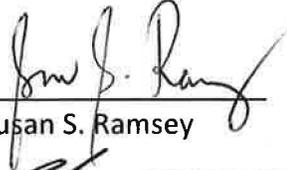
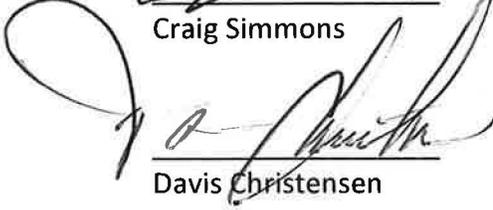
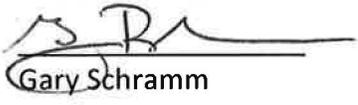
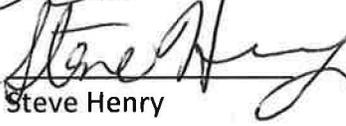
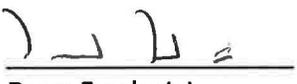


## Solution Package Scope Definition

# REPORT-72, Salt Waste (SP #72) Rev 1

Developed By:	 Susan S. Ramsey	<u>7/3/12</u> Date
CCP Review:	 Craig Simmons	<u>7/9/12</u> Date
Approved By: Tech Solutions	 Davis Christensen	<u>7/9/12</u> Date
Disposition Project Owner	 Mark Shepard	<u>7/11/2012</u> Date
EH&Q	 Gary Schramm	<u>7-16-12</u> Date
Shipping and Safe Storage	 Scott Miller	<u>7/17/12</u> Date
FOD	 Steve Henry	<u>7/11/12</u> Date
Projects/ Services	 Dave Frederici	<u>07.11.2012</u> Date
WDP Program	 Steve Clemmons	<u>7/12/12</u> Date

## ***Inventory Description***

The legacy TA-55 unconsolidated, nitrate salts are defined here as unconsolidated waste evaporator salts and evaporator bottoms that were generated at TA-55. Evaporator salts and evaporator bottoms were generated continuously from nitrate recovery operations at TA-55, PF-4 since the beginning of plutonium operations in 1979. Evaporators are used to re-concentrate plutonium, if possible, or to reduce the volume of liquid waste. The time frame for non-cemented nitrate salt is from the onset of plutonium operations (1978-1979) to late 1991. Since late 1991, all nitrate salts generated from the evaporator process are sent to cement fixation.

The table below shows the type and number of containers with unconsolidated nitrate salt wastes. A CCP Nonconformance Report (NCR-LANL-0509-09) was issued for drums with uncemented, evaporator nitrate salts to be re-evaluated for re-assignment by CCP. As of May 14, 2012, three hundred and five (305) containers are included in this solution package (SP) report. All 305 containers will be evaluated by CCP during container certification prior to shipment to WIPP and will be reassigned to the appropriate AK waste stream, as required. Two hundred and ninety-two (292) are in the Governor's Goal (GG). A revision to this report may be required if the scope of the remediation activities change sufficiently.

<b>Legacy/NG</b>	<b>Waste Stream</b>	<b>Container Type</b>	<b>Count of Container Type</b>	<b>Sum of PE-Ci</b>	<b>Sum of Volume</b>
<b>Legacy</b>			<b>305</b>	<b>1669</b>	<b>71</b>
	<b>LA-CIN01.001-Cans</b>		<b>31</b>	<b>149</b>	<b>8</b>
		55-GAL	19	79	4
		85-GAL	12	70	4
	<b>LA-MHD01.001</b>		<b>269</b>	<b>1505</b>	<b>63</b>
		55-GAL	103	715	21
		85-GAL	59	623	19
		POC	107	167	22
	<b>LA-MIN04-S.001</b>		<b>5</b>	<b>15</b>	<b>1</b>
		55-GAL	1	4	0
		POC	4	11	1
<b>Grand Total</b>			<b>305</b>	<b>1669</b>	<b>71</b>

Note: Data is as of 14 May 2012

## ***AK Waste Stream***

### **Waste Stream LA-MHD01.001 (Heterogeneous Debris)**

#### **Waste Stream Description:**

Waste stream LA-MHD01.001 consists of mixed heterogeneous debris waste generated during plutonium recovery, fabrication, R&D and associated facility and equipment maintenance, decontamination and decommissioning (D&D), waste repackaging, and below-grade retrieval operations. The debris waste includes paper, rags, plastic, rubber, wood-based high-efficiency particulate air (HEPA) filters, other plastic-based and cellulose-based items, noncombustible items such as metal and glass, and lesser quantities of homogeneous solids (less than 50 percent by volume) contaminated with nuclear materials such as americium oxide. Plastic-based waste includes (but may not be limited to): tape, polyethylene and vinyl, gloves including leaded gloves, plastic vials, polystyrene, Tygon tubing, polyvinyl chloride plastic, Teflon products, Plexiglas, and dry-box gloves (unleaded neoprene base). Cellulose-based waste includes (but may not be limited to): rags, wood, paper, cardboard, laboratory coats, coveralls, booties, cotton gloves, and similar materials. Noncombustible debris waste includes (but may not be limited to): bottles, cans, composite HEPA filters, crucibles, equipment, fluorescent bulbs, glass, gloveboxes, glovebox windows, graphite, metal pipes, miscellaneous labware, motors, pumps, slag, small tools, and ventilation ductwork. Homogeneous solid waste includes: hydroxide cake/filter materials, salts, and ash residues. Hydroxide cake/filter materials are composed of precipitated materials such as americium (Am), cadmium, calcium, chromium, iron, lead, magnesium, mercury, neptunium, plutonium (Pu), potassium, silver, sodium hydroxide, thorium, and uranium (U). Salt waste can include varying mixtures of calcium chloride, cesium chloride, lithium chloride, magnesium chloride, potassium chloride, sodium chloride, zinc chloride, residual entrained calcium and zinc metal, and various plutonium and americium compounds. Ash residues originate from the thermal reduction of organic-based waste products that were contaminated with plutonium (e.g., plastics, rubber, wood, cellulose, and oils) and may include incomplete combustion products such as small pieces of plastic and metal debris items. The waste stream also includes a small fraction of absorbent materials which may include Ascarite, diatomaceous earth, vermiculite, or zeolite with trace contamination (less than one weight percent [wt. %]) of absorbed materials such as waste oils and organics. Any payload container consisting of more than 50 percent by volume of homogeneous solids will be excluded from this waste stream.

The waste stream contains Resource Conservation and Recovery Act (RCRA)-regulated constituents and is assigned the following EPA Hazardous Waste Numbers (HWNs): F001, F002, F005, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, and D040. This waste stream may also include wastes containing or contaminated with polychlorinated biphenyls (PCBs).

Prohibited items are known to be present in the waste stream. Procedures allowed containers greater than four liters, sealed with tape, to be used for waste packaging until LANL WIPP-approved procedures were implemented. Small vials of liquids and unpunctured aerosol cans also have been observed. Lead shielding is often used to increase handling safety, and thick shielding can obscure RTR observations. Additionally, based on interviews with site personnel performing VE and prohibited item disposition repackaging, internal cans (both shielded and unshielded) have been measured for dose rate during repackaging and found to contain waste with radiation levels exceeding 200 millirem per hour (mrem/hr). Waste packages containing prohibited items identified during characterization activities will be segregated then dispositioned appropriately and/or repackaged to remove the items prior to certification and shipment.

**Waste Stream LA-CIN01.001 (Homogeneous Cemented)****Waste Stream Description:**

Waste Stream LA-CIN01.001 consists of solidified homogeneous solid waste (cemented TRU Waste) generated during plutonium recovery, fabrication, R&D and associated facility and equipment maintenance, D&D, waste repackaging, and below-grade retrieval operations. The waste includes cemented materials such as aqueous and organic liquids from analytical chemistry, americium oxide, ash, calcium chloride salts, chloride solutions, evaporator bottoms, filter aid, filter cakes, plutonium/uranium filings and fines, glove box sweepings, graphite powder, HEPA filter media, leached ash residues, leached particulate solids (e.g., ash, sand, slag, and crucible parts), oxides (e.g., americium, metal, and uranium), miscellaneous oils (e.g., pump oil), silica solids, solvents, spent ion exchange resins, trioctyl phosphineoxide and iodine in kerosene, and uranium solutions. Containers generated from October 2006 to present are mixed with cement in a rigid plastic mixing container, which is contained in a single, ~12-mil thick, plastic liner bag. A plastic bag skirt of the same material is attached to the mixing container on the inside of the drum-out bag for contamination control. The bag skirt is pushed down into the container once the mixing is complete to expose a clean drum-out bag. The drum-out bag is gathered into a tight bundle, sealed with tape and two plastic cable ties, and cut to remove the drum from the glove box.

