



ESHID-601650

Environment Safety & Health PO Box 1663, MS K491 Los Alamos, New Mexico 87545 (505) 667-4218/Fax (505) 665-3811

National Nuclear Security Administration Los Alamos Field Office, A316 3747 West Jemez Road Los Alamos, New Mexico, 87544 (505) 667-5105/Fax (505) 667-5948

Date: JUL **2 2 2016** Symbol: ADESH-16-098 LA-UR: 16-25162 Locates Action No.: N/A

Mr. John E. Kieling, Chief Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505-6303

Dear Mr. Kieling:

Subject: Settlement Agreement and Stipulated Final Order HWB-14-20, Monthly Progress Report, July 2016

This Monthly Report is submitted as required by Paragraph 35 of the Settlement Agreement and Stipulated Final Order HWB-14-20 (SFO) entered into by the New Mexico Environment Department (NMED) (Complainant) and the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) (Respondents) on January 22, 2016. Paragraph 35 of the SFO requires the Respondents to keep NMED apprised of progress made on the corrective actions specified in SFO Attachment A on a monthly basis. The enclosed Summary Table reports the current status of the referenced corrective actions for the reporting period from June 1 through June 30, 2016.

The Respondents would be pleased to meet with NMED-HWB personnel to discuss and explain the documentation included herein. If you have comments or questions regarding this submittal, please contact Mark P. Haagenstad (LANS) at (505) 665-2014 or David Nickless (EM-LA) at (505) 665-6448.

Sincerely, 4 Hrofic

Michael T. Brandt, DrPH, CIH Associate Director Environment, Safety & Health Los Alamos National Security, LLC Los Alamos National Laboratory

Sincerely, Kimberly Davis Lebak

Manager Los Alamos Field Office U.S. Department of Energy

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MTB:KDL:MPH:SDG/lm

Enclosure: (1) Attachment A to Settlement Agreement and Stipulated Final Order HWB-14-20, Monthly Status Report for Period Ending June 30, 2016

Cy: Ryan Flynn, NMED, Santa Fe, NM, (E-File) Kathryn M. Roberts, NMED, Santa Fe, NM, (E-File) Siona Briley, NMED/HWB, Santa Fe, NM, (E-File) Neelam Dhawan, NMED/HWB, Santa Fe, NM, (E-File) Jody M. Pugh, NA-LA (E-File) Karen Armigo, NA-LA, (E-File) Douglas E. Hintze, EM-LA, (E-File) Peter Maggiore, NA-LA, (E-File) Lisa Cummings, NA-LA, (E-File) Ben Underwood, EM-LA, (E-File) David Nickless, EM-LA, (E-File) Jordan Arnswald, NA-LA, (E-File) Kirsten M. Laskey, EM-LA, (E-File) Craig S. Leasure, PADOPS, (E-File) William R. Mairson, PADOPS, (E-File) Randall M. Erickson, ADEM, (E-File) David Funk, ADEM, (E-File) Enrique Torres, ADEM, (E-File) Cheryl D. Cabbil, ADNHHO, (E-File) Michael T. Brandt, ADESH, (E-File) Raeanna R. Sharp-Geiger, ADESH, (E-File) John McCann, EPC-DO, (E-File) Andrew Montoya, WM-DO, (E-File) Jackie Hurtle, WM-DO, (E-File) Mark P. Haagenstad, EPC-CP, (E-File) Deborah Woitte, LC-ESH, (E-File) Susan McMichael, LC-ESH, (E-File) Deborah L. Guffee, SI-DC, (E-File) Yvette S. Branch, SI-DC, (E-File) Luciana Vigil-Holterman, EPC-CP, (E-File) Shanon D. Goldberg, EPC-CP, (E-File) Paul B. Schumann, EPC-CP, (E-File) Ellen Gammon, OIO-DO, (E-File) Tina M. Sandoval, DSESH, (E-File) Saundra Martinez, OIO-DO, (E-File) lasomailbox@nnsa.doe.gov, (E-File) emla.docs@em.doe.gov, (E-File) locatesteam@lanl.gov, (E-File) env-correspondence@lanl.gov, (E-File) rcra-prr@lanl.gov, (E-File) epccat@lanl.gov, (E-File)







Environment Safety & Health PO Box 1663, MS K491 Los Alamos, New Mexico 87545 (505) 667-4218/Fax (505) 665-3811 National Nuclear Security Administration Los Alamos Field Office, A316 3747 West Jemez Road Los Alamos, New Mexico, 87544 (505) 667-5105/Fax (505) 667-5948

 Date:
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 Locates Action No.:
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Mr. John E. Kieling, Chief Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505-6303

Dear Mr. Kieling:

Subject: Settlement Agreement and Stipulated Final Order HWB-14-20, Monthly Progress Report, July 2016

This Monthly Report is submitted as required by Paragraph 35 of the Settlement Agreement and Stipulated Final Order HWB-14-20 (SFO) entered into by the New Mexico Environment Department (NMED) (Complainant) and the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) (Respondents) on January 22, 2016. Paragraph 35 of the SFO requires the Respondents to keep NMED apprised of progress made on the corrective actions specified in SFO Attachment A on a monthly basis. The enclosed Summary Table reports the current status of the referenced corrective actions for the reporting period from June 1 through June 30, 2016.

