

# NMED / LANL Technical Call

June 11, 2014

ERID-524909

EP2014-5172

## Participation:

- New Mexico Environment Department: John Kieling, Trais Kliphuis, Steve Pullen, Tim Hall, Siona Briley, Cole Smith, Steve Holmes, Ricardo Maestas.
- LANL – Los Alamos Field Office: Silas DeRoma, Gene Turner.
- LANL - Los Alamos National Security: Tori George, Alison Dorries, Deb Woitte, Mark Haagenstad, Enrique “Kiki” Torres.

## LANL Technical Update:

- **Location of Nitrate Salt-Bearing Wastes**
  - Remediated nitrate salt-bearing waste containers.
    - All containers remain in the 375 Permacon.
  - Unremediated nitrate salt-bearing waste containers.
    - All containers remain in the 231 Permacon.
- **Monitoring - Daily Temperature**
  - Temperatures remain below 90°F.
- **Monitoring – Visual Inspections**
  - No abnormal conditions.
- **Additional measures currently underway**
  - As a conservative measure, LANL is currently conducting additional monitoring on container 68685. This additional monitoring includes:
    - Collecting a daily head space gas sample.
      - CO<sub>2</sub> - Moving towards equilibrium between SWB and drum. The Permittees are working with LANL chemistry SMEs, and will continue to watch this trend.
      - H<sub>2</sub>, CH<sub>4</sub>, and VOCs - all below LFLs.
      - LANL also continuing *solid phase micro-extraction* technique.
    - Hourly temperature measurements.
      - Temperatures remain below 90°F.
- **Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, re-packaging).**
  - Currently, no further movements or re-packaging are planned.

**Other:**

- **Round Sheets**

- LANL has developed round sheets for TA-54 Area G Dome 231 Permacon Nitrate Salt Storage and TA-54 Area G Dome 375 Permacon Nitrate Salt Storage. These round sheets are effective as of today.
- During today’s technical call, LANL offered to send (via written correspondence) these Round Sheets to NMED as addendums to LANL’s May 29, 2014, *Revised Nitrate Salt-Bearing Waste Container Isolation Plan*. NMED requested that instead, LANL send these Round Sheets to NMED as attachments to this daily technical call submission. (See Attachments 2 and 3).
- NMED stated they will review these two documents 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. The relevant portion of Section I states:

Additional measures above those described in this Revised Isolation Plan may also be taken and will be identified to NMED during the daily technical calls established in Section VIII below.

**Requested Information / Pending Issues:**

- **HSG Analytes**

- As discussed above and in previous daily technical calls, as a conservative measure LANL is currently conducting additional monitoring on container 68685 for CO<sub>2</sub>, and H<sub>2</sub>, CH<sub>4</sub>, and VOCs (Lower Flammability Limit (LFL) constituents). On June 10, NMED requested a list of the analytes associated with this monitoring.
- These samples are analyzed for CO<sub>2</sub> *and* the constituents listed in Attachment 1 to this daily technical call submission.

**Summary Chart - Requested Information / Pending Issues:**

	<b>Requested Information</b>	<b>Actionee</b>	<b>Status</b>	<b>Completion Date</b>
1.	NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g., 24 hour notices).	NMED	Provided in June 5 NMED email.	Complete June 5, 2014
2.	Keep NMED informed on the status of on-going chemistry / analytical work.	LANL	Current information provided to NMED in June 9 meeting.	Complete June 9, 2014
3.	On upcoming daily call, provide additional discussion on the potential for liquids in the 378	LANL	In progress.	

	post-1991 cemented containers (including a discussion of the review of RTR tapes).		Provided additional discussion on June 6, 2014 call.	
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	Discussed June 5, 2014 tech call  Action: Include information discussed in June 5 tech call in written daily submission.	Complete  June 5, 2014  Included in this written submission.
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	In progress.	
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	In progress.	
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	In progress.	
9.	Provide copy of CCP/LANL Interface Document.	LANL	Provided to Trais Kliphuis by NWP/CCP via email on June 9.	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	In progress.	
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	In progress.	
13.	Respond to NMED email request for information associated with the nitrate salt-bearing parent and daughter waste containers.	LANL	In progress.	
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		

