From: Diaz, Tammy

Sent: Wednesday, December 17, 2014 5:04 PM

To: Haagenstad, Mark P; Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; John Kieling; steve.pullen@state.nm.us; Kliphuis, Trais, NMENV; Timothy.Hall@state.nm.us; siona.briley@state.nm.us; ricardo.maestas@state.nm.us; Gregory.Lauer@state.nm.us; steve.holmes@state.nm.us; coleman.smith@state.nm.us; butch.tongate@state.nm.us Cc: Pete Maggiore; Silas DeRoma; Cummings, Lisa K; Nickless, David J; Bishop, M. Lee; Turner, Gene E; Armijo, Karen (CONTR); Wallace, Terry C; Torres, Enrique; Woitte, Deborah Kay; Clemmons, Steve; Allen, Don; Brandt, Michael Thomas; Sharp-Geiger, Raeanna Racine; Dorries, Alison Marie; Grieggs, Tony; Bacigalupa, Gian A; Vigil-Holterman, Luciana R; Alexander, Rick A; Baumer, Andy; Martinez, Saundra; Sauer, Selena Z; Wood, Yvonne Barbara; Schreiber, Arleen Thorn; Maestas, Pamela Therese; Hargis, Kenneth Marshall; Juarez, Catherine L; Cabbil, Cheryl Denise; Young, Steven L; Erickson, Randy; Funk, David John; Alexander, Rick A; Frederici, Dave; Juarez, Catherine L; Robinson, Bruce Alan; Lansing, Michael Alan; Diaz, Tammy

Subject: Daily Technical Submission - December 17, 2014

Attached is the written daily technical submission for today. The Permittees are submitting the attached information pursuant to: Section 19 of the May 19, 2014, *Administrative Order*; the July 10, 2014 letter from NMED regarding *Modification to May 19, 2014, Administrative Order*; and Section IX of the September 19, 2014, *LANL Nitrate Salt-Bearing Waste Container Isolation Plan, Revision 2*.

Please contact me if additional information would be helpful.

Thanks,
Tammy Diaz for

Mark Haagenstad
Environmental Protection Division
Compliance and Permitting Group
Los Alamos National Laboratory
Office: (EOE) 665, 2014

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NMED / LANL Technical Summary

December 17, 2014

LANL Technical Update:

- Location of Nitrate Salt-Bearing Wastes
 - o Remediated nitrate salt-bearing waste containers.
 - All containers remain in the 375 Permacon.
 - o Unremediated nitrate salt-bearing waste containers.
 - All containers remain in the 231 Permacon.

• Monitoring - Daily Temperature

- o Temperatures remain below 90°F.
 - Temperature data that was not collected for December 16, 2014 attached.
 - See "Other" section below.

• Monitoring – Visual Inspections

- o No abnormal conditions were observed.
 - See "Other" section below.

• Monitoring – headspace gas (HSG)

- o Containers (SWBs) 68685 and SB50522.
 - Continue daily head space gas (HSG) sample collection.
 - December 17, 2014 HSG data attached.
 - o H₂, CO, CO₂ and N₂O
- Other containers
 - A minimum of once per month HSG sampling will be conducted.
 - To date in December, LANL has conducted HSG sampling on 55 SWBs.

Additional measures currently underway

- As a conservative measure, LANL is currently conducting additional monitoring. This additional monitoring includes:
 - Containers (SWB) 68685 and SB50522.
 - LANL continuing solid phase micro-extraction.
 - Hourly temperature measurements are currently being performed on SWB 68685 and SB50522.
 - Five (5) other SWB overpacks (containing 55-gallon drums of remediated nitrate salt-bearing waste).
 - Continue twice-weekly HSG sample collection.
- Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, repackaging)

o Currently, no further movements or re-packaging are planned.

Other:

- Update for repair of broken motor mount for the exhaust fan in Dome 375 Permacon:
 - o The repair for the Dome 375 ventilation system was completed this morning and the system was returned to service. All routine inspections were performed.