The Respondents would be pleased to meet with NMED-HWB personnel to discuss and explain the documentation included herein. If you have comments or questions regarding this submittal, please contact Mark P. Haagenstad (LANS) at (505) 665-2014 or David Nickless (EM-LA) at (505) 665-6448.

Sincerely, Hope

Michael T. Brandt, DrPH, CIH Associate Director Environment, Safety & Health Los Alamos National Security, LLC Los Alamos National Laboratory

Sincerely, Kimberly Davis Lebak

Manager Los Alamos Field Office U.S. Department of Energy

Monthly Status Report, Attachment A to Settlement Agreement and Stipulated Final Order HWB-14-20_ July 2016

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Michael T. Brandt, DrPH, CIH Associate Director Environment, Safety, and Health Los Alamos National Security, LLC Los Alamos National Laboratory Operator

Zlah Kimberly Davis Lebak

Manager Los Alamos Field'Office U.S. Department of Energy Owner/Operator

 $\frac{1/20/1\zeta}{\text{Date Signed}}$

ENCLOSURE 1

Attachment A to Settlement Agreement and Stipulated Final Order HWB-14-20, Monthly Status Report for Period Ending June 30, 2016

ADESH-16-098

LA-UR-16-25162

JUL 2 2 2016

Enclosure 1 Attachment A to Settlement Agreement and Stipulated Final Order HWB-14-20, Monthly Status Report for Period Ending May 31, 2016

| Ordered | | Торіс | Response Actions | | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---|--|---------------------------------------|--|--------------------|--------------------|-----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| 1 | 1.0 | No later than 60 days after this Order becomes final, Respondents shall submit to NMED a written report describing any and all actions Respondents have taken to prevent any recurrence of violations described herein. The written report shall include changes to procedures that Respondents have implemented already. | ACO-1 Written report - Description of actions Respondents have taken/ will take to prevent recurrence NOTE: Discussion of the following ACO Paragraph 129 response actions will be included in the Written Report | | ACO-1 Written report with enclosures noted for ACO 129 below | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.1 | | Standing Order for Area G – Restrict Nitrate Salt waste processing | | ADEP Standing Order, "Restriction on Processing Nitrate Salt", TA-54 AREA G, EP- AREAG-SO-1242, Rev.0 | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.2 | | Standing Order for All EWMO Facilities – Pause ALL legacy TRU waste processing at EWMO- supported facilities | | ADEP Standing Order, "EWMO Legacy TRU Waste Pause", EP-DIV- SO-20222, R.1 | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Торіс | Response Act | tions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---------------------------------|--|---------------------------------------|---|--------------------|--------------------|-----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| 1 | 1.3 | | Standing Order for All [Laboratory Wide] Waste Generators – Waste Treatment Requirements – Lab-wide requirement for environmental compliance staff involvement in waste processing or treatment project planning | | ADESH issued Standing Order, "Waste Treatment Requirements" | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.4 | | Centralizing Environmental Compliance activities within ADESH for LANL | | ENV Organization Chart (Before incident) ADESH organization Chart (After incident) Brief summary of how the organizational changes address the violations cited (i.e., how the reorganization intends to fix the problems the previous organization failed to identify/prevent) | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.5 | | Introduction of Senior Management Team with technical background to understand complexity of chemical operations. | | ADEP Organization Chart (Before incident) ADEP organization Chart (After incident) Brief summary of how the organizational changes address the violations cited (i.e., how the reorganization intends to fix the problems the previous | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Торіс | Response Ad | ctions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|------------------------------|--|---------------------------------------|--|--------------------|--------------------|-----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ^{II} | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | | | organization failed to identify/prevent), timeline and bios. | | | |
| 1 | 1.6 | | Develop Briefing to Senior Management | | Briefing Summary Attendance Metrics | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.7 | | Standing Order for incorporation of Exhibit F ENV review of subcontract scope and requirements for LANL Permit Compliance | | Standing Order for Subcontractor ESH Oversight, ADESH-SO- 004, Rev.0 | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.8 | | Review of P1020-2, Laboratory Document Control | | Memo documenting review of LANL P1020- 2 and basis for no revision in regards to ACO requirements. | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Topic | Response A | ctions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---------------------------------|---|--|--|--------------------|---|--|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ¹ | Completion Date | Completion Date | Comments |
| 1 | 1.9 | | Training - Education and training of waste management workers (managers, supervisors, technicians, generators) to recognize when processing becomes treatment. The following have been revised and/or developed and delivered to the appropriate audiences: McCoy's training DEP/WMC RCRA Compliance training RCRA Refresher for Waste Managers training OJT training for TSD inspectors | Waste Generation Overview, Course 23263 RCRA Personnel Training (Live), Course 7488 RCRA Refresher, Course 28582 Waste Generation Overview Annual Refresher, Course 21464 | Summary of training completed and training planned McCoy's 2015 RCRA Hazardous Waste Seminar (3-day), Course Summary Waste Management Coordinator (WMC) and ENV Deployed staff (DEP) Environmental Personnel RCRA Compliance Training – Live Briefing (March 25, 2015) - Summary RCRA Refresher for Waste Managers, Course 28426 Waste Generation Overview , Course 23263 Waste Generation Overview Annual Refresher, Course 21464 RCRA Personnel Training (Live), Course 7488 RCRA Refresher, Course 28582 NOTE: The RCRA | 22-March-16 | With the exception of listed In- Progress/Ongo ing tasks, Documentation provided as Evidence of completion was provided in the March 22, 2016 SFO Response. The In- Progress/Ongo ing tasks are on track for 2016 completion and final submittal date is TBD. | Training planned is in progress and on track for 2016 completion, including: -Review and update of the RCRA Personnel Training, Course #7488 and RCRA Refresher, Course #7488 and RCRA Refresher, Course #28582 -On-the-Job Training (OJT) for TSD Inspectors, Course #27745, -Subcontractor Technical Representative (STR) Training, Course #45250; -Subcontractor Technical Representative |