Based on the review of container documentation and documented waste management practices, no prohibited items were specifically identified in the waste stream, except the potential for prohibited quantities of liquid due to dewatering. In addition, the results of available headspace gas sampling and analysis of 50 drums in this waste stream indicated that FVOCs are not present in significant amounts. The total FVOCs measured for each of the drums is well below 500 ppm. Based on the final waste form and sample data, containers in waste stream LA-CIN01.001 are not expected to exceed a total FVOC concentration of greater than or equal to 500 ppm. The two predominant isotopes by mass for waste stream LA-CIN01.001 are Pu-239 and U-238, and over 95 percent of the total activity is from Am-241, Pu-238, Pu-239, and Pu-241.

**Waste Stream LA-MIN04-S.001 (Salt Waste)****Waste Stream Description:**

Waste stream LA-MIN04-S.001 consists of inorganic homogeneous solid waste generated during plutonium recovery, fabrication, R&D and associated facility and equipment maintenance, D&D, waste repackaging, and below-grade retrieval operations. The waste is largely comprised of salts which are a byproduct from a variety of plutonium metal purification operations including electrorefining, molten salt extraction, salt stripping, fluoride reduction, and direct oxide reduction. Salts serve as a transportation vehicle for plutonium ions and provide a trap for impurities that are driven or extracted out during the purification process. Salt waste can include varying mixtures of calcium chloride, cesium chloride, lithium chloride, magnesium chloride, potassium chloride, sodium chloride, zinc chloride, residual entrained calcium and zinc metal, and various plutonium and americium compounds. The waste may also be contaminated with solvent metals and reagent materials such as barium, bismuth, cadmium, calcium carbonate, gallium, lead, molybdenum, niobium, tantalum, titanium, tungsten, vanadium, yttrium (Y), and zirconium. Salts can be cemented and disposed of in waste stream LA-CIN01.001; however, the salts disposed of separately under this waste stream are uncemented. A small

fraction of debris waste (mainly plastic and metal packaging) and magnesium oxide crucible pieces may also be present. Any payload container consisting of more than 50 percent by volume of heterogeneous debris will be excluded from this waste stream.

The waste stream contains RCRA-regulated constituents and is assigned the following EPA HWNs: F001, F002, F005, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, and D040. This waste stream does not include wastes containing or contaminated with PCBs.

Based on the review of container documentation and documented waste management practices, no prohibited items are specifically identified in the waste stream. However, procedures allowed containers greater than four liters, sealed with tape, to be used for waste packaging until LANL WIPP-approved procedures were implemented. Lead shielding is often used to increase handling safety, and thick shielding can obscure RTR observations. Additionally, based on interviews with site personnel performing VE and prohibited item disposition repackaging, internal cans (both shielded and unshielded) have been measured for dose rate during repackaging and found to contain waste with radiation levels exceeding 200 mrem/hr. Waste packages containing prohibited items identified during confirmation activities will be segregated then dispositioned appropriately and/or repackaged to remove the items prior to certification and shipment.

### ***Material Type***

All containers are expected to be the same Material Type (weapons grade). On a waste stream basis, the two predominant isotopes by mass for waste stream LA-MHD01.001 are Pu-239 and uranium (U)-238, and over 95 percent of the total activity is from Pu-238, Pu-239, and Pu-241. The two predominant isotopes by mass for waste stream LA-MIN04-S.001 are Pu-239 and Pu-240 while over 95 percent of the total activity is from Pu-238, Pu-239, Pu-240, and Pu-241.

### ***Volume, MAR, FGE and Weight (Average and Max)***

<b>Waste Stream</b>	<b>Container Type</b>	<b>Count</b>	<b>Ave. PE-Ci</b>	<b>Max PE-Ci</b>	<b>Ave. EC PE-Ci</b>	<b>Max EC PE-Ci</b>	<b>Max Gross Weight</b>	<b>Max Dose</b>
<b>LA-CIN01.001-</b>								
<b>Cans</b>		<b>31</b>	<b>4.81</b>	<b>19.16</b>			<b>578</b>	<b>40.0</b>
<b>LA-MHD01.001</b>		<b>269</b>	<b>5.59</b>	<b>25.65</b>	<b>2.45</b>	<b>6.41</b>	<b>812</b>	<b>190.0</b>
	55-GAL	103	6.94	18.36	2.29	4.59	556	120.0
	85-GAL	59	10.55	25.65	2.64	6.41	812	190.0
	POC	107	1.56	5.44			439	55.0
<b>LA-MIN04-S.001</b>		<b>5</b>	<b>2.95</b>	<b>4.26</b>			<b>380</b>	<b>20.4</b>

55-GAL	1	4.26	4.26			266	20.4
POC	4	2.63	3.42			380	1.8
<b>Grand Total</b>	<b>305</b>	<b>5.47</b>	<b>25.65</b>	<b>2.45</b>	<b>6.41</b>	<b>812</b>	<b>190.0</b>

Note: Volume = cubic meters (M<sup>3</sup>); weight = Lbs; Dose = total surface dose rate (mrem/hr)

None of the drums exceed WCRRF limits for PE-Ci, EC PE-Ci or weight. The weight of drum S870065 was recorded as 812 pound (lbs), it was re-weighed in May 2012 and the new weight is 440 pounds, which does not exceed 624 lbs. weight limit for WCRRF. The database will be updated to reflect the new weight for this drum.

### ***Disposition Strategy***

The population of SP#72 now consists entirely of containers with known or suspected nitrate salts. A thorough review of generator records over the time period 1979 to 1991 was conducted to identify this population. Approximately one-third of the population consists of daughter containers that were remediated for high dose, impenetrable or prohibited items at WCRRF prior April 2012. In May 2012 the LANL Carlsbad Office Difficult Waste Team authored a white paper (*Amount of Zeolite Required to Meet the Constraints Established by the EMRTC Report RF 10-13: Application to LANL Evaporator Nitrate Salts*, May 08, 2012), agreed to by the DOE June 14, 2012, that established the requirement that a minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts (in existing parent and daughter containers) in order for the WIPP to affirm that the final mixture of LANL nitrate salts can be considered a non-oxidizing solid. The mixing recipe (1.2:1) techniques affect the entire population of three hundred and five (305) parent and daughter containers in SP#72.

There are approximately twenty-three (23) drums in this package that are unvented and will require venting and installation of HEPA filters prior to remediation. There are also approximately twenty-six (26) drums that have conflicting information as to whether the drums contain unconsolidated or cemented salt. The latter will be presented to HE-RTR to discriminate the waste configuration prior to submittal to WCRRF for remediation. The objective is to remediate the entire population of nitrate salt containers so that they meet the CCP certification requirements for shipment to WIPP.

### ***Disposition Path***

The table below details the number and container types and expected pathways for unconsolidated nitrate salts, based on prior RTR screening results and other existing data in the container management database (as of May 14, 2012).

Count	Container Type	Description	Path
33	55-Gal	Daughter containers from previous repack campaign	<ul style="list-style-type: none"> <li>• Submit for pre-screen thru RTR (to determine presence of homogeneous nitrate salt)</li> <li>• Transfer failed drums (with identified nitrate salt) to WCRRF for remediation</li> <li>• Mix nitrate salt waste with at least 1.2 volumes of kitty litter/zeolite</li> <li>• Package in 55-gal drum, as needed</li> </ul>
111	POC	Daughter containers from previous repack campaign	<ul style="list-style-type: none"> <li>• Transfer to WCRRF for remediation</li> <li>• Mix nitrate salt waste with at least 1.2 volumes of kitty litter/zeolite</li> <li>• Package in 55-gal drum or POC, as needed</li> </ul>
41	85-Gal	55-gal Parent (original) containers in overpacks	<ul style="list-style-type: none"> <li>• Evaluate container integrity and certification for transfer</li> <li>• Re-overpack drums as needed</li> <li>• Transfer to WCRRF for remediation</li> <li>• Mix nitrate salt waste with at least 1.2 volumes of kitty litter/zeolite</li> <li>• Package in 55-gal drum or POC, as necessary</li> </ul>
71	55-Gal	Parent (original) containers	<ul style="list-style-type: none"> <li>• Evaluate container for transfer integrity and certification, and re-overpack drums as needed</li> <li>• Transfer to WCRRF for remediation</li> <li>• Mix nitrate salt waste with at least 1.2 volumes of kitty litter/zeolite</li> <li>• Package in 55-gal drum or POC, as necessary</li> </ul>
23	85-Gal	Unvented 55-gal parent (original) containers in overpacks	<ul style="list-style-type: none"> <li>• Submit to HE RTR pre-screen to confirm that inner 55-gal drum is unvented</li> <li>• Vent drums at Dome 33 (<math>\geq</math>HC3), as required</li> <li>• Evaluate container for integrity and certification, and re-overpack, as required</li> <li>• Ensure inner, 55-gal drum has WCRRF approved filter</li> </ul>

