From: Diaz, Tammy

Sent: Wednesday, September 17, 2014 4:30 PM

**To:** Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; tom.blaine@state.nm.us; Kieling, John, NMENV; Pullen, Steve, NMENV (steve.pullen@state.nm.us); Hall, Timothy, NMENV (Timothy.Hall@state.nm.us); Briley, Siona, NMENV (Siona.Briley@state.nm.us); ricardo.maestas@state.nm.us; trais.kliphuis@state.nm.us

**Cc:** Maggiore, Peter (Peter.Maggiore@nnsa.doe.gov) (Peter.Maggiore@nnsa.doe.gov); Cummings, Lisa K; Nickless, David J; silas.deroma@nnsa.doe.gov; Bishop, M. Lee; Turner, Gene E; Wallace, Terry C; Mousseau, Jeffrey David; Cox, Daniel Ray; Torres, Enrique; Woitte, Deborah Kay; Johns-Hughes, Kathryn W; Clemmons, Steve; Allen, Don; Roberts, Kathryn Margaret; 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; George, Victoria A; karen.browne@nnsa.doe.gov; Haagenstad, Mark P; Juarez, Catherine L

Karen.browne@iinsa.uoe.gov, Haagenstau, Mark P, Juarez, Catherin

Subject: Daily Technical Submission - September 17, 2014

Hi folks,

Attached is the written daily technical submission for today. The Permittees are submitting this 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 VIII of the May 29, 2014, *Revised LANL Nitrate Salt-Bearing Waste Container Isolation Plan.* 

Please contact Mark Haagenstad with any revisions or if additional information would be helpful.

Thanks,

Tammy Diaz for Mark Haagenstad

Tammy A. Diaz Environmental Professional Environmental Compliance Programs Los Alamos National Laboratory P.O. Box 1663 MS K404 Los Alamos, NM 87545

Phone: (505) 665-8968 Fax: (505) 667-5224 "Schedule B"

### NMED / LANL Technical Summary

### **September 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.
    - Previous day's daily temperature data attached.
- Monitoring Visual Inspections
  - No abnormal conditions.
- Additional measures currently underway
  - As a conservative measure, LANL is currently conducting additional monitoring. This additional monitoring includes:
    - Container (SWB) 68685.
      - Continue daily head space gas (HSG) sample collection.
        - o September 17, 2014 HSG data attached
          - H<sub>2</sub>, CO, CO<sub>2</sub> and N<sub>2</sub>O
        - o LANL also continuing solid phase micro-extraction.
      - Hourly temperature measurements.
        - o Previous day's hourly temperature data attached.
        - o Temperatures remain below 90°F.
    - Container (SWB) SB50522.
      - Continue daily HSG sample collection.
        - o September 17, 2014 HSG data attached
          - H<sub>2</sub>, CO, CO<sub>2</sub> and N<sub>2</sub>O
        - o LANL also continuing solid phase micro-extraction.
      - Hourly temperature measurements.
        - o Previous day's hourly temperature data attached.
        - o Temperatures remain below 90°F.
    - Five (5) other SWB overpacks (containing 55-gallon drums of remediated nitrate salt-bearing waste).
      - LANL also continuing solid phase micro-extraction.

- LANL has conducted HSG sampling on each of the 55 SWBs that contain 55-gallon drums of remediated nitrate salt-bearing waste.
- Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, repackaging).
  - o Currently, no further movements or re-packaging are planned.

### **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

	Requested Information	Actionee	Status	Completion Date
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 <sub>2</sub> and LFL analytes).	LANL		Complete
				June 11, 2014
11.	Discuss potential sampling of HSG for NO <sub>x</sub> .	LANL		Complete
12	Follow up with Tim Holl recording I ANI	I ANII		June 16, 2014
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 saltbearing 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)
13.	Respond to NMED email request for	LANL	In progress –	Partially Complete
13.	information associated with the nitrate salt- bearing parent and daughter waste containers.  WIPP Recovery Daily Meeting Action List item #84 – NMED requested a copy of the LANL remediation records for waste stored in Panel 6 (Trais Kliphuis) – is a subset of the information in item 5 of this action.	Ente	remaining are portions of item 5	July 9, 2014 (Letter sent addressing items 1-4 and 6-9 of the email request)  July 17, 2014 (Letter sent with updated spreadsheet)  August 7, 2014
				(First submittal in response to item 5)
				August 14, 2014 (- Letter sent 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