Next Call: Thursday, December 18, 2014

Summary Chart - Requested Information / Pending Issues:

	Requested Information	Actionee	Status	Completion Date
1.	NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g., 24 hour notices).	NMED		Complete June 5, 2014
2.	Keep NMED informed on the status of ongoing chemistry / analytical work.	LANL		Complete June 9, 2014
3.	On upcoming daily call, provide additional discussion on the potential for liquids in the 350 post-1991 cemented containers (including a discussion of the review of RTR tapes).	LANL		Complete July 6, 2014 (Discussion on call) July 18, 2014 (Meeting held)
4.	On upcoming call, provide additional discussion on why 231 and 375 Permacon fire suppression systems are not part of the LANL RCRA Hazardous Waste Facility Permit Contingency Plan.	LANL		Complete June 5, 2014
5.	Send copy of June 4, 2014 written daily submission to Trais Kliphuis. Also, include her on future daily submissions.	LANL		Complete June 5, 2014
6.	Provide LANL procedures and example records associated with post-1991 TA-55 cementation process discussed on June 6.	LANL		Complete July 3, 2014
7.	Provide information on numbers of containers in the post-1991 cemented waste streams from the TA-55 process discussed on June 6. This should include numbers regarding RTR status (RTR'd, meet WIPP criteria, requiring remediation).	LANL		Complete June 17, 2014 (Supplemental Info provided July 3)
8.	Provide RTR video and pre-screening information associated with those containers requiring remediation from the post-1991 cemented waste streams from the TA-55 process discussed on June 6.	LANL		Complete July 3, 2014
9.	Provide copy of CCP/LANL Interface Document.	LANL		Complete June 9, 2014
10.	Provide a list of the analytes for which LANL is sampling HSG (CO ₂ and LFL analytes).	LANL		Complete June 11, 2014
11.	Discuss potential sampling of HSG for NO _x .	LANL		Complete June 16, 2014

	Requested Information	Actionee	Status	Completion Date
12.	Follow-up with Tim Hall regarding LANL Hazardous Waste Facility Permit and procedures that LANL is developing for possible future sampling of empty parent containers and unremediated nitrate salt-bearing containers at LANL.	LANL		Complete Empty Parent June 16, 2014 Unremediated August 14, 2014 (Supplemental information discussed on sampling of parent containers)
				August 26, 2014 (Letter on applicability of LANL HWFP for opening waste containers)

	Requested Information	Actionee	Status	Completion Date
13.	Respond to NMED email request for information associated with the nitrate salt-bearing parent and daughter waste containers.	LANL		Complete July 9, 2014 (Letter sent addressing items 1-4 and 6-9 of the email request)
	WIPP Recovery Daily Meeting Action List item #84 – NMED requested a copy of the LANL remediation records for waste stored in			July 17, 2014 (Letter sent with updated spreadsheet)
	Panel 6 (Trais Kliphuis) – is a subset of the information in item 5 of this action.			August 7, 2014 (First submittal in response to item 5)
				August 14, 2014 (Letter addressing items 2 & 8 - Second submittal in response to item 5)
				August 18, 2014 (Third submittal in response to item 5)
				August 21, 2014 (Fourth submittal in response to item 5)
				August 27, 2014 (Fifth submittal in response to item 5)
				September 4, 2014 (Sixth submittal in response to item 5)
				September 9, 2014 (Seventh submittal in response to item 5)
				September 11, 2014 (Eighth submittal in response to item 5)
				September 22, 2014 (Ninth submittal in response to item 5)
				September 23, 2014 (Tenth submittal in response to item 5)
				October 1, 2014 (Eleventh submittal in response to item 5)
				October 8, 2014 (Twelfth submittal in response to item 5)
				October 16, 2014 (Thirteenth submittal in response to item 5)
				October 23, 2014 (Fourteenth submittal in
				response to item 5) October 27, 2014
				(Fifteenth submittal in response to item 5)
				October 28, 2014 (Sixteenth submittal in response to item 5)
				November 3, 2014 (Seventeenth submittal in response to item 5)