**Next Call:** Thursday, June 12, 2014 - at 10 am.

## Attachment 1

### LFL Sampling and Analysis - List of Compounds and Associated CAS Numbers

COMPOUND	CAS NUMBER
Hydrogen	1333-74-0
Methane	74-82-8
Methanol	67-56-1
Ethyl Ether	60-29-7
1,1-Dichloroethylene	75-35-4
Acetone	67-64-1
1,1-Dichloroethane	75-34-3
cis-1,2-Dichloroethene	156-59-2
Methyl ethyl ketone	78-93-3
Cyclohexane	110-82-7
Benzene	71-43-2
1,2-Dichloroethane	107-06-2
1-Butanol	71-36-3
Methyl isobutyl ketone	108-10-1
Toluene	108-88-3
Chlorobenzene	108-90-7
Ethylbenzene	100-41-4
m- and p-Xylene	108-38-3/106-42-3
o-Xylene	95-47-6
1,3,5-Trimethylbenzene	108-67-8
1,2,4-Trimethylbenzene	95-63-6

## Attachment 2

*TA-54 Area G Dome 231 PermaCon Nitrate Salt Storage Area Round Sheet, EP-AREAG-WO-DOP-1251, R.0.*

Note, this document is found in a file attached to the email transmitting this daily technical call submission.

## Attachment 3

*TA-54 Area G Dome 375 PermaCon Nitrate Salt Storage Round Sheet, EP-AREAG-WO-DOP-1249, R.0.*

Note, this document is found in a file attached to the email transmitting this daily technical call submission.

# TA-54 Area G Dome 231 PermaCon Nitrate Salt Storage Area Round Sheet

Effective Date: 6-11-2014

**Hazard Class:**       Low                       Moderate                       High/Complex  
**Usage Mode:**         Reference                       UET                       Reference and UET

The Responsible Manager has determined that the following organizations' review/concurrence is required for the initial document, and for major revisions a same type and level review is required. Review documentation is contained in the Document History File:

Engineering  
 Industrial Health and Safety  
 Quality Assurance  
 Shift Operations Manager  
 Subject-Matter Expert  
 Site-Services Subcontractor  
 Radiation Protection

Responsible Manager, LTP-SSS Operations Manager

Gail Welsh / 114849 / /s/ L Salazar for Gail Welsh / 6-5-2014  
 Name (print)                      Z#                      Signature                      Date

Classification Review:    N/A     Unclassified     UCNI     Classified \_\_\_\_\_

Art Crawford / 080070 / /s/ Art Crawford / 6-5-2014  
 Name (print)                      Z#                      Signature                      Date

Working Copy / Information Only (circle one)

Initials / Date: \_\_\_\_\_ / \_\_\_\_\_

This document fully satisfies the requirements of P300, Integrated Work Management, in order to systematically describe the work activity, the associated hazards, and the controls that **MUST** be employed to mitigate the risks.

**TA-54 Area G Dome 231**  
**PermaCon Nitrate Salt Storage Area Round Sheet**

Document No.: EP-AREAG-WO-DOP-1251  
Revision: 0  
Effective Date: 6-11-2014  
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Reference

**REVISION HISTORY**

Document Number	Issue Date	Action	Description
EP-AREAG-WO-DOP-1251, R.0	June 11, 2014	New	New procedure for performing rounds for Nitrate Salt Storage Area 231 PermaCon.

## 1. PURPOSE

This procedure provides the instructions and requirements for conducting inspections of the Dome TA-54-231 PermaCon® in Technical Area (TA)-54.

## 2. SCOPE

This procedure is used to determine the status of the Dome TA-54-231 PermaCon® and equipment in order to ensure that they are in satisfactory conditions while the 231 PermaCon is used as a Nitrate Salt-Bearing Storage area. The round sheet also provides a means for documenting status and abnormal conditions that may arise during the performance of the rounds and that may require attention and/or correction before performing activities in the Dome TA-54-231 PermaCon®.