			<ul style="list-style-type: none"> <li>• Transfer to WCRRF for remediation</li> <li>• Mix nitrate salt waste with at least 1.2 volumes of kitty litter/zeolite</li> <li>• Package in 55-gal drum or POC, as needed</li> </ul>
26	7 85-Gal 19 55-Gal	Suspect cement cans or nitrate salts	<ul style="list-style-type: none"> <li>• Submit to HE-RTR pre-screen (to confirm vented inner container and cement cans)</li> <li>• Submit unvented nitrate salt drums to Dome 33 (<math>\geq</math>HC3), vent and install filters, as required</li> <li>• Evaluate container integrity and certification for transfer</li> <li>• Ensure inner, 55-gal drums have WCRRF approved filter</li> <li>• Transfer nitrate salt waste drums to WCRRF for remediation</li> <li>• Mix nitrate salt waste with at least 1.2 volumes of kitty litter/zeolite</li> <li>• Package in 55-gal drum or POC, as needed</li> <li>• Submit confirmed, vented cement cans to CCP for pre-certification</li> <li>• Transfer unvented, cement cans to SP#57 for processing</li> </ul>
<b>305</b>	<b>Total Containers</b>		

Note: Data is as of May 14, 2012

There are thirty-three (33) 55-gal daughter containers of nitrate salt wastes that were mixed with Waste Lock 770® during a previous repack campaign. The previous remediation campaign resulted in the generation of 55-gallon and POC containers. The 55-gal daughter drums are likely to contain the debris, consisting of plastic, lead liners and other miscellaneous debris wastes from the WCRRF glovebox activities. Although thought to be unlikely, some drums may contain bagged nitrate salt with the debris. These 55-gal drums are proposed to go through pre-screening using the RTR to determine the presence of homogeneous nitrate salts. Based on RTR pre-screen results, each container may either go to WCRRF for remediation if the drum contains debris wastes and nitrate salts, or may be submitted directly to CCP for pre-certification if the drums contain entirely debris wastes. If these drums are classified as debris wastes, re-assignment to another AK waste stream may not be required. For estimating purposes, all drums are assumed to go to WCRRF and two (2) 55-gal drums will be generated for each daughter remediated. All of the resulting 66 containers will then be submitted for certification.

There are one hundred and eleven (111) POC daughter containers of nitrate salt wastes that were mixed with Waste Lock 770® during a previous repack campaign. These containers are proposed to proceed directly to WCRFF to be remediated in accordance with a new or revised procedure to ensure the final mixture meets or exceeds Carlsbad's mixing requirements (each liter of composite nitrate salt waste is to be mixed with at least 1.2 liters of zeolite/kitty litter). The resulting mixture can be re-packaged into 55-gallon drums. The estimated two-fold volume increase is estimated to create two (2) 55-gal drums for each daughter remediated. All of the resulting 222 containers will then be submitted for certification.

There are one hundred and twelve (112) parent containers of nitrate salt drums that have not been previously repacked that are proposed to proceed directly to WCRFF for remediation. The forty-one (41) 85-gallon containers need to be evaluated to see if they can be transferred directly or require re-packaging for purposes of transfer. These parent containers are proposed to proceed directly to WCRFF to be remediated in accordance with a new or revised procedure to ensure the final mixture meets or exceeds Carlsbad's mixing requirements (each liter of composite nitrate salt waste is to be mixed with at least 1.2 liters of zeolite/kitty litter). The resulting mixture can be packaged into 55-gallon drums or POC as needed. It is estimated that three (3) 55-gal drums and three (3) POCs will be generated as daughters for each parent remediated. All of the 672 daughter containers will be submitted for certification.

There are twenty-three (23) 85-gal drums that are proposed to go through pre-screening using the HE-RTR to confirm that inner 55-gal drum is unvented, and install HEPA filters as necessary. Based on the HE-RTR results, the vented drums will be transferred to WCRFF for remediation and the unvented containers submitted to Dome 33 for venting prior to transfer to WCRFF for remediation. These 23 drums are all >0.52 PE-Ci ( $\geq$ HC3), so venting at Dome 33 must be scheduled accordingly. Previous RTR results (from 2005 thru 2007) also indicated that the drums failed for the prohibited items, including sealed container >4-L, liquids in the container, and impenetrable object due to possible lead shielding. None of the containers exceed 624 pound weight limit for WCRFF, the heaviest drum in this group weighs 516 pounds. At WCRFF, the nitrate salt drums will be remediated in accordance with a new or revised procedure to ensure the final mixture meets or exceeds Carlsbad's mixing requirements (each liter of composite nitrate salt waste is to be mixed with at least 1.2 liters of zeolite/kitty litter). The resulting mixture can be re-packaged into 55-gallon drums or POC as needed. It is estimated that three (3) 55-gal drums and three (3) POCs will be generated as daughters for each parent remediated. All of the resulting 138 containers will then be submitted for certification.

There are seven (7) 85-gal and nineteen (19) 55-gal drums proposed to go through HE-RTR pre-screening to confirm the presence of unconsolidated nitrate salt or cements cans and to determine if the inner container is vented. These twenty-six (26) parent containers are assigned to cemented waste stream LA-CIN01.001 and were transferred from SP57 to SP72 based on the recent data review of the generator's discardable waste log sheet that indicated that these drums are nitrate salts. Based on the HE-RTR pre-screen results, the containers will go to WCRFF for remediation if found to be nitrate salt drums, or will be submitted to CPP for pre-certification if cemented cans and inner container is vented

and has an approved filter, or will be transferred to SP#57 for disposition if cemented cans are identified as unvented or possess other prohibited items. At WCRRF, the nitrate salt drums will be remediated in accordance with a new or revised procedure to ensure the final mixture meets or exceeds Carlsbad's mixing requirements (each liter of composite nitrate salt waste is to be mixed with at least 1.2 liters of zeolite/kitty litter). The resulting mixture can be re-packaged into 55-gallon drums. It is estimated that three (3) 55-gal drums and three (3) POCs will be generated as daughters for each parent remediated. All of the resulting 156 containers will then be submitted for certification.

### ***Certification Path***

All of the containers will go through the CCP certification cycle after remediation activities at WCRRF.

#### ***RTR***

**Description:** All 1254 remediation daughters will be subject to RTR. Hence, it will require approximately 90 days to complete the RTR certification activities for these daughter drums.

**Rate:** 14/day

#### ***HENC***

**Description:** All 1254 remediation daughters will be subject to analysis at HENC. Hence, it will require approximately 90 days to complete the NDA analysis for these daughter drums.

**Rate:** 14/day

#### ***FGA***

**Description:** All 1254 remediation daughters will be subject to analysis for flammable gases. Hence, it will require approximately 90 days to complete the flammable gas, head space analyses for these daughter drums.

**Rate:** 14/day

### ***SHIPPING***

#### ***RANT***

**Description:**

55-gal drums will be shipped with no special requirements. However, the payload must not exceed 6,000 pounds or dunnage drums will need to be used to make up the payload configuration of 14 55-gal drums or 2 SWBs per TRUPACT II.

**Rate:** Based on the average weight of 350 lbs, 28 drums per TRUPACT II per shipment may be achieved, although this year the average shipment has been about 16 to 19 drums.

***Work Required for Disposition (detailed descriptions of scope)***

**AK Documentation**

**Description:** All 1254 remediation daughter containers will be evaluated by CCP during container certification prior to shipment to WIPP and will be reassigned to the appropriate AK waste stream as required. All drums are currently in an approved AK waste stream; however, the assignment of the remediated nitrate salt to debris, homogenous or perhaps an absorbed waste stream is pending a CCP decision. The revised waste stream description is estimated to be completed in late FY2012. CCP must also revise the TRU Waste Content (TRUCON) code to include the physical and chemical form of the final kitty litter/nitrate salt mixture and the waste packaging configurations.

**Procedure Change**

**Description:** Detailed operating procedure WP-WCRR-DOP-0233 *WCRRF Waste Characterization Glovebox Operations* must be revised or replaced to implement the recipe to mix kitty litter/zeolite and nitrate salts. The final mixture must meet or exceed 1.2:1 kitty litter/zeolite:nitrate salt as specified by the LANL Carlsbad white paper (*Amount of Zeolite Required to Meet the Constraints Established by the EMRTC Report RF 10-13: Application to LANL Evaporator Nitrate Salts, May 08, 2012*).