	Requested Information	Actionee	Status	Completion Date
14.	NMED will review the Round Sheets (provided in June 11 summary) and inform LANL if these should be attachments to the Revised Plan, or if they fall under the provision in Section I of the Revised Isolation Plan and their identification during this technical call is sufficient.	NMED	NMED has reviewed Round Sheets – no comments / direction at this time. NMED will address any comments in their formal response to Revised Container Isolation Plan.	Complete June 23, 2014
15.	NMED has requested 'copies of any waste processing, treatment, characterization stop orders issued since Feb 14, 2014.'	LANL		Complete June 13, 2014 (Included w/ daily summary) June 16, 2014 (Discussed current TA-54 & WCRRF operations)
16.	NMED requested information on the location of drums 68327 and 68328. Request made June 14.	LANL		Complete June 14, 2014
17.	Update on LANL efforts – including LANL teams. (On June 20 call, LANL offered to schedule an update meeting).	LANL / NMED		Complete July 2, 2014
18.	Neutralizer use in association with container S855793 (parent of 68660 and 68685).	LANL		Complete June 25, 2014
19.	List of nitrate salt-bearing waste containers that LANL records indicate contain absorbed liquids with the same neutralizer, as discussed during June 25 technical call.	LANL		Complete September 30, 2014 (with August 26, 2014 response)
20.	Schedule follow-on update on LANL efforts – including teams.	LANL / NMED		Complete August 14, 2014 (Meeting held)
21.	NMED requested information on document approval / review (as discussed on July 3 call).	LANL		Complete July 29, 2014
22.	What analyses will be conducted on samples taken from empty drums that previously contained nitrate salt-bearing waste.	LANL		Complete July 7, 2014
23.	NMED requested the following information on cemented waste containers generated from TA-55, that are currently stored above-ground at Area G: container id number; location; form (cans or monoliths); and type of concrete. Additionally, NMED requested information on pH adjustment during waste generation process, and information on anticipated pH of free liquids (and rationale).	LANL		Complete July 17, 2014 (Letter sent w/ information) July 18, 2014 (Meeting held)

	Requested Information	Actionee	Status	Completion Date
24.	NMED requested the procedure for sampling empty parent drums that previously contained nitrate salt-bearing waste.	LANL	EP-AREAG-WO-DOP- 1245 is included in Enclosure 1 to LANL's July 3, 2014 Response to Request for Information on Management of Waste at LANL.	Complete July 8, 2014
25.	NMED requested an additional discussion on a future technical call regarding CO ₂ , including data.	LANL		Complete August 14, 2014 (Meeting held)
26.	NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.	LANL		Complete July 18, 2014 (Meeting held)
27.	NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.	LANL		Complete August 7, 2014
28.	NMED requested link to pdf of Actinide Quarterly edition (3 rd Q 2008).	LANL		Complete July 21, 2014
29.	NMED requested a copy of lessons learned	LANL		Complete August 11, 2014
30.	NMED request regarding empty drum sampling presentation.	LANL	Presentation is a pre- decisional draft/working document not for external release	August 25, 2014
31.	Respond to NMED email request dated 8/12/2014 for information associated with the nitrate salt-bearing waste containers.	LANL		Complete September 11, 2014
32.	NMED request regarding technical presentation.	LANL	Presentation is a pre- decisional draft/working document not for external release	August 25, 2014
33.	NMED request regarding literature review of catalytic reactions.	LANL	Literature review is a pre-decisional draft/working document not for external release	August 25, 2014
34.	LANL requested to schedule a meeting with NMED on remediation planning and schedules.	LANL / NMED	In Progress Meeting scheduled for Monday September 29th	Complete September 29, 2014 (meeting held)
35.	Schedule a third update on LANL efforts – including teams.	LANL / NMED		Complete October 20, 2014

	Requested Information	Actionee	Status	Completion Date
36.	NMED request regarding LANL Causal Analysis associated with processing of nitrate salt-bearing waste at WCRRF – when document is Final.	LANL	Document is currently Draft.	
37.	NMED requested a diagram illustrating the current locations within the 375 Permacon of the 55 SWBs that contain the 57 remediated nitrate salt-bearing waste containers. NMED also requested a list of these 55 SWBs and the waste drums within each SWB (including the container numbers and waste stream type).	LANL		Complete October 27, 2014 (Diagram submitted) November 3, 2014 (Table submitted) November 20, 2014 (Revised table submitted)
38.	NMED requested documentation regarding CIN01.001 waste containers that are not part of the September 19, 2014 Nitrate Salts-Bearing Waste Container Isolation Plan, Revision 2.	LANL	In Progress LANL will submit this documentation in batches as it is becomes available.	Submitted 100 out of 586 RTRs and documentation on October 3, 2014. Submitted documentation for 101-200 containers on October 10, 2014. Submitted documentation for 201-300 containers on October 16, 2014. Submitted documentation for 301-400 containers on October 23, 2014. Submitted documentation for 401-500 containers on October 27, 2014. Submitted documentation for 401-500 containers on October 27, 2014. Submitted documentation for 501-586 containers on November 12, 2014. Submitted RTR Videos 101-150 on November 12, 2014. Submitted RTR Videos 151-200 on November 20, 2014. Submitted RTR Videos 201-250 on December 1, 2014.