## 3. PRECAUTIONS AND LIMITATIONS

- This round sheet and associated inspections will be completed by an Operator/designee.
- Comply with TA-54 Area G access requirements, including those established by the RCT (e.g., requirements in RWPs).
- To comply with the intent of the As Low As Reasonably Achievable (ALARA) Program, all personnel **SHALL** apply the principles of time, distance, and shielding when working with radiological materials.
- Do not disturb or touch wild animals, dead animals, nesting areas, droppings, or surfaces with mold growth to avoid exposure to biological threats (e.g., snakes, rodents, rodent droppings, Hanta virus, Bubonic plague, spiders, West Nile virus, molds). Notify the TA-54 Operations Center if dead animals, nesting areas, droppings, or surfaces with mold growth are found.
- Avoid slips, trips, and falls by wearing footwear with slip-resistant soles and using handrails when using stairs. Avoid walking on uneven or unstable surfaces. Keep work surfaces dry, clean, orderly and free of items that could lead to slips, trips or falls.
- Wear proper PPE (leather gloves) when performing rounds that require hands-on manipulation of systems or system components is necessary.
- Personnel **SHALL** wear safety shoes and safety glasses with side shields when performing rounds.

Reference

**3. PRECAUTIONS AND LIMITATIONS (continued)**

- The Transient Combustible Exclusion Zone (a 10 foot perimeter surrounding the Dome 54-231 PermCon and marked on the dome floor), is not applicable when the Dome 54-231 is designated as a STORAGE AREA. The Transient Combustible Exclusion Zone is applicable only when Dome 54-231 is designated as a Sort, Segregate, and Size Reduction (SSSR) AREA. Transient combustibles needed to perform round sheet inspection are controlled in accordance with EP-AREAG-FO-AP-1184, TA-54 Area G Transient Combustible Control.
- Combustible materials located within the dome shall be minimized at all times.
- Not Applicable (N/A) is documented in the blocks on the round sheet during the performance of this procedure indicating information that is not required to be recorded.
- Calibrated instruments/gauges used to verify parameters on this round sheet are required in order to demonstrate a level of formality and traceability and thus **SHALL** have satisfied the calibration interval requirements. Instruments/gauges that do not satisfy the calibration interval requirement **SHALL** be reported to supervision and documented on the round sheet.

**4. PREREQUISITE ACTIONS**

**Supervisor or Designee**

- [1] **ENSURE** that the procedure is the latest revision, and **IDENTIFY** this document as Working Copy or Information Only on Title Page.

Reference

## 5. PERFORMANCE

The Operational Inspections of this round sheet are required to be performed daily.

**NOTE 1** *For detailed instructions for the performance of rounds, and for taking and recording data refer to P315, Conduct of Operations Manual.*

**NOTE 2** *Items under each section may be performed in any order.*

**NOTE 3** *The person recording the information on the round sheet may be someone other than the person collecting the data, such as obtaining information from the Contamination area. This practice ensures that the paperwork does not become contaminated.*

### Operator/Designee

- [1] **RECORD** the dates (mm/dd/yy) for the Period Covered at the top of each round sheet page.
- [2] **RECORD** the actual time (24 hr) that the rounds are started and **INITIAL** the round sheet.
- [3] **IF** an out-of-specification condition is found,  
**THEN:**
  - [A] **NOTIFY** supervision for further guidance.
  - [B] **RED CIRCLE** the block on the round sheet and **CORRECT** if possible.
  - [C] **RECORD** the deficiency and corrective actions, as applicable, by item number in the Narrative Log of the round sheet, including the name of the supervisor notified.
- [4] **IF** "N/A" is recorded for any item on the round sheet  
**THEN PROVIDE** a brief explanation (e.g., "hoist is not in use") in the Narrative Log.