	Requested Information	Actionee	Status	Completion Date
				(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)
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		Information will be included in LANL response to NMED's August 26, 2014 letter.
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

26. NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.  27. NMED requested historic analytical information on pH of liquids associated with		Requested Information	Actionee	Status	Completion
taken from empty drums that previously contained nitrate salt-bearing waste.  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).  24. NMED requested the procedure for sampling empty parent drums that previously contained nitrate salt-bearing waste.  25. NMED requested an additional discussion on a future technical call regarding CO <sub>2</sub> , including data.  26. NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.  27. NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.  28. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  29. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  29. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  20. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  20. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  20. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  21. July 21, 2014					
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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).  24. NMED requested the procedure for sampling empty parent drums that previously contained nitrate salt-bearing waste.  25. NMED requested an additional discussion on a future technical call regarding CO <sub>2</sub> , including data.  26. NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.  27. NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.  28. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  30. July 17, 2014 (Letter sent w/ information)  July 18, 2014 (Meeting held)  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  LANL  Complete  LANL  Complete  LANL  Complete  LANL  Complete		<del>-</del>			•
empty parent drums that previously contained nitrate salt-bearing waste.  DOP-1245 is included in Enclosure 1 to LANL's July 3, 2014 Response to Request for Information on Management of Waste at LANL.  25. NMED requested an additional discussion on a future technical call regarding CO <sub>2</sub> , including data.  Complete  LANL  Complete  Complete  LANL  Complete  Complete  The properties of the propertie		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).			July 17, 2014 (Letter sent w/information) July 18, 2014 (Meeting held)
a future technical call regarding CO <sub>2</sub> , including data.  26. NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.  27. NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.  28. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  29. LANL Complete Complet	24.	empty parent drums that previously contained	LANL	DOP-1245 is included in Enclosure 1 to LANL's July 3, 2014 Response to Request for Information on Management of	Î
26. NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.  27. NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.  28. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  29. LANL  Complete  LANL  Complete  LANL  Complete  LANL  Complete  LANL  July 21, 2014	25.	a future technical call regarding CO <sub>2</sub> ,	LANL		August 14, 2014
27. NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.  28. NMED requested link to pdf of Actinide Quarterly edition (3 <sup>rd</sup> Q 2008).  29. LANL  Complete  Complete  LANL  Complete  July 21, 2014	26.	CIN-01 waste containers and absorbent,	LANL		Complete July 18, 2014
Quarterly edition (3 <sup>rd</sup> Q 2008).  July 21, 2014	27.	information on pH of liquids associated with	LANL		
29. NMED requested a copy of lessons learned LANL Complete	28.		LANL		•
August 11, 20	29.	NMED requested a copy of lessons learned	LANL		Complete August 11, 2014
draft/working document not for external release		sampling presentation.		decisional draft/working document not for	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,	31.	8/12/2014 for information associated with the	LANL		Complete September 11, 2014

	Requested Information	Actionee	Status	Completion Date
32.	NMED request regarding technical presentation.	LANL	Presentation is a predecisional 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	
35.	Schedule a third update on LANL efforts – including teams.	LANL / NMED	In progress	
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	In progress	

Next Call: Thursday, September 18, 2014

### Remediated Nitrate Salt Container Headspace Gas Analysis Results

		68	685			695	69553			69615			69616			SB50	0069			SB50452			SB50522		
Date	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm	N <sub>2</sub> O ppm	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm N <sub>2</sub> O ppm	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm	N <sub>2</sub> O ppm	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm N <sub>2</sub> O ppm	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm	N <sub>2</sub> O ppm	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm N <sub>2</sub> O ppn	H <sub>2</sub> ppm	CO ppm	CO <sub>2</sub> ppm	N <sub>2</sub> O ppm
09/17/14	119	1070	25989	8313																		7959	386	62978	1028