	Requested Information	Actionee	Status	Completion Date
39.	NMED requested a diagram of the location of the thermocouples on 68685 and SB50522.	LANL		Complete October 27, 2014
40.	NMED requested a copy of the safety basis document for remediation planning when it is finalized.	LANL	Document is currently in Draft.	
41.	Trending and correlation of temperature and HSG monitoring data.	LANL	In progress	
42.	Schedule a fourth update on LANL efforts – including teams.	LANL/ NMED		Complete November 3, 2014
43.	Schedule a fifth update on LANL efforts – including teams.	LANL/ NMED		Complete November 20, 2014
44.	Schedule a sixth update on LANL efforts – including teams.	LANL/ NMED		Complete December 9, 2014
45.	NMED requested documentation regarding CIN01 drums.	LANL	In Progress Additions to original questions added during technical phone call December 9, 2014.	
46.	NMED requested documentation regarding duplicate drum number.	LANL	In Progress	
47.	NMED requested the ESS plan for temperature control and sampling once finalized.	LANL	Document is currently in Draft.	

Remediated Nitrate Salt Container Headspace Gas Analysis

		680	685		SB50522			
Date	Date H ₂ ppm CO ppm CO ₂ p				H ₂ ppm	CO ppm	CO ₂ ppm	N ₂ O ppm
12/17/14	144	381	13292	3658	2517	506	44687	944

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TA-54 AREA G TA-54-231 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 12-15-14 to 12-21-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: <u>0910</u>	Start Time: <u>D831</u>	Start Time:	Start Time:	Start Time:	Start Time:	_ Start Time:
TA-54-231							
Calibrated Infrared	Brand: Fluke	Brand: Fluke	Brand:	Brand:	Brand:	Brand:	Brand:
Thermometer	Model: Ste	Model: Stel	Model:	Model:	Model:	Model:	Model:
(4.2.1[1][B])	Cal. Due Date: 07/29/15		Cal. Due Date:	Cal. Due Date:			
	File Number 101974	File Number 101914	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[7])	29.8°F	<u>3</u> 0.7∘ _F	°F	°F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
S818435	31.1	337					
S802833	30.5	31.9					
S801676	30.4	31.0					
S816810	28.3	28.8					
70069	28.9	28.9					
S822844	1.28.8	29.0					
S825879 🦞	28.4 28.5	28.8					
S793724	1451128778.4	28.9					
S813545	145/1430.678.7	29.0					
S822713	218/130-7 30.6	30.7					
S802739	30.7	30.9					
69907	30.4	31.1					
S804995	3(1)	3.4					
S816434	32.8	32.8					

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6.[6] Date: From 12.15-14 to 12.21-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])					
TA-54-231 (continue	d)						
S805289	32.3	32.1					
S862888	31.9	32.0					
70072	31.2	31.4					
S823184	31.4	31.2					
S822599	31.0	30.5					
69904	79.7	29.6					
S805051	29.5	79.2					
S864213	79.8	29.5					
S853714	79.3	28.4					
S803078	79.7	28.5					
S825878	36.1	29.3					
S823124	30.5	29.9					
S804948	31.9	31.4					
S813385	32.4	31.8					
S842446	34.5	24.1					
Ambient Temperature	31.4°F	3.3 °F	°F	°F	°F	°F	°F
[6.[12])	4						
End Time (6.[13])	0916	0852					
6.[13]	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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TA-54 AREA G TA-54-375 CELL 1 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 12-15-14 to 12-21-14

		Mo	nday	\ Tue	sday	Wednesday	Thursday	Friday	Saturday	Sunday
		1 1	[6]	6.	[6] Time:	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:
TA-54-375 Cell 1										
Calibrated Infrared Thermometer (4.2.1[1][B])	1	Brand: Model: Cal. Due Date File Number	e:	Brand: Model: Cal. Due Da File Numbe	nte:	Brand: Model: Cal. Due Date: File Number	Model:	_ Model:	Model:	Brand: Model: Cal. Due Date: File Number
Ambient Temperat (6.[7])	ture		°F		F	oF	oF	°F	oF.	°F
Container ID	#	Tem; (6.[8])	p (°F) /6.[9])	Temp (6.[8])		Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
68685										V E 3 * E 3/
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69445					1					
69618			du	ľ	NA					
69013										
LASB50522										
LASB50452			1							
LASB50431										
LASB50069										
LASB50073	,									
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Saturday