**TA-54 Area G Dome 231  
PermaCon Nitrate Salt Storage Area Round Sheet**

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Reference

**5. PERFORMANCE (continued)**

- [5] **IF** a HVAC DP alarm condition is found,  
**THEN GO** to EP-AREAG-RM-ARP-1123, 231 PermaCon Low D/P Alarm.
- [6] **COMPLETE** the applicable sections of the round sheet.
- [7] **RECORD** the actual time (24 hrs) that the rounds were completed on the round sheet, and **INITIAL** the round sheet.
- [8] **PRINT, SIGN, ENTER Z** number and **DATE** the round sheet.

**NOTE**      *This procedure is **NOT** considered completed until the results have been reviewed and approved by supervision.*

**Supervision**

- [9] **REVIEW** the round sheet for accuracy and completeness.
- [10] **PRINT, SIGN, ENTER Z** number and **DATE** the round sheet.

Reference

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## 6. RECORDS

### Supervisor

[1] **ENSURE** that completed round sheets from this procedure are processed as follows:

Record Identification	Record Type Determination	Protection/Storage Methods	Processing Instructions
TA-54 Area G Dome 231 PermaCon Nitrate Salt Storage Area Round Sheet	QA Record	Supervision <b>SHALL</b> implement a reasonable level of protection to prevent loss and degradation. Records should be maintained in a one hour fire-rated metal file cabinet when <u>not</u> in use.	When the record is ready for final disposition, the record is transferred to Records Management in accordance with EP-DIR-AP-10003, Record Management Procedure For ADEP Employees.

## 7. REFERENCES

EP-AREAG-RM-ARP-1123, 231 PermaCon Low D/P Alarm

EP-DIR-AP-10003, Record Management Procedure for ADEP Employees

P315, Conduct of Operations Manual, Attachment 2, Sections 2.5.3 and 2.5.4

**TA-54 Area G Dome 231  
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UET

TA-54 Area G Dome 231 PermaCon® Nitrate Salt Storage Area Round Sheet						Period Covered (mm/dd/yy) (5.[1]) _____ to _____						
OPERATIONAL INSPECTIONS						Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Actual Time Rounds Started (Time / Initials) (5.[2])						/	/	/	/	/	/	/
<b>NOTE</b> <i>The specified actions below must be completed and all deficiencies must be evaluated by supervision to determine whether work may commence in the 231 PermaCon®.</i>						1. Record the as-found condition / position / reading. 2. Red Circle the block if the as-found condition is <u>not</u> as required. Record the deficiency and corrective actions, as applicable, in the narrative section including the name of the supervisor who was notified. 3. If condition / position / reading can be returned to SAT or NORM during shift, record in the Narrative Section. 4. Steps may be performed in any order.						
Item	Equipment	Unit	MIN.	NORM	MAX.							
1.1	Fire Extinguishers: • 7-Dome • 1-Cntrl Rm • 2-RBA • 4-CA • 1-Step Off Pad			INITIAL / DATE (Not obstructed, Gauge Green/TID intact / Inspection current) (Weekly)		_____ / _____ Initials / Date						
1.2	Personnel Doors # 3 and # 10 (No Access/Egress)			SAT (TID intact)								
1.3	Control Room Entry/Exit Door #1			SAT (Not obstructed)								
1.4	Control Room Entry/Exit Door #2			SAT (Not obstructed)								
1.5	V-01			SAT [In Designated Position per Markings (label, signage)]								
1.6	V-12			SAT [In Designated Position per Markings (label, signage)]								
1.7	FE-1000			SAT (ON and operating)								
1.8	FAH-1000 Efficiency Test (Weekly)			Next Efficiency Test Date (Within 1 yr of Test Date)		_____ Next Eff. Due Date				_____ / _____ Initials / Date		
1.9	PDI-4000 Gauge Cal. (Weekly)			Calibration Due Date (Within Cal. Due Date)		_____ Cal. Due Date				_____ / _____ Initials / Date		