**Readiness**

**Description:** Any drums with MAR inventories  $\geq$ HC 3 (0.52 PE-Ci) that require venting will need to be scheduled after receipt of start-up authorization authority approval for  $\geq$ HC 3 operations which follows successful completion of both contractor and Federal readiness assessments.

***Commodities needed for this Solution Package***

The commodities are estimate on the basis that all debris daughter drums require remediation at WCRRF; all 55-gal and 85-gal, unvented drums require installation of HEPA filters at Dome 33; and that all suspect cement drums are actually unconsolidated nitrate salts.

Item	Number Needed
<b>Filters</b>	<b>1254</b>
<b>55-Gal</b>	<b>682</b>
<b>85-Gal</b>	<b>117</b>
<b>POCs</b>	<b>705</b>

***Critical Action Items required to Process Waste***

Action	Responsible Manager	Due Date
Modify Procedure EP-WCRR-DOP-0233	Mark Shepard	30 days prior to use
Modify RWP	NA	NA
Equipments/Procurements	NA	NA

***Schedule Assumptions:***

- There are three hundred and five (305) that are estimated to be processed at WCRRF. These are estimated to create twelve hundred and fifty-four (1254) daughter containers. It is estimated that 10 drums per week will be processed at WCRRF.
- Thirty-three (33) 55-gal drums will be submitted to RTR to determine if the drums contain only debris, and not homogeneous nitrate salts. It is assumed that they contain nitrate salts and all will go to WCRRF as part of the 305.
- Twenty-three (23) 85-gal drums will be submitted to Dome 33 Drum Venting System (DVS) to vent and install HEPA filters. All are  $\geq$ HC 3. Assume 6 drums/day will start after SP#03 and X05.
- Twenty-six (26) drums (7 85-gallon and 19 55-gallon) drums require pre-screening thru HE RTR after SP#57 to determine if the drums are indeed unvented and contain cemented cans. It is assumed that all are vented and contain nitrate salts and all will go to WCRRF as part of 305.

**Shipping:**

Based on the estimated generation of daughter drums resulting from the remediation activities, the resulting 1254 daughter drums will require 128 days to ship, assuming 16 containers/shipment.

***Attachments***

- Lists of Containers by proposed path
- Schedule

### Daughter (Repack) 55-Gal Drums - Submit to RTR for pre-screening

PKG_ID	Original ID	Legacy/NG	Waste Stream	GG MAR	PECI	EC PECI	Gross Weight (lbs)	FGE	Total Dose
91013	S851506	Legacy	LA-MHD01.001		2.11		405.40	23.32	8.7
91006	S881563	Legacy	LA-MHD01.001		2.63		124.40	29.03	17.4
90999	S881562	Legacy	LA-MHD01.001		1.40		118.20	15.41	7.5
90993	S851432	Legacy	LA-MHD01.001		2.44		235.60	26.95	16.3
90986	S881569	Legacy	LA-MHD01.001		3.60		122.20	17.94	15.3
90971	S881608	Legacy	LA-MHD01.001		1.70		203.60	18.76	48.6
90965	S883130	Legacy	LA-MHD01.001		1.13		312.60	12.51	33
90953	S863787	Legacy	LA-MHD01.001		0.77		204.40	8.45	29.3
90939	S863788	Legacy	LA-MHD01.001		1.34		290.20	14.76	44
90936	S871844	Legacy	LA-MHD01.001		1.83		373.20	20.17	25.2
90931	S863696	Legacy	LA-MHD01.001		3.01		157.00	30.70	22.5
90927	S860096	Legacy	LA-MHD01.001		1.51		385.40	16.68	31
90925	S862411	Legacy	LA-MHD01.001		6.74		341.00	91.64	12.3
90899	S823187	Legacy	LA-MHD01.001		1.83		419.20	20.24	17.25
90895	S832155	Legacy	LA-MHD01.001		2.44		295.40	26.98	26
90892	S845201	Legacy	LA-MHD01.001		5.44		329.20	53.47	11.2
90888	S823194	Legacy	LA-MHD01.001		1.98		306.20	18.98	12
90883	S833261	Legacy	LA-MHD01.001		1.39		177.80	14.66	32
90880	S843962	Legacy	LA-MHD01.001		3.24		321.80	35.75	12.25
90872	S844213	Legacy	LA-MHD01.001		2.69		196.60	28.90	43.6
90865	S832464	Legacy	LA-MHD01.001		1.46		299.60	13.91	13.5
90855	S834539	Legacy	LA-MHD01.001		0.85		165.40	1.97	11.7
90845	S832149	Legacy	LA-MHD01.001		0.50		129.40	4.52	4
90840	S832040	Legacy	LA-MHD01.001		4.02		213.80	44.39	6.5
90835	S832156	Legacy	LA-MHD01.001		0.41		232.40	4.15	49
90814	S832448	Legacy	LA-MHD01.001		0.71		196.60	7.73	45
90801	S822838	Legacy	LA-MHD01.001		1.28		175.00	14.10	18

90752	S825639	Legacy	LA-MHD01.001	0.50	157.00	5.62	0.85
90727	S832147	Legacy	LA-MHD01.001	1.58	355.40	17.42	15.3
90715	S824551	Legacy	LA-MHD01.001	0.73	175.40	8.05	14.7
90712	S832340	Legacy	LA-MHD01.001	0.71	227.80	7.85	7.6
90323	S910172	Legacy	LA-MIN04-S.001	4.26	266.00	26.08	20.4
90315	S910171	Legacy	LA-MHD01.001	2.41	199.00	16.04	25.3

Daughter (Repack) POCs - Submit for Remediation at WCRRF									
PKG_ID	Original ID	Legacy/NG	Waste Stream	GG MAR	PECi	EC PECi	Gross Weight (lbs)	FGE	Total Dose
91019	S851506	Legacy	LA-MHD01.001		2.11		349.60	23.32	0.55
91018	S851506	Legacy	LA-MHD01.001		2.11		376.80	23.32	0.75
91017	S851506	Legacy	LA-MHD01.001		2.11		411.40	23.32	1.1
91011	S881563	Legacy	LA-MHD01.001		2.63		413.60	29.03	1.3
91010	S881563	Legacy	LA-MHD01.001		2.63		401.20	29.03	0.75
91009	S881563	Legacy	LA-MHD01.001		2.63		408.80	29.03	1.3
91008	S881563	Legacy	LA-MHD01.001		2.63		398.20	29.03	1.4
91007	S881563	Legacy	LA-MHD01.001		2.63		412.00	29.03	1.1
91004	S881562	Legacy	LA-MHD01.001		1.40		390.20	15.41	1.8
91003	S881562	Legacy	LA-MHD01.001		1.40		426.20	15.41	2
91002	S881562	Legacy	LA-MHD01.001		1.40		394.00	15.41	1.3
91001	S881562	Legacy	LA-MHD01.001		1.40		389.00	15.41	1.5
91000	S881562	Legacy	LA-MHD01.001		1.40		437.80	15.41	1.5
90997	S851432	Legacy	LA-MHD01.001		2.44		365.80	26.95	0.9
90996	S851432	Legacy	LA-MHD01.001		2.44		428.40	26.95	2
90995	S851432	Legacy	LA-MHD01.001		2.44		415.60	26.95	2.1
90991	S881569	Legacy	LA-MHD01.001		1.87		386.60	19.32	0.8

90990	S881569	Legacy	LA-MHD01.001		1.87		426.00	19.32	1.8
90989	S881569	Legacy	LA-MHD01.001		1.87		408.60	19.32	1.1
90988	S881569	Legacy	LA-MHD01.001		1.87		400.20	19.32	1.4
90987	S881569	Legacy	LA-MHD01.001		1.87		400.60	19.32	1.4
90974	S881608	Legacy	LA-MHD01.001		1.70		438.60	18.76	1.1
90973	S881608	Legacy	LA-MHD01.001		1.70		395.80	18.76	1.1
90972	S881608	Legacy	LA-MHD01.001		1.70		382.60	18.76	1
90969	S883130	Legacy	LA-MHD01.001		1.13		398.40	12.51	1.5
90968	S883130	Legacy	LA-MHD01.001		1.13		415.80	12.51	1.5
90966	S883130	Legacy	LA-MHD01.001		1.13		404.60	12.51	1.5
90957	S863787	Legacy	LA-MHD01.001		0.77		417.40	8.45	0.65
90956	S863787	Legacy	LA-MHD01.001		0.77		399.60	8.45	0.65
90955	S863787	Legacy	LA-MHD01.001		0.77		374.20	8.45	0.75
90942	S863788	Legacy	LA-MHD01.001		1.34		377.44	14.76	1
90941	S863788	Legacy	LA-MHD01.001		1.34		390.00	14.76	1
90937	S871844	Legacy	LA-MHD01.001		1.83		355.80	20.17	1
90934	S863696	Legacy	LA-MHD01.001		3.01		420.60	30.70	0.75
90933	S863696	Legacy	LA-MHD01.001		3.01		400.00	30.70	0.9
90932	S863696	Legacy	LA-MHD01.001		3.01		418.80	30.70	0.8
90929	S860096	Legacy	LA-MHD01.001		1.51		378.80	16.68	1.5
90900	S823187	Legacy	LA-MHD01.001		1.83		371.20	20.24	1.5
90897	S832155	Legacy	LA-MHD01.001		2.44		405.60	26.98	1.3
90896	S832155	Legacy	LA-MHD01.001		2.44		375.20	26.98	2
90893	S845201	Legacy	LA-MHD01.001		5.44		416.80	53.47	2.1
90890	S823194	Legacy	LA-MHD01.001		1.98		405.80	18.98	1.25
90886	S833261	Legacy	LA-MHD01.001		1.39		373.80	14.66	0.75
90885	S833261	Legacy	LA-MHD01.001		1.39		419.00	14.66	1.5
90884	S833261	Legacy	LA-MHD01.001		1.39		394.80	14.66	1.5
90881	S843962	Legacy	LA-MHD01.001		3.24		375.00	35.75	0.75
90878	S844213	Legacy	LA-MHD01.001		2.69		359.20	28.90	1.5
90877	S844213	Legacy	LA-MHD01.001		2.69		391.00	28.90	7.5