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Thursday

Wednesday

6.[6] Date: From 12-15-14 to 12-21-14

Monday

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TA-54 AREA G TA-54-375 CELL 2 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 12-15-14 to 12-21-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	_ Start Time:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: Cal. Due Date: File Number	Brand: Model: Gal. Due Date: File Number	Brand:	Brand: Model: Cal. Due Date: File Number			
Ambient Temperature (6.[7])	°F	°F	oF	oF	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
LASB02198							
68638							
69615							
69635							
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69630		NA					
69633							
68430							
68631	NA						
69634							
68567		\					
94227							
LASB50442							
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	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[8]/6.[9])						
TA-54-375 Cell 2 (cor	rtinued)						
68624		\					
68507							
69568							
69553							
69598							
LASB50559							
69015	NA	NIN					
69639							
69637							
Ambient Temperature (6.[12])	of	°F	°F	°F	oF	oF	oF
End Time (6.[13])							
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Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Dat
	/	/	/ /	,		/	/	/	_/
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Dat
	/	/	/ /	•		/	/		/
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Dat
	/	/	/ /				/	/	/
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Dat

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ATTACHMENT 5

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TA-54 AREA G TA-54-375 CELL 3 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 12-15-14 to 12-21-14

UET

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 1646	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	_ Start Time:
TA-54-375 Cell 3							
Calibrated Infrared	Brand: Fluk	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:
Thermometer	Model: So	Model:	Model:	Model:	Model:	Model:	Model:
(4.2.1[1][B])	Cal. Due Date: 6/12/15		Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number 101916	File Number	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[7])	<u>≤3.0</u> ° _F	°F	°F	°F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
69519	55.1						
69645	35.						
94068	54.6						
93605	53.8 53.9						
69548	53.9	NA					
69604	54.6	, , /					
LASB50529	54.2	\					
LASB50418	54.5						
69036	54.6						
LASB50451	54.5						
69559	53.8						
LASB50448	53.5						
Ambient Temperature (6.[12])	53. \°F	°F	°F	°F	°F	oF.	°F
End Time (6.[13])	1053						
6,[13]	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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DATE 12-15-14 INITIAL JR

UET

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6.[6] Date: From /2-1-	5-14 to 12-21-14	_				
6.[2] Comments: 12/10	ully: Due to low to olver on FE-001	of a larm unable to en	Kerell Pl. Ts	suis ongoing	until m	achknahoe
Operator (print) Operator (print) Operator (print) Operator (print) Operator (print)	Signature Signature	23682	Operator (print) Operator (print) Operator (print)	Signature / Signature / Signature / Signature /	/ Z# / Z# / Z# /	/ / Initials Date / / Initials Date / / Initials Date / / Initials Date
Operator (print)	Signature /	Z# Initials Date	Operator (print)	Signature /	Z# /	Initials Date
Operator (print)	Signature	Z# Initials Date	Operator (print)	Signature /	Z# /	Initials Date
Operator (print) 8.1[2] Reviewed by:	Signature	Z# Initials Date	Operator (print)	Signature	Z#	Initials Date
SOM or designee (print)	/ Signature	/ / / Z# Initials Date				
John of designee (print)	Signature	25 minus Date				

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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 12-16-14 to 12-16-14 Location: 37.5