**TA-54 Area G Dome 231  
PermaCon Nitrate Salt Storage Area Round Sheet**

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<b>TA-54 Area G Dome 231 PermaCon® Nitrate Salt Storage Area Round Sheet</b>						Period Covered (mm/dd/yy) (5.[1]) _____ to _____						
<b>OPERATIONAL INSPECTIONS</b>						Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Item	Equipment	Unit	MIN.	NORM	MAX.							
1.33	FE-3000			SAT (ON and operating)								
1.34	FAH-3000 Efficiency Test (Weekly)			Next Efficiency Test Date (Within 1 yr of Test Date)		<div style="display: flex; justify-content: space-between;"> <span>_____</span> <span>_____ / _____</span> </div> <p align="center">Next Eff. Due Date                      Initials / Date</p>						
1.35	PDI-6000 Gauge Cal. (Weekly)			Calibration Due Date (Within Cal. Due Date)		<div style="display: flex; justify-content: space-between;"> <span>_____</span> <span>_____ / _____</span> </div> <p align="center">Cal. Due Date                                      Initials / Date</p>						
1.36	PDI-6000	in. w.c.	0.5	0.5 to 2.5 (As-Found Value)	2.5							
1.37	Personnel Entry/Exit Door #8 (CA)			SAT ( <u>Not</u> Obstructed)								
1.38	Exterior Rollup Door (RBA)			SAT (Closed)								
1.39	PDIC-2000 Gauge Cal. (Weekly)			Calibration Due Date (Within Cal. Due Date)		<div style="display: flex; justify-content: space-between;"> <span>_____</span> <span>_____ / _____</span> </div> <p align="center">Cal. Due Date                                      Initials / Date</p>						
1.40	PDIC-2000	in. w.c.	> 0.03	0.03 to 0.20 (As-Found Value)	0.20							
1.41	PDIC-2000 Alarm Setpoints (red indicators)			SAT (Left at 0.03 and Right at 0.20)								
1.42	DMP-2006 (West Cell slide damper)			SAT (Closed)								
1.43	HVAC Condensate Catch Pan COL-01			SAT	< 1/4 Full							



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<b>TA-54 Area G Dome 231 PermaCon® Nitrate Salt Storage Area Round Sheet</b>						Period Covered (mm/dd/yy) (5.[1]) _____ to _____						
<b>OPERATIONAL INSPECTIONS</b>						Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Item	Equipment	Unit	MIN.	NORM	MAX.							
1.59	PDI-3000 (Control Rm)	in. w.c.	0.03	0.03 to 0.20 (As-Found Value)	0.20							
1.60	Cell 2 Rollup Door Cover			SAT (Properly Secured on Sides)								
1.61	V-09			SAT (Closed)								
1.62	V-08			SAT (Closed)								
1.63	TH-01	°F	≥ 40	Temperature	90							
1.64	TH-01			SAT (FAN ON; System set to Heat or Cool, as appropriate)								
1.65	TH-02	°F	≥ 40	Temperature	90							
1.66	TH-02			SAT (FAN ON; System set to Heat or Cool, as appropriate)								
Record Actual Time Rounds Completed (Time / Initial) (5.[7])												



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5.[8] Period Covered (mm/dd/yy) (5.[1]) \_\_\_\_\_ to \_\_\_\_\_

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee Signature Initial Z # Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee Signature Initial Z # Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee Signature Initial Z # Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee Signature Initial Z # Date

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Operator/Designee Signature Initial Z # Date

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Operator/Designee Signature Initial Z # Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee Signature Initial Z # Date

5.[10]

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print) Signature Initial Z # Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
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Supervisor (print) Signature Initial Z # Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print) Signature Initial Z # Date



## TA-54 Area G Dome 375 PermaCon Nitrate Salt Storage Round Sheet

Effective Date: 6/11/2014

**Hazard Class:**       Low                       Moderate                       High/Complex  
**Usage Mode:**       Reference                       UET                       Both Reference and UET

The Responsible Manager has determined that the following organizations' review/concurrence is required for the initial document, and for major revisions a same type and level review is required. Review documentation is contained in the Document History File:

Shift Operations Manager Engineering Industrial Safety Quality Assurance	RP Fire Protection Engineer Subject Matter Expert
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Responsible Manager, LTP-SSS Operations Manager

Gail Welsh / 114849 / Larry Salazar for / 6/5/2014  
 Name (print)                      Z#                      Signature                      Date

Classification Review:    N/A     Unclassified     UCNI     Classified \_\_\_\_\_

Teri Tingey / 200975 / /s/ Teri Tingey / 6/4/2014  
 Name (print)                      Z#                      Signature                      Date

Working Copy / Information Only (circle one)

Initials / Date: \_\_\_\_\_ / \_\_\_\_\_

This document fully satisfies the requirements of P300, Integrated Work Management, in order to systematically describe the work activity, the associated hazards, and the controls that **MUST** be employed to mitigate the risks.