90876	S844213	Legacy	LA-MHD01.001	2.69	378.40	28.90	1
90875	S844213	Legacy	LA-MHD01.001	2.69	377.20	28.90	0.105
90870	S832464	Legacy	LA-MHD01.001	1.46	380.20	13.91	55
90869	S832464	Legacy	LA-MHD01.001	1.46	361.40	13.91	0.55
90868	S832464	Legacy	LA-MHD01.001	1.46	385.80	13.91	0.65
90867	S832464	Legacy	LA-MHD01.001	1.46	375.80	13.91	0.55
90866	S832464	Legacy	LA-MHD01.001	1.46	389.00	13.91	0.8
90863	S834539	Legacy	LA-MHD01.001	2.02	366.00	18.81	1.5
90862	S834539	Legacy	LA-MHD01.001	2.02	374.40	18.81	1.25
90861	S834539	Legacy	LA-MHD01.001	2.02	363.40	18.81	1.5
90860	S834539	Legacy	LA-MHD01.001	2.02	347.80	18.81	2.3
90859	S834539	Legacy	LA-MHD01.001	2.02	356.40	18.81	1.25
90858	S834539	Legacy	LA-MHD01.001	2.02	351.60	18.81	1.5
90853	S832149	Legacy	LA-MHD01.001	0.50	368.80	4.52	1.5
90852	S832149	Legacy	LA-MHD01.001	0.50	372.40	4.52	2
90851	S832149	Legacy	LA-MHD01.001	0.50	379.80	4.52	0.15
90850	S832149	Legacy	LA-MHD01.001	0.50	397.60	4.52	1.3
90849	S832149	Legacy	LA-MHD01.001	0.50	399.80	4.52	1.5
90848	S832149	Legacy	LA-MHD01.001	0.50	409.40	4.52	2
90843	S832040	Legacy	LA-MHD01.001	4.02	355.00	44.39	7
90842	S832040	Legacy	LA-MHD01.001	4.02	361.40	44.39	9
90841	S832040	Legacy	LA-MHD01.001	4.02	383.00	44.39	0.9
90838	S832156	Legacy	LA-MHD01.001	0.41	368.60	4.15	0.75
90837	S832156	Legacy	LA-MHD01.001	0.41	375.20	4.15	0.15
90836	S832156	Legacy	LA-MHD01.001	0.41	390.20	4.15	0.12
90823	S832448	Legacy	LA-MHD01.001	0.71	371.80	7.73	0.8
90822	S832448	Legacy	LA-MHD01.001	0.71	368.00	7.73	0.5
90821	S832448	Legacy	LA-MHD01.001	0.71	369.40	7.73	0.8
90820	S832448	Legacy	LA-MHD01.001	0.71	381.00	7.73	0.9
90819	S832448	Legacy	LA-MHD01.001	0.71	365.00	7.73	0.55
90818	S832448	Legacy	LA-MHD01.001	0.71	386.00	7.73	1.3

90817	S832448	Legacy	LA-MHD01.001	0.71	380.80	7.73	0.85
90812	S822838	Legacy	LA-MHD01.001	1.28	383.00	14.10	0.55
90811	S822838	Legacy	LA-MHD01.001	1.28	361.00	14.10	0.1
90810	S822838	Legacy	LA-MHD01.001	1.28	371.20	14.10	0.1
90809	S822838	Legacy	LA-MHD01.001	1.28	383.40	14.10	0.55
90808	S822838	Legacy	LA-MHD01.001	1.28	366.60	14.10	0.55
90807	S822838	Legacy	LA-MHD01.001	1.28	357.40	14.10	0.55
90806	S822838	Legacy	LA-MHD01.001	1.28	348.00	14.10	0.75
90805	S822838	Legacy	LA-MHD01.001	1.28	349.40	14.10	0.85
90804	S822838	Legacy	LA-MHD01.001	1.28	338.40	14.10	0.75
90803	S822838	Legacy	LA-MHD01.001	1.28	347.20	14.10	0.55
90802	S822838	Legacy	LA-MHD01.001	1.28	351.00	14.10	0.55
90760	S825639	Legacy	LA-MHD01.001	0.50	378.40	5.62	0.55
90759	S825639	Legacy	LA-MHD01.001	0.50	372.60	5.62	0.65
90758	S825639	Legacy	LA-MHD01.001	0.50	373.00	5.62	0.75
90757	S825639	Legacy	LA-MHD01.001	0.50	373.00	5.62	0.35
90756	S825639	Legacy	LA-MHD01.001	0.50	359.80	5.62	0.35
90755	S825639	Legacy	LA-MHD01.001	0.50	364.40	5.62	0.65
90728	S832147	Legacy	LA-MHD01.001	1.58	340.40	17.42	0.35
90725	S824551	Legacy	LA-MHD01.001	0.73	388.20	8.05	5.5
90724	S824551	Legacy	LA-MHD01.001	0.73	372.00	8.05	1.2
90723	S824551	Legacy	LA-MHD01.001	0.73	357.60	8.05	1
90722	S824551	Legacy	LA-MHD01.001	0.73	343.30	8.05	1.4
90721	S824551	Legacy	LA-MHD01.001	0.73	343.20	8.05	0.65
90720	S824551	Legacy	LA-MHD01.001	0.73	352.00	8.05	1.3
90719	S824551	Legacy	LA-MHD01.001	0.73	359.40	8.05	1.2
90718	S824551	Legacy	LA-MHD01.001	0.73	349.80	8.05	1.4
90713	S832340	Legacy	LA-MHD01.001	0.71	338.60	7.85	1.2
90324	S910172	Legacy	LA-MIN04-S.001	3.42	373.20	10.37	0.75
90318	S910171	Legacy	LA-MIN04-S.001	2.36	380.20	5.80	1.75
90317	S910171	Legacy	LA-MIN04-S.001	2.36	372.20	5.80	0.95

90316	S910171	Legacy	LA-MIN04-S.001		2.36		364.60	5.80	0.75
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**Original/Parent 85-Gal Drums - Submit for Remediation at WCRF**

