up patrons at guard house, CPP-1686.			is small enough to fit into the hot cell and is limited to a rad dose rate of 5 R per hour at 30 cm. The hot cell is limited to containers that are less than 10 feet long. RH-TRU and RH-MLL waste that can be repackaged in CPP-659 will enter the building through a roll-up door on the south end of the building and is picked up by a crane and brought into the building for repackaging and characterization. The RH-TRU and RH-MLL waste from CPP-666 that has been repackaged enters CPP-659 the same way. All RH-TRU waste is characterized in CPP-659 and eventually certified for shipment. The RH-TRU waste is also loaded into RH-72B casks for shipment to WIPP. All piping to Integrated Waste Treatment Unit (IWTU) from the Tank Farm passes through CPP-659.
3:30 p.m.		INTEC Calcine IWTU PEWE LET&D		• Point out calcine bins • Point out IWTU – Will Show IWTU video on the way back to town • Point out Process Equipment Waste Evaporator (PEWE) and Liquid Effluent Treatment & Disposal (LET&D), which are to be RCRA closed per PWS Section C.6.
		Fluorinel Dissolution Process and Fuel Storage	RH-TRU and RH-MLLW in the FDP	• FDP cell (large hot cell) is used for RH-TRU and RH-MLLW repackaging and has a ongoing mission. • The wet SNF storage pool fuel basins are 40 feet deep and are stainless-steel lined.

		Facility (CPP-666) - Includes FDP hot cell, spent nuclear fuel basins	SNF in the fuel basins	• Three types of SNF discussed (Navy Nuclear Propulsion Project (NNPP), Advanced Test Reactor (ATR), and EBR II). Main work is the NNPP fuel returns by 2018 (scope completed), then ATR and EBR II. The EBR II fuel trays have 8 bottles per tray and 2 trays in a shipment for a total of 16 bottles per shipping. • EBR II scope is to remove 3336 bottles of SNF from the basin, load into a transport cask, transport to MFC, and turn over the INL contractor. • ATR fuel that is currently in the storage basin is being removed from the storage basin, dried, and placed in dry storage. • We are committed to remove all SNF from wet to dry storage per the Idaho Settlement Agreement by the end of calendar year 2023.
		CPP-749 CPP-1617 etc	SNF dry storage in vaults and RH-TRU and RH-MLLW storage areas	• Point out Three Mile Island (TMI) spend fuel dry storage area • Point out CPP-749, underground dry storage vaults for Spent Nuclear Fuel. Looks very similar to RSWF facility at MFC. • Point out M/LLW storage area in CPP-1617 (CPP-1617 is an outdoor fenced in asphalt pad for storage) • Point out Interim Storage Containers (ISC) for RH-TRU waste storage and stored sleeves used at RSWF.

	Drive by New Waste Calcining Facility (CPP-666)	CPP-603		• 603 is air-cooled and low temperature. • CPP-603 was the original wet storage basin from the 1950's. The wet storage basins have been closed and grouted in place. CPP-603 also has a dry storage vault currently in use and partially filled. It contains some of the spent fuel from Fort St. Vrain and the ATR spent fuel. • ATR fuel receipts – the ICP Core contractor will continue to receive up to 15 shipments of ATR spent fuel per year from the INL contractor for placement into dry storage at CPP-603.
		Idaho CERCLA Disposal Facility	CERCLA Landfill and Evaporation Ponds	Note the following at ICDF: • ICDF has two basic parts, the two, lined evaporation ponds and the landfill. • ICDF is for disposal of onsite CERCLA waste, including from D&D under a CERCLA non-time critical removal action. • The ponds have been used for disposal of water from emptying Spent Nuclear Fuel basins. They are currently used mainly for disposal of purge water from groundwater monitor well sampling. • The landfill is over 70% full. A new disposal cell will need to be constructed early in the contract period. • The landfill is currently being used to dispose of soils from AMWTP waste retrieval operations (e.g., firebreaks) and to dispose of empty cargo containers that were used to store waste at AMWTP. • Note that the ICP contractor will operate ICDF.

4:30	INTEC Guard House **Restroom Break**	Discuss Fort St. Vrain and NRF D&D, WAG 10 on ride back to town			
4:40 p.m.	Depart INTEC for Idaho Falls. Drive by Idaho CERCLA Disposal Facility (ICDF) as returning to town	N/A			
4:50 p.m.	Depart INTEC for Idaho Falls				
6:00 p.m.	Arrive at Idaho Falls Tingey Administration Building (1776 Science Center Drive, Idaho Falls, ID 83402)				