**TA-54 Area G Dome 375 PermaCon Nitrate Salt Storage Round Sheet**

Document No.: EP-AREAG-WO-DOP-1249  
Revision: 0  
Effective Date: 6/11/2014  
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Reference

**REVISION HISTORY**

Document Number	Issue Date	Action	Description
EP-AREAG-WO-DOP-1249, R.0	June 11, 2014	New procedure	Develop new procedure based on EP-AREAG-WO-DOP-1061 for Dome 375 PermaCon inspections when building is used for nitrate salt waste container storage. Ventilation related limits updated by ES-EWMO.

## TA-54 Area G Dome 375 PermaCon Nitrate Salt Storage Round Sheet

Document No.: EP-AREAG-WO-DOP-1249  
Revision: 0  
Effective Date: 6/11/2014  
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Reference

### 1. PURPOSE

This procedure provides the instructions and requirements for conducting inspections of the Dome TA-54-375 PermaCon in Technical Area (TA)-54 Area G.

### 2. SCOPE

This procedure is used to verify and validate system and systems components associated with the Dome TA-54-375 PermaCon to ensure they are in satisfactory condition while the PermaCon is used as a storage area for nitrate salt-bearing waste containers. The round sheet also provides a means for documenting status and abnormal conditions that may arise during the performance of the rounds that may require attention and/or correction.

### 3. PRECAUTIONS AND LIMITATIONS

- This round sheet and associated inspections will be completed by an operator/designee.
- Comply with TA-54 Area G access requirements, including those established by Radiological Protection (RP) (e.g., requirements in RWPs).
- To comply with the intent of the As Low As Reasonably Achievable (ALARA) Program, all personnel **SHALL** apply the principles of time, distance, and shielding when working with radiological materials.
- Do not disturb or touch wild animals, dead animals, nesting areas, droppings, or surfaces with mold growth to avoid exposure to biological threats (e.g., snakes, rodents, rodent droppings, Hanta virus, Bubonic plague, spiders, West Nile virus, molds). Notify the TA-54 Operations Center if dead animals, nesting areas, droppings, or surfaces with mold growth are found.
- Avoid slips, trips, and falls by wearing footwear with slip-resistant soles and using handrails when using stairs. Avoid walking on uneven or unstable surfaces. Keep work surfaces dry, clean, orderly and free of items that could lead to slips, trips or falls.

3. **PRECAUTIONS AND LIMITATIONS (continued)**

- Wear proper PPE (leather gloves) when performing rounds when corrections that require hands-on manipulation of system or system components is necessary.
- Personnel **SHALL** wear safety shoes and safety glasses with side shields when performing rounds.
- The Transient Combustible Exclusion Zone (a 10-foot perimeter surrounding the Dome TA-54-375 PermaCon and marked on the dome floor), is not applicable when the Dome is designated as a STORAGE AREA. The Transient Combustible Exclusion Zone is applicable only when Dome TA-54-375 is designated as a Sort, Segregate, and Size Reduction (SSSR) AREA. Transient combustibles needed to perform round sheet inspections are controlled in accordance with EP-AREAG-FO-AP-1184, TA-54 Area G Transient Combustible Control.
- Combustible materials located within the dome shall be minimized at all times.
- Not Applicable (N/A) is documented in the blocks on the round sheet during the performance of this procedure indicating information that is not required to be recorded.
- Calibrated instruments/gauges used to verify parameters on this round sheet are required in order to demonstrate a level of formality and traceability and thus **SHALL** have satisfied the calibration interval requirements. Instruments/gauges that do not satisfy the calibration interval requirement **SHALL** be reported to supervision and documented on the round sheet.
- Use of a ladder may be required to read gauges and the individual **SHALL** be knowledgeable in ladder safety. Workers **SHALL** maintain a three-point contact with hands and feet while climbing/descending a ladder or while standing on a ladder to read gauges. A ground person **SHALL** be available in the vicinity when using a ladder.