PKG_ID	Original ID	Legacy/NG	Waste Stream	GG MAR	PECI	EC PECI	Gross Weight (lbs)	FGE	Total Dose
S891279	S891279	Legacy	LA-MHD01.001	14.75	14.75	3.69	378.38	162.86	4
S881607	S881607	Legacy	LA-MHD01.001	23.97	23.97	5.99	385.21	166.50	1
S881570	S881570	Legacy	LA-MHD01.001	25.65	25.65	6.41	407.26	159.87	2
S873554	S873554	Legacy	LA-MHD01.001	6.12	6.12	1.53	416.08	67.64	70
S870478	S870478	Legacy	LA-MHD01.001	4.45	4.45	1.11	410.13	49.18	3
S870381	S870381	Legacy	LA-MHD01.001	4.10	4.10	1.02	401.09	45.26	5
S870213	S870213	Legacy	LA-MHD01.001	3.73	3.73	0.93	403.29	41.24	0
S870065	S870065	Legacy	LA-MHD01.001	5.96	5.96	1.49	812.10	65.88	2
S864694	S864694	Legacy	LA-MHD01.001	8.80	8.80	2.20	409.03	97.15	2
S860014	S860014	Legacy	LA-MHD01.001	15.64	15.64	3.91	444.97	171.85	6
S855793	S855793	Legacy	LA-MHD01.001	3.44	3.44	0.86	513.04	36.20	3
S855566	S855566	Legacy	LA-MHD01.001	9.15	9.15	2.29	502.90	92.71	4
S855139	S855139	Legacy	LA-MHD01.001	5.93	5.93	1.48	478.04	64.26	10
S853006	S853006	Legacy	LA-MHD01.001	8.42	8.42	2.10	467.46	92.98	1
S852593	S852593	Legacy	LA-MHD01.001	11.80	11.80	2.95	383.01	126.54	2
S851772	S851772	Legacy	LA-MHD01.001	13.08	13.08	3.27	537.08	146.74	2
S851764	S851764	Legacy	LA-MHD01.001	9.65	9.65	2.41	418.95	103.48	2
S851739	S851739	Legacy	LA-MHD01.001	11.42	11.42	2.85	399.33	122.57	2
S851682	S851682	Legacy	LA-MHD01.001	17.03	17.03	4.26	481.79	184.61	2
S851426	S851426	Legacy	LA-MHD01.001	11.53	11.53	2.88	545.45	127.37	3
S846195	S846195	Legacy	LA-MHD01.001	11.23	11.23	2.81	476.94	124.08	3
S846172	S846172	Legacy	LA-MHD01.001	10.58	10.58	2.64	482.01	116.83	3

S846132	S846132	Legacy	LA-MHD01.001	8.67	8.67	2.17	510.62	97.15	12
S846107	S846107	Legacy	LA-MHD01.001	14.98	14.98	3.75	469.67	165.50	5
S846096	S846096	Legacy	LA-MHD01.001	8.81	8.81	2.20	479.59	97.34	2
S846088	S846088	Legacy	LA-MHD01.001	16.50	16.50	4.12	525.01	183.23	3
S846037	S846037	Legacy	LA-MHD01.001	13.21	13.21	3.30	435.05	145.92	2
S844684	S844684	Legacy	LA-MHD01.001	8.77	8.77	2.19	434.76	94.75	2
S842528	S842528	Legacy	LA-MHD01.001	16.87	16.87	4.22	259.53	186.30	3
S834406	S834406	Legacy	LA-MHD01.001	14.31	14.31	3.58	356.77	146.93	4
S832241	S832241	Legacy	LA-MHD01.001	6.61	6.61	1.65	553.21	60.60	2
S832148	S832148	Legacy	LA-MHD01.001	6.14	6.14	1.53	390.73	67.78	25
S832141	S832141	Legacy	LA-MHD01.001	3.06	3.06	0.77	437.69	31.45	10
S824967	S824967	Legacy	LA-MHD01.001	5.70	5.70	1.42	437.91	62.59	4
S824541	S824541	Legacy	LA-MHD01.001	16.13	16.13	4.03	396.90	38.44	6
S824508	S824508	Legacy	LA-MHD01.001	15.32	15.32	3.83	422.04	169.17	2
S824187	S824187	Legacy	LA-MHD01.001	5.42	5.42	1.36	399.99	59.90	190
S824184	S824184	Legacy	LA-MHD01.001	2.87	2.87	0.72	426.89	31.74	6
S823276	S823276	Legacy	LA-MHD01.001	9.46	9.46	2.37	439.02	104.50	20
S822876	S822876	Legacy	LA-MHD01.001	1.85	1.85	0.46	356.11	13.44	130
S821203	S821203	Legacy	LA-MHD01.001	13.04	13.04	3.26	455.99	144.04	2

### Original/Parent 55-Gal Drums - Submit for Remediation at WCRRF

PKG_ID	Original ID	Legacy/NG	Waste Stream	GG MAR	PECi	EC PECi	Gross Weight (lbs)	FGE	Total Dose
S910170	S910170	Legacy	LA-MHD01.001	7.60	7.60	1.90	417.63	83.93	1
S891513	S891513	Legacy	LA-MHD01.001	14.68	14.68	3.67	441.22	162.11	10
S870475	S870475	Legacy	LA-MHD01.001	6.49	6.49	1.62	384.77	71.73	3
S864663	S864663	Legacy	LA-MHD01.001	3.32	3.32	0.83	428.87	35.85	1
S864662	S864662	Legacy	LA-MHD01.001	2.99	2.99	0.75	414.54	32.78	8

<b>S863789</b>	S863789	Legacy	LA-MHD01.001	3.53	3.53	0.88	383.89	39.04	2
<b>S862255</b>	S862255	Legacy	LA-MHD01.001	3.62	3.62	0.90	324.14	39.93	1
<b>S862241</b>	S862241	Legacy	LA-MHD01.001	11.23	11.23	2.81	395.80	124.08	2
<b>S861980</b>	S861980	Legacy	LA-MHD01.001	4.00	4.00	1.00	465.03	44.19	2
<b>S861976</b>	S861976	Legacy	LA-MHD01.001	5.85	5.85	1.46	439.90	64.67	2
<b>S861975</b>	S861975	Legacy	LA-MHD01.001	4.36	4.36	1.09	332.73	48.16	2
<b>S860095</b>	S860095	Legacy	LA-MHD01.001	3.71	3.71	0.93	395.80	41.00	1
<b>S860093</b>	S860093	Legacy	LA-MHD01.001	2.69	2.69	0.67	439.02	29.72	1
<b>S855290</b>	S855290	Legacy	LA-MHD01.001	5.60	5.60	1.40	443.43	52.86	1
<b>S855240</b>	S855240	Legacy	LA-MHD01.001	11.90	11.90	2.97	439.02	129.08	2
<b>S855126</b>	S855126	Legacy	LA-MHD01.001	5.40	5.40	1.35	448.06	55.26	3
<b>S854616</b>	S854616	Legacy	LA-MHD01.001	5.85	5.85	1.46	471.87	64.33	3
<b>S853899</b>	S853899	Legacy	LA-MHD01.001	5.40	5.40	1.35	454.01	58.93	1
<b>S853898</b>	S853898	Legacy	LA-MHD01.001	6.53	6.53	1.63	556.32	71.40	8
<b>S853771</b>	S853771	Legacy	LA-MHD01.001	4.95	4.95	1.24	454.23	54.67	5
<b>S853641</b>	S853641	Legacy	LA-MHD01.001	14.48	14.48	3.62	475.18	148.24	2
<b>S853492</b>	S853492	Legacy	LA-MHD01.001	9.02	9.02	2.25	519.72	99.60	7
<b>S853326</b>	S853326	Legacy	LA-MHD01.001	11.29	11.29	2.82	498.11	124.74	1
<b>S853279</b>	S853279	Legacy	LA-MHD01.001	6.87	6.87	1.72	472.09	75.87	2
<b>S852923</b>	S852923	Legacy	LA-MHD01.001	10.54	10.54	2.63	327.66	116.36	4
<b>S852895</b>	S852895	Legacy	LA-MHD01.001	5.38	5.38	1.35	465.03	56.82	4
<b>S852883</b>	S852883	Legacy	LA-MHD01.001	6.64	6.64	1.66	398.00	73.37	8
<b>S852590</b>	S852590	Legacy	LA-MHD01.001	16.74	16.74	4.19	431.96	184.89	1
<b>S852513</b>	S852513	Legacy	LA-MHD01.001	16.77	16.77	4.19	418.95	185.27	2
<b>S851752</b>	S851752	Legacy	LA-MHD01.001	12.13	12.13	3.03	406.38	130.94	6
<b>S846660</b>	S846660	Legacy	LA-MHD01.001	12.48	12.48	3.12	433.06	137.82	2
<b>S846168</b>	S846168	Legacy	LA-MHD01.001	14.04	14.04	3.51	456.88	155.45	4
<b>S845338</b>	S845338	Legacy	LA-MHD01.001	9.45	9.45	2.36	441.00	99.26	2
<b>S845104</b>	S845104	Legacy	LA-MHD01.001	10.09	10.09	2.52	375.95	101.35	3
<b>S845072</b>	S845072	Legacy	LA-MHD01.001	11.49	11.49	2.87	408.81	110.23	3
<b>S845031</b>	S845031	Legacy	LA-MHD01.001	15.17	15.17	3.79	420.93	158.40	4