| Ordered | | Торіс | Response A | ctions | Documentation to | Target | Actual | Status/ |
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| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ^{il} | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | | | Refresher for Waste Managers Training - Course 28426 to be included as a requirement for Subcontract Technical Representatives (STRs), as noted in the STR Qualification Standard NOTE: Both RCRA Personnel Training, [Course 7488] and RCRA Refresher, [Course 28582] have been reviewed and revised to bolster the LANL HWF permit detail. Both courses are required training for all Subcontract personnel working on LANL property, as noted in Subcontract Exhibits. LANL Training Analysis for On-the-Job Training for TSD Inspectors, Course 27745 – Summary | | | (STR) Refresher, Course #46795 |
| | | | | | Training Analysis for RCRA Refresher for Waste Managers, Course 28426 - | | | |

| Ordered | | se (Ordered Action description) | Response A | ctions | Documentation to | Target | Actual | Status/ Comments |
|---------------|-----------------|---------------------------------|------------|---------------------------------------|---|--------------------|--------------------|---------------------|
| Action no. | Response No. | | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | |
| | | | | | Summary Training Analysis for <i>RCRA Personnel</i> <i>Training</i> , Course 7488 – Summary Training Analysis for <i>RCRA Refresher</i> , Course 28582– Summary Training Analysis for <i>Waste Generation</i> <i>Overview</i> , Course 23263– Summary Training Analysis for <i>Waste Generation</i> <i>Overview Refresher</i> , Course 21464 – Summary | | | |

| Ordered | | Торіс | Response Ac | tions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|------------------------------|--|---------------------------------------|---|--------------------|--------------------|-----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| 1 | 1.10 | | Waste Profile Form Validation for Mixed and Hazardous Waste Review of the characterization of all currently active LANL Hazardous waste streams. | | A report which identifies the list of active hazardous waste streams reviewed by the generator/ WMC teams and WM Division, with conclusions/ summary | 22-March-16 | 22-March-16 | Completed |
| 1 | 1.11 | | Evaluation of RCRA Self- Assessment program needs (Compliance Technical Assistance Program or CTAP) | | CTAP Evaluation and Gap Analysis Report with Compliance Technical Assistance Program (CTAP) Procedure (ENV-CP- QP-115) as enclosure. | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Торіс | Response Ac | tions | Documentation to | Target | Actual | Status/ |
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| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| 1 | 1.12 | | Operating Record Validation - Validation of the LANL Operating Record at all TSDs (TAs 3, 50, 54, 55, 63, 14, 16, 36, 39 permitted and interim status areas walk down). | | Summary of Compliance Technical Assistance Program (CTAP) Procedure (ENV-CP-QP-115) assessments and electronic access to the current document revision upon NMED request. Provide periodic [Semi-annually, or upon NMED request] listing of document(s) revisions. Summary of P409 Tool, ADESH-TOOL-803 Facility TSF Operating Record and EWMO RCRA Permit Operating Record and Compliance Programs, EP-DIV-AP- 21, R1.LANL to provide electronic access to the current document(s) revision upon NMED request. Provide periodic [Semi-annually, or upon NMED request] listing of document(s) revisions. | 22-March-16 | 22-March-16 | Completed Respondents will provide semi-annual listing of document(s) revisions. First submittal is planned for July 2016. |
| 1 | 1.13 | | WCATS Data Change Control - Implementation of Waste Compliance and Tracking System (WCATS) change control process. | | Summary of ENV- RCRA-TOOL-719 Using WCATS to Submit Change Requests, and electronic access to the current document(s) revision Provide | 22-March-16 | 22-March-16 | Completed Respondents will provide semi-annual listing of document(s) |