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## ATTACHMENT 2

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

6.[6] Date: From 9-15-14 to 9-21-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	[6]	[6]	[9].9	6.[6]	6.[6]	6.[6]
	Start Time: <b>0853</b>	Start Time: 0445	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
TA-54-231							
Calibrated Infrared	Brand: 1/1. 70	Brand: 5/1/6	Brand	Description	-		
Thermometer	Model: 5(a)	Model A	Diam.	Dianu:	Brand:	Brand:	Brand:
	Model.	Model:	Model:	Model:	Model:	Model:	Model:
(6.[7])	Cal. Due Date: 1-27-15	Cal. Due Date: 1/29/15	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number <b>/0/974</b>	File Number 10974	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[9])	63.5 °F	166.5°F	0	H <sub>o</sub>	40	I o	0
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[111)	Temp (°F)	Temp (°F)
S818435	63.1	(06.0				/[1/1\	([::]::,[::]::)
S802833	63.1	6.000					
S801676	(03.1	7.50					
S816810	(02.6	65.5					
49002	62.3	105.3					
S822844	62.5	105.6					
S825879	62.8	(45.5					
S793724	62.7	h.S.4					
S813545	62.6	654					
S822713	63.3	65.6					
S802739	63.5	(45.9					
20669	63.3	(es.7					
S804995	63.5	85 Sa					
S816434	63.6	1.50)					

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6.[6] Date: From 9.15.14 to 9.21-14

Sunday	Temp (°F)	(0.[10]/0.[11])																0		Operator: Operator:
Saturday	Temp (°F)	(1,1,1,0,1,0)																<u></u>		Operator:
Friday	Temp (°F)	(																¥°		Operator:
Thursday	Temp (°F) (6.[10]/6.[11])																	[T.		Operator:
Wednesday	Temp (°F) (6.[10]/6.[11])																	0		Operator:
Tuesday	Temp (°F) (6.[10]/6.[11])		6.50)	8.50	7,70	6.50	65.4	1 50 - 50	つとてまれて	いがなれている	120 Cott	J. 201 4. 200 D	1651°	Water Cass 7	1001 1-9-1	6726-2 600	2.000	(20.7°F	1958	Operator: Overator:
Monday	Temp (°F) (6.[10]/6.[11])		63.5	63.5	63.4	63.8	63.4	62.8	62.7	63.1	63.2	63.4	63.3	63.4	63.9	64.0	64.3	63.9 °F	0859	Operator: 5C
	Container ID #	TA-54-231 (continued)	S805289	S862888	70072	S823184	S822599	69904	S805051	S864213	S853714	S803078	S825878	S823124	S804948	S813385	S842446	Ambient Temperature (6.[14])	End Time (6.[15])	6.[15]

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6.[6] Date: From 9-15-14 to 9-21-14

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	Operator (print)	Operator (print)		Operator (print)	Operator (print)
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Operator (print)	Signature	#Z	Initials	Date
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### **ATTACHMENT 3** Page 1 of 3

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

6.[6] Date: From 9.15.14 to 1.21-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	[6]	6.[6]	[6]	[9].9	[9].9	[6]	6.[6]
	Start Time: @655	Start Time: 2355	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 1							
Calibrated Infrared	Brand: Fluke	Brand: Flec 0	Brand:	Brand	Rrand	Brand	Daniel.
Thermometer	Model: 56/	Model: 56	Model:	Model:	Model:	Model:	Model:
(6.[7])	Cal. Due Date: 6 12 15	Cal. Due Date: 6-12-(5	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal Due Date:
	File Number 10/915	File Number (619.15	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[9])	59.6 °F	68.4°F	년 0	о Н	표0	, d	0
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F)					
68685	59.0	29.4					([:-]:0,[:-]:0)
68540	59.2	69,2					
68553	59.5	69,0					
69445	59.0	7,69					
69618	5-9-3	68.3					
69013	59.6	69.3					
LASB50522	60.09	68.3					
LASB50452	59.8	1.80					
LASB50431	59.6	62,1					
LASB50069	59.9	6%9					
LASB50073	60.3	68.5					
69636	5.48	68.3					
69616	59.7	61.3					
69417	59.6	68.7					