S844689	S844689	Legacy	LA-MHD01.001	12.27	12.27	3.07	415.86	130.14	3
S844573	S844573	Legacy	LA-MHD01.001	17.07	17.07	4.27	313.11	186.05	2
S843528	S843528	Legacy	LA-MHD01.001	8.52	8.52	2.13	492.16	94.14	1
S842463	S842463	Legacy	LA-MHD01.001	12.39	12.39	3.10	437.03	133.02	3
S842234	S842234	Legacy	LA-MHD01.001	8.52	8.52	2.13	393.81	94.14	1
S842213	S842213	Legacy	LA-MHD01.001	16.78	16.78	4.19	353.90	178.97	1
S842181	S842181	Legacy	LA-MHD01.001	1.88	1.88	0.47	431.08	20.71	32
S841320	S841320	Legacy	LA-MHD01.001	7.57	7.57	1.89	453.35	83.60	2
S841314	S841314	Legacy	LA-MHD01.001	13.17	13.17	3.29	459.96	145.45	2
S841292	S841292	Legacy	LA-MHD01.001	9.93	9.93	2.48	426.45	109.67	2
S841240	S841240	Legacy	LA-MHD01.001	10.52	10.52	2.63	533.17	107.10	1
S835283	S835283	Legacy	LA-MHD01.001	11.14	11.14	2.79	453.13	120.39	2
S834633	S834633	Legacy	LA-MHD01.001	15.06	15.06	3.77	422.92	149.56	3
S833937	S833937	Legacy	LA-MHD01.001	12.76	12.76	3.19	414.98	130.21	4
S833846	S833846	Legacy	LA-MHD01.001	18.36	18.36	4.59	407.93	181.53	6
S833481	S833481	Legacy	LA-MHD01.001	10.04	10.04	2.51	399.99	115.10	3
S833037	S833037	Legacy	LA-MHD01.001	8.06	8.06	2.01	389.84	76.89	1
S832499	S832499	Legacy	LA-MHD01.001	6.05	6.05	1.51	398.00	64.24	1
S832320	S832320	Legacy	LA-MHD01.001	3.51	3.51	0.88	435.93	38.80	1
S832150	S832150	Legacy	LA-MHD01.001	11.28	11.28	2.82	479.15	101.23	7
S832145	S832145	Legacy	LA-MHD01.001	12.98	12.98	3.25	418.95	142.29	1
S832144	S832144	Legacy	LA-MHD01.001	10.69	10.69	2.67	411.01	118.05	2
S832143	S832143	Legacy	LA-MHD01.001	16.43	16.43	4.11	294.59	181.50	2
S832140	S832140	Legacy	LA-MHD01.001	16.78	16.78	4.20	336.70	185.36	2
S825902	S825902	Legacy	LA-MHD01.001	3.98	3.98	0.99	349.71	43.92	9
S825810	S825810	Legacy	LA-MHD01.001	7.29	7.29	1.82	343.76	80.49	1
S825730	S825730	Legacy	LA-MHD01.001	1.96	1.96	0.49	461.07	21.65	1
S825021	S825021	Legacy	LA-MHD01.001	7.96	7.96	1.99	457.10	87.87	120
S825020	S825020	Legacy	LA-MHD01.001	12.73	12.73	3.18	319.73	140.55	23
S824660	S824660	Legacy	LA-MHD01.001	17.09	17.09	4.27	422.92	185.89	12
S824208	S824208	Legacy	LA-MHD01.001	2.15	2.15	0.54	478.04	23.70	8

S824188	S824188	Legacy	LA-MHD01.001	9.12	9.12	2.28	453.13	100.73	36
S823221	S823221	Legacy	LA-MHD01.001	6.48	6.48	1.62	496.13	71.55	8
S823004	S823004	Legacy	LA-MHD01.001	5.80	5.80	1.45	463.49	64.11	6
S822952	S822952	Legacy	LA-MHD01.001	1.95	1.95	0.49	424.90	8.57	5

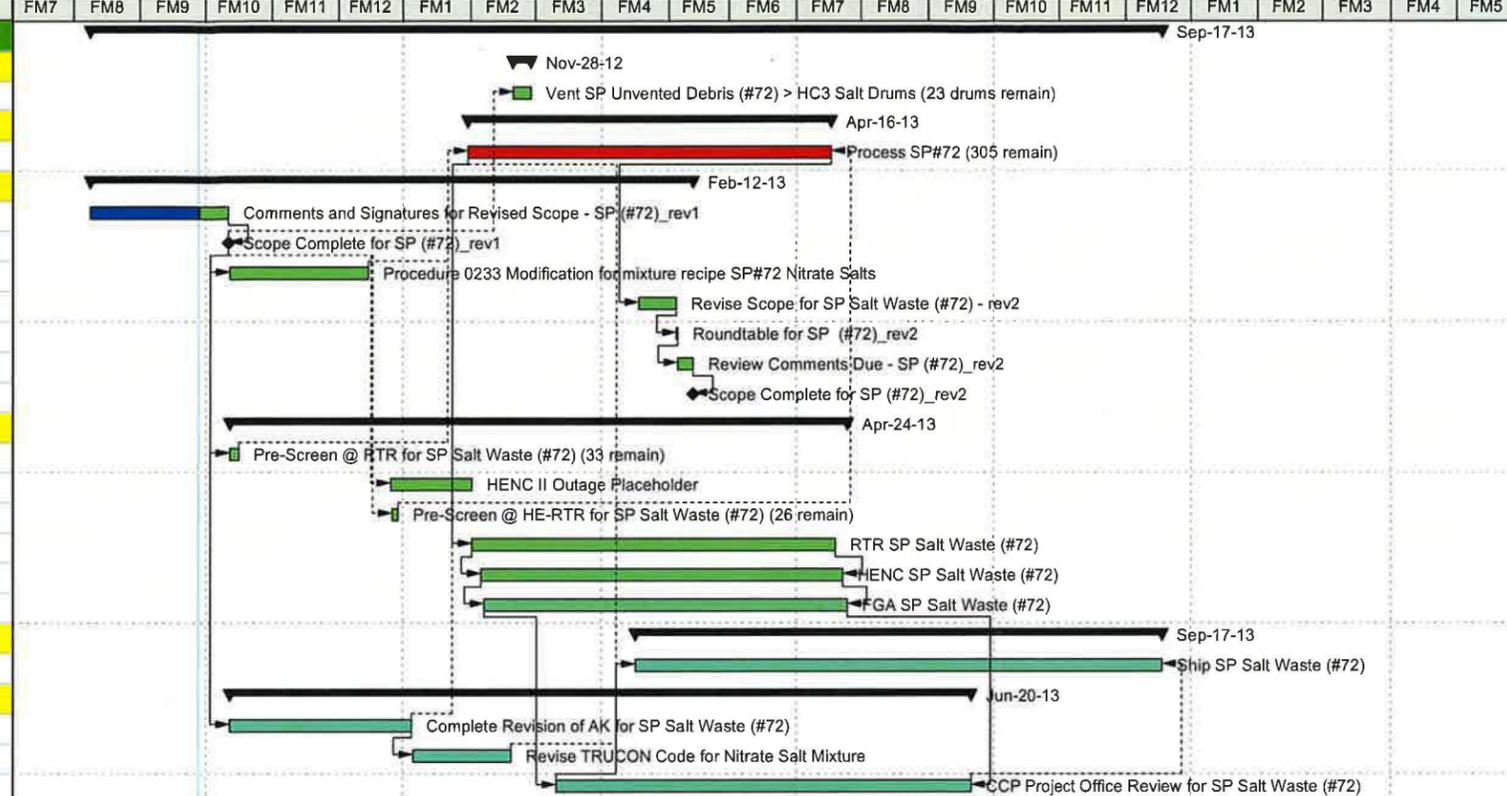
Unvented Drums w/ multiple issues (NCR, high Am content, sealed container >4L, liquids, impenetrable, etc.)									
PKG_ID	Original ID	Legacy/NG	Waste Stream	GG MAR	PECi	EC PECi	Gross Weight (lbs)	FGE	Total Dose
S901114	S901114	Legacy	LA-MHD01.001	7.32	7.32	1.83	437.91	80.80	35
S900215	S900215	Legacy	LA-MHD01.001	11.69	11.69	2.92	422.70	129.07	37
S861995	S861995	Legacy	LA-MHD01.001	8.57	8.57	2.14	423.80	90.87	2
S855216	S855216	Legacy	LA-MHD01.001	2.38	2.38	0.60	516.13	20.82	2
S852931	S852931	Legacy	LA-MHD01.001	7.88	7.88	1.97	485.54	87.08	5
S852592	S852592	Legacy	LA-MHD01.001	14.86	14.86	3.72	437.91	153.84	2
S852530	S852530	Legacy	LA-MHD01.001	16.13	16.13	4.03	409.91	178.11	2
S851436	S851436	Legacy	LA-MHD01.001	13.09	13.09	3.27	440.34	144.60	1
S851416	S851416	Legacy	LA-CIN01.001- Cans		2.78		568.23	30.74	2
S851415	S851415	Legacy	LA-CIN01.001- Cans		10.36		453.79	114.38	2
S844253	S844253	Legacy	LA-MHD01.001	15.19	15.19	3.80	365.81	163.80	12
S844215	S844215	Legacy	LA-MHD01.001	16.18	16.18	4.04	344.86	178.68	5
S842526	S842526	Legacy	LA-MHD01.001	16.79	16.79	4.20	399.99	182.14	28
S841251	S841251	Legacy	LA-MHD01.001	16.16	16.16	4.04	500.76	171.01	2
S841239	S841239	Legacy	LA-MHD01.001	10.13	10.13	2.53	461.51	111.84	2
S823229	S823229	Legacy	LA-MHD01.001	10.40	10.40	2.60	266.58	114.85	12
S823166	S823166	Legacy	LA-MHD01.001	4.69	4.69	1.17	421.38	51.78	1
S818412	S818412	Legacy	LA-CIN01.001- Cans		1.88		387.86	20.71	2