Start Time Geo. Start Time Geo. Start Time Geo. Geo													====		
Calibrated Infrared Thermometer (4.2.1[1][B]) Ambient Temperature (6.17) Container ID # (6.18](6.19) (6.18)															
Calibrated Infrared Thermometer (4.2.1[1][B])				1 - ~ ~ ~	0926	1028		1225	1330	1431	1529	1628	1724	0,[0]	0.[0]
Thermometer (4.2.1[1][B]) Model M			Brand:	Brand:			Brand:	-		Brand:	Brand:	Brand:	Brand:	Brand:	Brand
Cal Due Date Cal		Model:	Model: vX	Model:	Model: 1	Model;	Model: A	Model:	Model:	Model:	Model:	Model:	Model:	Model:	Model
Ambient remperature (6.[7]) Container ID # (6.[8]/6.[9])		I — \ \		Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:		Cal. Due Date:	Cal. Due Date:	Cal Due Date:	Cal Due Date
Ambient Temperature (6.[7]) Container ID # (6.[8]/6.[9]) (6.[8]/			14	N	P /			10		File Number	File Number	File Number	File Number	File Number	File Number
Temperature (6.[7]) Container ID # Temp (°F) (6.[8]/6.[9]		File Number	rite Number	The Number	Pile (vullibe)	I'lle (vullibe)	The ivalides	The Number	The Number	The realiser	The rumber	The Hamber	7 rtainoci		The Islander
Container ID # Temp (°F) (6.[8]/6.[9]) (6.[8		20 365	10912	38,6600	39. 28	40 720	LI 200E	42.73	43.720	44 44	44.890	44.7/2	44.780	4\).A	oE
(6.[8]/6[9]) (6.[8	1 '	74.55	30100	10100	2 (100	10762	11.00	VAL VOO			11.01	7 1.10	1.60	141	· ·
68685 T1 40.11 39.73 39.40 39.79 40.69 41.67 42.97 43.97 44.71 45.07 45.07 44.60 68685 T2 39.92 39.50 39.33 39.63 40.56 41.50 42.83 43.77 44.35 44.75 44.65 44.24 505027 T4 42.21 41.84 41.54 41.78 42.49 43.11 45.64 45.63 45.05 42.06 41.52 42.67 47.66 43.29 44.21 44.95 45.44 45.80 45.79 45.50															
68685 T2 39.92 39.50 39.33 39.63 40.56 41.50 42.83 43.77 44.35 44.75 44.65 44.24 50522 T4 42.21 41.84 41.54 41.78 42.49 43.29 45.11 45.64 45.63 50522 T5 42.50 42.06 41.52 42.67 42.66 43.29 44.21 44.95 45.44 45.80 45.79 45.50						(6.[8]/6.[9])								(6,[8],6,[9])	(6,[8]/6,[9])
50572TH 42.21 41.84 41.54 41.78 42.49 43.29 45.11 45.64 45.45 45.46 45.63 50572TS 42.50 42.06 41.52 42.07 42.66 43.29 44.21 44.95 45.44 45.80 45.79 45.50							-						+	\	
50572T4 42.21 41.84 41.54 41.78 42.49 43.29 45.11 45.69 45.45 45.46 45.65 50572T5 42.50 42.06 41.52 42.67 42.66 43.29 44.21 44.95 45.44 45.80 45.79 45.50	68685T2	39,92		39.33										1	
50572 75 42.50 42.06 41.52 42.67 42.66 43.29 44.21 214.45 45.49 45.80 45.79 45.50	50522 TH	42,21	46.84	41,54	41.78		43.29	4429	45.11			45.96			1
	50572 TS	42.50	42.06	41.52	42.07	42.66	413,29	144,21	414.95	45.44	45.80	45,79	45.50		
	-														
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6.[6] Date: From 2-16-14 to 12-16-14

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Location: 37

Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6,[8]/6,[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F)	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) , (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])				
								A						
\														A
													- 1/	
								*						
Ambient Temperature (6.[12])	39.35F	38.90F	38.66	39.28	40.77°F	41.28°F	42.72F	43,700°F	44.48F	44.89°F	44.78F	44.29°F	°F	°F
(6.[12]) End Time (6.[13])	J. 2-16-19	0725	0826	0927	1029	1128	1226	133/	1432	1530	1629	1725		
6.[13]	Operator:	Operator:	Operator:	Operator Operator:	Operator	Operator:	Operator:	Operator:	Operator	Operator	Operator:	Operator	Operator:	Operator:
	Operator:	Operator:	Operator	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:		Operator.
														\

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6.[6] Date: From 12-15-14 to 12-15-14 Location: 37.5					
6.[2] Comments: did not enter Permacio 1246 R 2 all temps were in 375 no Fubliar entr	Laken	From d	Ca ata	Shanding	compt
PA					
6.[17] Performed by: 3 esse Change 1 Operator (print) Signature Operator (print) Signature Operator (print) Signature Operator (print) Signature Z# Initials Date Operator (print) Signature Z# Initials Date	Operator (print) Operator (print) Operator (print) Operator (print) Operator (print) Operator (print)	Signature Signature Signature Signature Signature Signature	/ Z# Ini / / /	tials Date / tials Date / tials Date / tials Date / tials Date / tials Date / tials Date	
Operator (print) Signature Z# Initials Date	Operator (print)	/ Signature	/ / / Z# Ini	tials Date	
8.1[2] Reviewed by: Som or designee (print) Signature Signature Signature Z# Initials Date					