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6.[6] Date: From 9.15.14 to 9.21.14

Container ID #	Monday Temp (°F) (6.[10]/6.[11])	Tuesday Temp (°F) (6.[10]/6.[11])	Wednesday Temp (°F) (6.1107/6.1111)	Thursday Temp (°F) (6.1107/6.111)	Friday Temp (°F)	Saturday Temp (°F)	Sunday Temp (°F)
TA-54-375 Cell 1 (continued)	tinued)			([][])	([11]:0,(01]:0)	(0.[10]/0.[11])	(0.[10]/0.[11])
69620	5.6.5	68.3					
69520	59.9	8,77					
6964-1	60.1	683					
69298	60.3	67,79					
LASB02203	60.0	67.6					
Ambient Temperature (6.[14])	59.8 oF	4.8.89	, do	L	д <sub>о</sub>	P 0	0
End Time (6.[15])	0500	9451					
6.[15]	6.[15] Operator: &C	Operator:	Operator:	Operator:	Operator:	Operator:	Operator
	Operator: JR	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
6.[2] Comments:		52					

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6.[6] Date: From 9.15.74 to 9.21.14

6.[19] Performed by:

	Operator (print)						
41.51.6 / 35/ NAIN	Z# Initials Date						
15931	Signature	Smature	Signature	Sgnature	Signature /	Signature /	Signature
Elors Giding	Operator (print)						

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	Operator (print)	Signature	Z#	Initials	Date
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	Operator (print)	Signature	Z#	Initials	Date
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	Operator (print)	Signature	#Z	Initials	Date
'			_	_	
	Operator (print)	Signature	#Z	Initials	Date
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	Operator (print)	Signature	Z#	Initials	Date
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	Operator (print)	Signature	Z#	Initials	Date
'	/				
	Operator (print)	Signature	Z#	Initials	Date

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	Signature
	SOM or designee (print)

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## ATTACHMENT 4

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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 9-15-14 to 9-21-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
	6.[6]	6.[6]	6.[6]	[6]	6.[6]	6.[6]	6.[6]	
	Start Time: O812	Start Time: 1244	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	
TA-54-375 Cell 2						Market Ma		
Calibrated Infrared Thermometer	Brand: Fluke Model: 561	Brand: Cluke Model: 56	Brand: Model:	Brand: Model:	Brand:	Brand: Model:	Brand: Model:	
([/])	File Number 101912	File Number / 01 91.2	Cal. Due Date: File Number	Cal. Due Date: File Number				
Ambient Temperature (6.[9])	60.4 °F	65, C°F	10	о Н	٩.	LL o	[L]	
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[111)	
LASB02198	60.5	64.9						_
68638	60.2	65.9						_
69615	60.3	66.9						
69635	61.0	61.0						_
69642	60.1	62.1						
69630	60.5	66.8						,
69633	0.10	66.9						
68430	60.3	1.99						
68631	60.2	65.9						
69634	9.09	6.0	+					
68567	2.09	65.3						
94227	60.3	65.0						
LASB50442	Jac 1460-8 61.3	65.9						
69644	8.00	66.9						
LASB50443	60.7	65,5					1	
69638	8.00	66.7						

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6.[6] Date: From 9-15-14 to 9-21-14

:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
TA-54-375 Cell 2 (continued)	tinued)						(
68624	00.00	66.3					
68507	100.7	(26.5					
89569	100.5	66.0					
69553	60.7	65.4					
86569	100.6	65.7					
LASB50559	(60.5	65,4					
69015	8.00	66.3					
69639	61.1	9,99					
69637	4.00	و ک					
Ambient Temperature (6.[14])	9° 6.00	9. 6.39	년.	4°	40	H <sub>o</sub>	[L
End Time (6.[15])	0823	1221					
6.[15]	6.[15] Operator: JR Operator: 5C	Operator: 32	Operator:	Operator: Operator:	Operator: Operator:	Operator:	Operator: Operator:

6.[2] Comments:

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6.[6] Date: From 9-15-14 to 9-21-14

	Operator (print)						
DES1-6 1 800 1001028/	Z# Initials Date						
One his Romer	Strature	Samature	Signature	Agnature A	Signature	Signature	Signature
6.[19] Performed by:	Operator (print)	Operator (print)	Operator (krim)	Operator (print)	Operator (print)	Operator (print)	Operator (print)

_	Initials Date	_	Initials Date	_	Initials Date	\	Initials Date						
/	Z# In	/	Z# In		Z# In	/	Z# In	/	Z# In	/	Z# In		Z# In
	Signature		Signature		Signature		Signature	/	Signature		Signature		Signature
	Operator (print)												

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/	Initials
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	Signature
	SOM or designee (print)

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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 9.15.14 to 9.21.14

a r							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6] Start Time: <b>0703</b>	6.[6] Start Time: <b>(み</b> せ)	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:
TA-54-375 Cell 3							
Calibrated Infrared	Brand: Fluke	Brand: Fluce	Brand:	Brand:	Brand:	Brand:	Brand:
Thermometer	Model: 5%/	Model: Se 1	Model:	Model:	Model:	Model:	Model:
(6.[7])	Cal. Due Date: <b>61215</b> File Number <b>201916</b>	Cal. Due Date: 6:12-13	Cal. Due Date: File Number	Cal. Due Date:			
Ambient Temperature (6.[9])	S9.1 °F	67.6°F	0	4°	, ,	[14 0	H 0
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.F1101/6.F111)
69519	59.9	وودرا					([
69645	60.2	و					
94068	60.5	(96)					
93605	60.4	8,99					
69548	60.2	1729					
69604	60.4	67.69					
LASB50529	60.7	67,1					
LASB50418	60.0	67.1					
69036	59.6	67.5					
LASB50451	59.9	67.4					
69559	60.2	67,7					
LASB50448	60.4	623					
Ambient Temperature (6.[14])	5.45 °F	67.6°F	Нo	다	[H 0	[T.]	0
End Time (6.[15])	0706	1242					
6.[15]		Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator: JK	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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6.[6] Date: From 9.15.17 to 9.21.17

6.[2] Comments:

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	1114188/8c /9.15.14	Date	Komers 1/870661 JR 19-15-14	Date	4-19-14	Date	12/458/56 19-16-14	Date /	201458/cm7 4-16-14	Date		Date		Date	
	28/88	Initials Date	1661 JR	Initials Date	さら	Initials Date	58/35	Initials Date	73/85	Initials Date	_	Initials	_	Initials	
	1114	#Z	187	Z#	S MAS	Z#	12/5	#Z	2014	#Z	_	#Z	_	#Z	
	18621	Signature	( Jackie	Stanature	the April	Signature	(J. L. (18)	Agnature M	/tentlehr	Signature V	/	Signature	/ 5	Signature	
6.[19] Performed by:	51072 61der4	Operator (print)	Jackie Romers	Operator (print)	Live Marino	Operator (print)	Jesse Marez	Operator (print)	WILLIAM JUMS	Operator (print)		Operator (print)		Operator (print)	

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)	Signature	/Z#	Initials	Date /
Operator (print)	Signature	#Z	Initials	Date /
Operator (print)	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 Holy to 9-16-14 Location: 375