<b>S813471</b>	S813471	Legacy	LA-CIN01.001-Cans		1.92		457.98	21.17	40
<b>S802701</b>	S802701	Legacy	LA-CIN01.001-Cans		0.56		396.02	5.39	1
<b>S892963</b>	S892963	Legacy	LA-MHD01.001	11.72	11.72	2.93	529.20	124.76	1
<b>S891387</b>	S891387	Legacy	LA-MHD01.001	10.69	10.69	2.67	422.26	117.58	1
<b>S870338</b>	S870338	Legacy	LA-MHD01.001	4.61	4.61	1.15	451.80	50.97	15

<b>Suspect Cement Can - Original/Parent 85-Gal and 55-Gal Drums - Submit to HE RTR for pre-screening</b>									
PKG_ID	Original ID	Legacy/NG	Waste Stream	GG MAR	PECI	EC PECI	Gross Weight (lbs)	FGE	Total Dose
<b>S851418</b>	S851418	Legacy	LA-CIN01.001-Cans		7.74		435.93	81.29	5
<b>S844602</b>	S844602	Legacy	LA-CIN01.001-Cans		14.53		380.80	148.60	2
<b>S843673</b>	S843673	Legacy	LA-CIN01.001-Cans		6.97		416.75	77.18	6
<b>S843672</b>	S843672	Legacy	LA-CIN01.001-Cans		8.96		467.24	97.17	2
<b>S841627</b>	S841627	Legacy	LA-CIN01.001-Cans		10.46		526.49	115.51	6
<b>S822679</b>	S822679	Legacy	LA-CIN01.001-Cans		3.20		486.64	33.73	26
<b>S793450</b>	S793450	Legacy	LA-CIN01.001-Cans		1.01		469.00	6.97	2
<b>S855677</b>	S855677	Legacy	LA-CIN01.001-Cans	5.23	5.23		435.93	54.14	1
<b>S852588</b>	S852588	Legacy	LA-CIN01.001-Cans	19.16	19.16		326.34	197.06	1
<b>S846055</b>	S846055	Legacy	LA-CIN01.001-Cans	5.23	5.23		463.49	57.76	2

<b>S843594</b>	S843594	Legacy	LA-CIN01.001-Cans	8.49	8.49		523.25	93.76	2
<b>S843593</b>	S843593	Legacy	LA-CIN01.001-Cans	3.06	3.06		450.04	33.84	2
<b>S833409</b>	S833409	Legacy	LA-CIN01.001-Cans	6.18	6.18		485.10	64.43	2
<b>S823127</b>	S823127	Legacy	LA-CIN01.001-Cans	0.77	0.77		577.71	8.47	9
<b>S823016</b>	S823016	Legacy	LA-CIN01.001-Cans	10.45	10.45		407.93	114.98	2
<b>S818449</b>	S818449	Legacy	LA-CIN01.001-Cans	2.39	2.39		433.94	26.43	8
<b>S818382</b>	S818382	Legacy	LA-CIN01.001-Cans	2.97	2.97		419.83	32.76	1
<b>S818255</b>	S818255	Legacy	LA-CIN01.001-Cans	2.22	2.22		388.74	24.48	18
<b>S816890</b>	S816890	Legacy	LA-CIN01.001-Cans	0.98	0.98		412.34	10.14	2
<b>S816837</b>	S816837	Legacy	LA-CIN01.001-Cans	1.05	1.05		416.75	11.58	1
<b>S816768</b>	S816768	Legacy	LA-CIN01.001-Cans		3.56		446.95	34.96	6
<b>S816692</b>	S816692	Legacy	LA-CIN01.001-Cans	2.85	2.85		403.52	30.51	0
<b>S813676</b>	S813676	Legacy	LA-CIN01.001-Cans	1.72	1.72		386.76	17.74	2
<b>S811692</b>	S811692	Legacy	LA-CIN01.001-Cans	0.83	0.83		376.83	4.24	1
<b>S804989</b>	S804989	Legacy	LA-CIN01.001-Cans	1.05	1.05		409.91	11.54	3
<b>S803613</b>	S803613	Legacy	LA-CIN01.001-Cans	0.63	0.63		322.81	4.51	5

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	FY2013												FY2014										
						FM7	FM8	FM9	FM10	FM11	FM12	FM1	FM2	FM3	FM4	FM5	FM6	FM7	FM8	FM9	FM10	FM11	FM12	FM1	FM2	FM3	FM4	FM5
<b>WASTE - Solution Package: 72 SP Salt Waste (#72)</b>						Sep-17-13																						
<b>1.4.2.7-40.1.4.2.7.01.CD.W2.T8.2 Drum Venting</b>																												
02520	Vent SP Unvented Debris (#72) > HC3 Salt Drums (23 drums remain)	4	4	Nov-20-12	Nov-28-12	Nov-28-12																						
<b>1.4.2.7-40.1.4.2.7.01.CD.W2.TA.01 AG-Debris Drums</b>																												
0128	Process SP#72 (305 remain)	214	214	Oct-30-12	Apr-16-13	Apr-16-13																						
<b>1.4.2.7-35.1.4.2.7.01.CD.W2.TA.01.1 Strategic Planning</b>																												
04100	Comments and Signatures for Revised Scope - SP (#72)_rev1	4	9	May-09-12 A	Jul-11-12	Jul-11-12																						
01630	Scope Complete for SP (#72)_rev1	0	0		Jul-11-12	Jul-11-12																						
0121	Procedure 0233 Modification for mixture recipe SP#72 Nitrate Salts	46	46	Jul-12-12	Sep-14-12	Sep-14-12																						
02350	Revise Scope for SP Salt Waste (#72) - rev2	10	10	Jan-18-13	Feb-04-13	Feb-04-13																						
02360	Roundtable for SP (#72)_rev2	1	1	Feb-04-13	Feb-05-13	Feb-05-13																						
02370	Review Comments Due - SP (#72)_rev2	5	5	Feb-05-13	Feb-12-13	Feb-12-13																						
02380	Scope Complete for SP (#72)_rev2	0	0		Feb-12-13	Feb-12-13																						
<b>1.4.2.7-35.1.4.2.7.01.CD.W2.TA.01.5 Characterization</b>																												
06610	Pre-Screen @ RTR for SP Salt Waste (#72) (33 remain)	3	3	Jul-12-12	Jul-16-12	Jul-16-12																						
01710	HENC II Outage Placeholder	27	27	Sep-25-12	Nov-01-12	Nov-01-12																						
06620	Pre-Screen @ HE-RTR for SP Salt Waste (#72) (26 remain)	3	3	Sep-25-12	Sep-28-12	Sep-28-12																						
0129	RTR SP Salt Waste (#72)	108	108	Nov-01-12	Apr-18-13	Apr-18-13																						
0130	HENC SP Salt Waste (#72)	108	108	Nov-05-12	Apr-22-13	Apr-22-13																						
0131	FGA SP Salt Waste (#72)	108	108	Nov-07-12	Apr-24-13	Apr-24-13																						
<b>1.4.2.7-35.1.4.2.7.01.CD.W4.J6.01 Ship AG-Debris Drums</b>																												
06390	Ship SP Salt Waste (#72)	148	148	Jan-16-13	Sep-17-13	Sep-17-13																						
<b>1.4.2.7-35.1.4.2.7.01.CD.W4.JY Materials Management</b>																												
0132	Complete Revision of AK for SP Salt Waste (#72)	60	60	Jul-12-12	Oct-04-12	Oct-04-12																						
06630	Revise TRUCON Code for Nitrate Salt Mixture	30	30	Oct-05-12	Nov-19-12	Nov-19-12																						
0133	CCP Project Office Review for SP Salt Waste (#72)	128	128	Dec-10-12	Jun-20-13	Jun-20-13																						



TASK filters: by solution package, completed activities.

- Actual Work
- Critical Remaining Work
- Summary
- Remaining Work
- Milestone