Reference

#### 4. PREREQUISITE ACTIONS

##### Supervisor

[1] **ENSURE** that the procedure is the latest revision, and **IDENTIFY** this document as Working Copy or Information Only on Title Page.

#### 5. PERFORMANCE

The TA-54 Area G Dome 375 PermaCon round sheet is made up of two sections:

- Section 1, External Inspections
- Section 2, Contamination Area (CA) Inspections

The inspections of this round sheet are required to be performed daily.

**NOTE 1** *For detailed instructions for the performance of rounds, and for taking and recording data refer to P315, Conduct of Operations Manual.*

**NOTE 2** *Items under each section may be performed in any order.*

**NOTE 3** *The person recording the information on the round sheet may be someone other than the person collecting the data, such as obtaining information from the Contamination Area. This practice ensures that the paperwork does not become contaminated.*

##### Operator/Designee

[1] **RECORD** the dates (mm/dd/yy) for the Period Covered at the top of each round sheet page.

[2] **RECORD** the actual time (24 hrs) that the rounds are started and **INITIAL** the round sheet.

Reference

5. **PERFORMANCE (continued)**

[3] **IF** an out-of-specification condition is found,  
**THEN:**

[A] **RED CIRCLE** the block on the round sheet.

[B] **NOTIFY** supervision for further guidance.

[C] **RECORD** the deficiency and corrective actions, as applicable, by item number in the Narrative Log of the round sheet, including the name of the supervisor notified.

**NOTE** *An explanation is not required in the Narrative Log for each N/A recorded for the same item or items that are only performed weekly or monthly.*

[4] **IF** "N/A" is recorded for any item on the round sheet  
**THEN PROVIDE** a brief explanation in the Narrative Log.

[5] **IF** an HVAC D/P alarm condition is found (PDIC-001 on CPL-001, PDIC-002 on CPL-002, or PDIC-003 on CPL-003),  
**THEN PERFORM** alarm response in accordance with EP-AREAG-RM-ARP-1150, 375 Permacon Low Cell D/P Alarm.

[6] **COMPLETE** the applicable sections of the round sheet.

[7] **RECORD** the actual time (24 hrs) that the rounds were completed on the round sheet, and **INITIAL** the round sheet.

[8] **PRINT, SIGN, ENTER Z # and DATE** the round sheet.

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**5. PERFORMANCE (continued)**

**NOTE**      *This procedure is **NOT** considered completed until the results have been reviewed and approved by supervision.*

**Supervisor**

[9]    **REVIEW** the round sheet for accuracy and completeness.

[10]   **PRINT, SIGN,** and **ENTER Z#** and **DATE** on the round sheet.

**6. RECORDS**

**Supervisor**

[1]    **ENSURE** that completed round sheets from this procedure are processed as follows:

Record Identification	Record Type Determination	Protection/Storage Methods	Processing Instructions
TA-54 Area G Dome 375 PermaCon Nitrate Salt Storage Round Sheet	QA Record	Supervision <b>SHALL</b> implement a reasonable level of protection to prevent loss and degradation.	When the record is ready for final disposition, the record is transferred to Records Management in accordance with EP-DIR-AP-10003, Record Management Procedure for ADEP Employees.