Start Time: 6.[6]	Brand: Model:	Cal. Due Date: File Number	0	Temp (°F)	(6.[10]/6.[11])				-				+	
Start Time; 6.[6]	Brand: Model:	Cal Due Date. File Number	-P-	Temp (°F)	(0, 10 //6, 1 N)			1		-	-			
Start Time: 6.[6]	9 01 -	Cal. Dur Daie	62.4°F	Temp (°F)	00.110/0.111	67.6	2							
Start Time: 6.[6]	Note:	File Number	62.2	Temp (°F)	690	67:0								
Start Time: 6.[6]	Mode: C	File Number	65.7F	Temp (°F)	187	1.27								
Start Time:	Brand: Model:	File Number	68,5°F 69,6F	Temp (°F)	σ	61.5								
Start Time: 6.[6]	Model:	912-15 File Number 1019-15	68,5°F	Temp (°F)	69.0	67.6						1		
Start Time: 6.[6]	Model Model	File Number 151915	69.0° 67.9°	Temp (°F)	690	680					7			
Start Time:	Model:	6-12-15 File Number 101915	69.0%	Temp (°F) (6.[110]/6.[111])					7	4	1			
Start Time: 6.[6]	Model Date	6-12-17 File Number	65.3°F	Temp (°F) (6.[10]/6.[11])		64.4								
Start Time: 6.[6]	Made Model: Model: Sal Due Date: Asl Due Date:	6-12-15 6 4 15	63.7 °F	Temp (°F) (6.[10]/6.[11])	62.6	628								
Start Time: 6.[6]	Made Cal Due Date	6-12-15 File Number (01-215	62.0°F	Temp (°F) (6.[10]/6.[11])	Colos	61.8								
Start Time: 6.[6]		6-12-15 File Number 2019(5)	624°F 61-6°F 62.0°F 63.1°F	Temp (°F) (6.[10]/6.[11])	61.1	7 19								
Start Time: 0.[6]	Madel Cal Pue Date	File Number (01715)	4 meg	Temp (°F) (6.[10]/6.[11])	61:1	9 2								
	Calibrated Infrared Thermometer (6.[7])		Ambient Temperature (6.[9])	Container ID # (6.[10]/6.[11])	68685	5052								

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6.[6] Date: From G-16-14 Location: 37

			T .					$\overline{}$	$\overline{}$		$\overline{}$	_	7	_		1		-
Temp (°F) (6.[10]/6.[11])	-							<		1				_	-10	-	Operator: Operator:	
Temp ("F)										-			7		10		Operator:	
Temp (°F)															69.SF	1729	Operator	
Temp (°F) (6.[10]/6.[11])																CE 97	Operator	
Temp (°F)		\													70.3°F 62.9F	1551	Operator:	
Temp (°F) (6.[10]/6.[11])															69.2°	Ι.	Operator Operator	
Temp (°F) (6.[10]/6.[11])							X	1							68.65 68.4 69.2F	1327 1433	Operator:	
Temp (°F) (6.[10]/6.[11])						<b>\</b>									686	1232	Operator:	
Temp (°F) (6.[10]/6.[11])				1	1	_									63.7°F	1131	Operation	
Temp (°F) (6.[10]/6.[11])															96.3°F	1033	Operator:	
Temp (°F) (6.[10]/6.[11])															54.	0935	Operator	
Temp (°F) (6.[10]/6.[11])															669°F	0831	Operator:	
Temp (°F) (6.[10]/6.[11])															61. PF	033	Operator:	
Temp (°F) (6.[10]/6.[11])															9(.9°F	0634 0732	Operator	
Container ID # (6.[10]/6.[11])															Ambient Temperature (6.[14])	End Time (6.[15])	119	

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6.[6] Date: From Glb-14 to g-16-14 Location: 375

6.[2] Comments: Now o

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	Operator (print)						
D. Many D. A. G. Larg	Z# Initials Date						
The state of the s	Signature	Skhature of	Signature	Signature	Signiture	Signature /	Signature
6.[19] Performed by:	perator (whint)	Operator (print)	Operator (print)	Operator (print)	Operator (print)	Operator (prigu)	Operator (print)

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

6.[6] Date: From 9-16-14 to 9-17-74 Location:

Start Time: 6.[6]	Brand: Model:	Cal Due Date. File Number	L 0	Temp (°F)			-	X	2.				
Start Time: 6.[6]	Brand: Model:	Ca. Due Date: File Number	<u>{1</u> ,	Temp (°F)	+-			V .	\ \ \				
Start Time: 6.[6]	Brand:	Cal. Due Date:	60.7°F	Temp (°F)	61.0	61.2							
Start Time:	Brand:	Cal. Due Date:	60.8°F	Temp (°F)	60.3	8.00)			\				
Start Time: 6.[6]	Brand: Redike	Cal. Due Date:	61.1%	Temp (°F) (6.[10]/6.[11])	60.8	61.2							
Start Time: 6.[6]	Brand:	Cal. Due Date:	61.84	Temp (°F) (6.[10]/6.[11])	61.0	61.3							
Start Time: 6.[6]	Brand: Fluch Model:	Cal. Due Date:	621 °F	Temp (°F) (6.[10]/6.[11])	61.7	61.0							
Start Time: 6.[6]	Brand:	Cal. Due Date:	62.7°F	Temp (°F) (6.[10]/6.[11])	61.8	62.1							
Start Time: 6.[6]	Brand:	Cal. Due Date:	63.( °F	Temp (°F) (6.[10]/6.[11])	63.(	62.6							
Start Time: 6.[6]	Brand:	Cal. Due Date:	7. 2.	Temp (°F) (6.[10]/6.[11])	63.8	63.3				,	$\mathcal{U}/\mathcal{V}$		
Start Time: 6.[6]	Brand: //www.	Cal. Due Date:	4.6.5	Temp (°F) (6.[10]/6.[11])	69.3	63.6							
Start Time: 6.[6]	Brand: //wkc Model: 5-6/	Cal. Due Date.	4. 8:59	Temp (°F) (6.[10]/6.[11])	65.7	64.8							
Start Time: 6.[6]	Brand: Curk & Model: S-61	Cal. Due Date:	67, O °F	Temp (°F) (6.[10]/6.[11])	66.3	65.5							
Start Time: 6.[6]	Brand: Fluk 6 Model: S6	Cal. Due Date:	108.2 °F	Temp (°F) (6.[10]/6.[11])	69.3	66.5							
	Calibrated Infrared Thermometer		Ambient Temperature (6.[9])	Container ID # (6.[10]/6.[11])	68685	50522							

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Location:

6.[6] Date: From 9-16 14 to 9- 1779

	Т		-		Τ.	Т			ī	1					T	
Temp (°F)								-	_	2	-		<u>:-</u>		Operator:	Operator
Temp (°F) (6.[10]/6.[11])												2			Operator:	Operator:
Temp (°F)													60.8°F	0531	Operator	Operator
Temp (°F)													1	0430	Sherado	Operator
Temp (°F) (6.[10]/6.[11])													61.6°F	0330	Operator:	Operator
Temp (°F) (6.[10]/6.[11])													61.5°F	0231	Operator	Operator
Temp (°F) (6.[10]/6.[11])													62.1 °F	0131	Operator	Operator
Temp (°F)													62.8°F	1500	Operator:	Operator:
Temp (°F) (6.[10]/6.[11])													63. ( °F	2332	Operator:	Operator:
Temp (°F) (6,[10]/6,[11])				1	A / / V	/2/	\						6 12 °F	2232	Operator:	Operator:
Temp (°F) (6.[10]/6.[11])													6%6 °F	2/36	Operator:	Operator:
Temp (°F) (6.[10]/6.[11])							· Annual						4. 6'S9	2031	Operator:	Operator:
Temp (°F) (6.[10]/6.[11])									T				620 °F	(933	Operator:	Operator:
Temp (°F) (6.[10]/6.[11])													67.8 °F	1834		Operator:
Container ID # (6.[10]/6.[11])													Ambient Temperature (6.[14])	End Time (6.[15])	6.[15]	

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6.[6] Date: From 9-16-14 to 9-17-19 Location:

6.[2] Comments:

BL2357 Jan 9-16-14 Operator (print)

Signature

Timmy (Rome(or)

1992 (print)

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_	Date /	Date	Date				
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, /	/ Z#	#2 \	#7	#2	Z# /	/ /	Z#
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Operator (print)

6.[19] Performed by:

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