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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 12-16-14 to 12-17-14 Location: Dome 375

		-	_			,		Ţ	_				-	
	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
	1830 6.[6]	1929	2030 2030	2138	2230	2527	0028	0/30	0930	0.33%	6.[6] 0428	0528	6.[6]	6.[6]
Calibrated	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand	Brand
Infrared	Model: 0	Model:	Model: 4	Model:	Model: 1	Model:	Model:	Model:	Model:	ModAl: 0	Model:	Model: 1	Model	Model
Thermometer (4.2.1[1][B])		MA	MA	N.A	AA	NA	MA	NA	ANA	NA	NA	NA		Noder
(4.2.1[1][D])	Cal. Due Date:	Cal. Due Date:	Cal. Due Qate:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Nate:	Cal. Due Date:	Cal. Due Date:	Cal Due Date	Cal Due Date
	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number
Ambient	11200	112.15	11201	11176	4.0	-1120	(11.7			. # 0	410 .11	11022		
Temperature (6.[7])	43.82 F	<u>43.15</u> °F	4296F	<u>41.75</u> ∘ F	41.52°F	41.38°F	41.07°F	40.6 °F	4056°F	<u>41,0</u> °F	<u>40,41</u> ∘F	40.32 °F	°F	~F
Container ID #	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)
(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6,[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8/6.[9])	(6.[8]/6.[9])
T-1 68682	44.21	43,28	43.16	42.26	41.92	41.81	41.56	41.11	41.0	41.16	41.12	40.86		1
TZ 68685	43.79	42.64	4120	4194	41.84	41.61	41.3	40.89	40.64	40.71	40.61	40.59	1	1
T4 50522	45.25	44.15	43.25	43.68	43.47	43.34	43,12	42.69	42.48	42.20	40.79	42.43	NH	$\alpha/4$
TS 50522	45.2	44.21	44.20	43.77	43.55	43.38	43.21	42.85	42.61	42.40	42.46	42.58		
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6.[6] Date: From 12-16-14 to 12-17-14 Location: Done 375

Container ID #	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)
(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6,[8]/6,[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6,[8]/6,[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])
	<u> </u>					1/								
						NI								
						147								
				,										
Ambient Femperature 6.[12])	43.81 °F	43,15°F	4296 °F	4174 °F	4154°F	41.38 _F	41.09 °F	40.61°F	40.56°F	41.0 °F	<u>41,41</u> °F	40.32°F	oF	
End Time 6.[13])	1831	1929	9030	2128	2231	2327	0029	0130	0231	0328	0429	0528	NA	
6.[13]	Operator:	Operator:	Operator:	Operator:	Onerator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator ⁻	Operator.	Фретрет:
	7		V 0/ C	~/C	July		-Clar	00	-y		-5/C			

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6.[6] Date: From 12-16-14 to 12-17-14 Location: Dome 3 75													
6.[2] Comments: Did not Enter permacon per Standing order 1247 R2 All temps are taken from data logger in control room in Dome 375													
		MA	-										
47 - 47 - 47 - 47 - 47 - 47 - 47 - 47 -													
			·			·							
	· · · · · ·												
Operator (print) Operator (pr	Operator (print)	/ Signature / Signature	//	/ nitials Date / nitials Date									
Operator (print) Signature Z# Initials Date 134253-1R 12-17-2 Operator (print) Signature Z# Initials Date		Stgnature A	/	/nitials Date									
Operator (print) Signature Z# Initials Date	Operator (print)	Signature /	/ /	nitials Date									
Operator (print) Signature Z# Initials Date	Operator (print)	Signature /	/ Ir	nitials Date									
Operator (print) Signature Z# Initials Date	Operator (print)	Signature /	Z# 17	itials Date									
Operator (print) Signature Z# Initials Date	Operator (print)	Signature	Z# Ir	nitials Date									

8.1[2] Reviewed by:

SOM or designee (print)