**7. REFERENCES**

EP-AREAG-RM-ARP-1150, 375 Permacon Low Cell D/P Alarm

EP-DIR-AP-10003, Record Management Procedure for ADEP Employees

P315, Conduct of Operations Manual, Attachment 2, Sections 2.5.3 and 2.5.4





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<b>TA-54 Area G Dome 375 PermaCon Nitrate Salt Storage Round Sheet</b>					Period Covered (mm/dd/yy) (5.[1]) _____ to _____						
<b>Section 1 – External Inspections</b>					Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Equipment Checked	Unit	MIN	NORM	MAX							
1.25 FS-GPW-001 (FSS Water Riser Gauge Static Press.)	psi	86	≥ 86 (As-Found Value)								
1.26 FS-GPW-002 (FSS N <sub>2</sub> Supply Riser Press.)	psi	35	≥ 35 but ≤ 55 (As-Found Value)	55							
1.27 FS-TI-001 (FSS Riser Room Temperature)	°F	40	≥ 40 (As-Found Value)								
1.28 Personnel Entry/Exit doors into Cells 1, 2, and 3			SAT (Not obstructed)								
1.29 Emergency eye/body wash station			SAT (Pressure minimum of 90 psi)								
1.30 Weekly PermaCon Dock Fire Extinguishers			INITIAL / DATE (Not obstructed, Gauge Green/TID intact / Inspection current)		_____ Initials / Date						
1.31 Cell 3 to Dome Roll-Up Door West			SAT (CLOSED) (Initially CLOSED, opened and closed as necessary)								
1.32 PDI-001 Gauge Cal. (Weekly)			Calibration Due Date (Within Cal. Due Date)		_____ Cal. Due Date				_____ Initials / Date		
1.33 PDI-001 Airlock Northwest outer door	in. w.c.	0.0	≥ 0.0 but ≤ 0.24 (As-Found Value)	0.24							





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Period Covered (mm/dd/yy) (5.[1]) \_\_\_\_\_ to \_\_\_\_\_

5.[10]

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Initial              Z #                      Date

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<b>TA-54 Area G Dome 375 PermaCon Operator Round Sheet</b>					Period Covered (mm/dd/yy) (5.[1]) _____ to _____						
<b>Section 2 – CA Inspections</b>					Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Record Actual Time Rounds Started (Time / Initial) 5.[2]											
Note: The specified actions below must be completed and all deficiencies must be evaluated by supervision to determine whether work may commence in the PermaCon.					1. Record the actual as found condition / position / reading. 2. Red Circle the block if the as-found condition is not as required. Record the deficiency and corrective action(s) in the narrative section including the name of the supervisor who was notified. 3. If condition / position / reading can be returned to <b>SAT</b> or <b>NORM</b> during shift, record in the Narrative Section. 4. Steps may be performed in any order.						
Equipment Checked	Unit	MIN	NORM	MAX							
2.1 Cell 1 Thermostat (TT-300)	°F	40	(Record temperature)	90							
2.2 Cell 2 Thermostat Temperature (TT-200)	°F	40	(Record temperature)	90							
2.3 Cell 3 Thermostat (TT-100)	°F	40	(Record temperature)	90							
2.4 DRE-006 – Cell 1 to Cell 2 Roll-Up Door Northeast	ft	1	SAT (PARTIALLY OPEN) (Opened and closed as necessary)	2							
2.5 DRE-004 – Cell 1 to Cell 2 Roll-Up Door Southeast	ft	1	SAT (PARTIALLY OPEN) (Opened and closed as necessary)	2							
2.6 DRE-007 – Cell 2 to Cell 3 Roll-Up Door East	ft	1	SAT (PARTIALLY OPEN) (Opened and closed as necessary)	2							
2.7 Weekly PermaCon Fire Extinguishers			INITIAL / DATE (Not obstructed, Gauge Green/TID intact / Inspection current)		_____ Initials / Date						
Record Actual Time Rounds Completed (Time / Initial) (5.[7])											

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Period Covered (mm/dd/yy) (5.[1]) \_\_\_\_\_ to \_\_\_\_\_

5.[8]

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Operator/Designee (print)      Signature      Initial      Z #      Date

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Period Covered (mm/dd/yy) (5.[1]) \_\_\_\_\_ to \_\_\_\_\_

5.[10]

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

Performed By: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Supervisor (print)                      Signature                      Z #                      Date                      Time