| Ordered | | Торіс | Response A | Actions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---------------------------------|--|---------------------------------------|--|--------------------|--------------------|--|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | | | periodic [Semi-annually, or upon NMED request] listing of document revisions. | | | revisions. First submittal is planned for July 2016. |
| 1 | 1.14 | | Waste processing procedure review. Implementation of procedure reviews by ENV-CP. Summary of findings and procedure revisions to date. | Procedure reviews ongoing. | ENV-CP-AP-200, Regulatory Procedure Review of Waste Management Procedures and electronic access to the current document revision. Provide periodic [Semi-annually, or upon NMED request] listing of document revisions. ACO-9 response will provide details on number and type of procedures identified and review status. | 22-March-16 | 22-March-16 | EPC-CP procedure reviews will continue as new LANL procedures are created or existing ones revised. They are ongoing. |

| 1 | 1.15 | EOC Review The non-compliances addressed in the EOC self- disclosure letter are the result of an extensive review of all legacy non- nitrate salt wastes processed under deficient waste management procedures at LANL. | | EOC Self Disclosure Letter - LA-UR-15- 26713, DIR-15-127 EOC Completion Letter- (ADESH-15-162) EOC Plan (EP-PLAN- 10075, R0) LA-CIN01 Management Plan, (WD-PLAN- 20280, R0) | 22-March-16 | 22-March-16 | Completed |
|---|------|--|---|--|-------------|--|---|
| | | EOC Completion Letter- (ADESH-15-162) Voluntarily reporting of non-compliances associated with MTRU wastes | | | | | |
| | | EOC Plan (EP-PLAN- 10075, R0) - A plan for managing Extent of Condition by evaluating past remediation activities performed on transuranic (TRU) and mixed TRU (MTRU) waste | | | | | |
| | | LA-CIN01 Management Plan, (WD-PLAN-20280, R0) Defined steps to conservatively manage the LA-CIN01 waste containers and identify and apply appropriate EPA hazardous waste codes. | | | | | |
| 1 | 1.16 | Description of actions being taken to strengthen Subcontractors' requirements to follow LANL ES&H policies and | Exhibit F1 will address Industrial Health hazards and controls | Description of plans to Implement major Exhibit F re-organization to result in two Exhibits (F1 and F2) | 22-March-16 | Subcontractor' s requirements are defined in Exhibit F. Exhibit F is | No changes from last month. Exhibit F1/Exhibit F2 activities are in |

| Ordered | | Торіс | Response A | ctions | Documentation to | Target | Actual | Status/ |
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| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ¹ | Completion Date | Completion Date | Comments |
| | | | requirements through the Exhibit F conditions of their subcontracts. Strengthening of Contract Exhibit F Field Verification Requirements for environmental risks. | Exhibit F2 will address Environmental Compliance and Waste Management requirements Summary of revisions proposed to strengthen P850 - Subcontract Technical Representative Procedure training and subcontractor oversight | | | provided for Low, Moderate or High hazard work. Updates to the Low, Moderate and High hazard Exhibit F documents were posted for use on 23- May-16, 27- April-16 and 26-May-16, respectively (available upon request). Exhibit F1/Exhibit F2 are planned future documents to provide enhanced document control of subcontract clauses. Exhibit F1 and F2 activities are in progress, ongoing and on-track. | progress, ongoing and on-track. P850 revision remains on schedule for publication and initial implementation in October 2016. |
| | | | | | | | subcontract clauses. Exhibit F1 and F2 activities are in progress, ongoing and | |

| Ordered | | Topic | Response A | ctions | Documentation to | Target | Actual | Status/ Comments |
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| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ¹ | Completion Date | Completion Date | |
| | | | | | | | process and on-track. | |
| 2/3 | 2/3.1 | T. | Submit a Permit Modification Request (PMR) for treatment of Nitrate Salt wastes | PMR | Permit Modification Request | 01-July-16 | 30-June-16 | was completed. PMR was submitted to NMED-HWB for review and approval on |
| 2/3 | 2/3.2 | No later than 60 days after this Order becomes final, Respondents shall submit to NMED for review and comments the following: A. Reports on the scientific studies Respondents have conducted regarding LANL nitrate salt waste streams since February 14, 2014. B. The nitrate salt waste treatment options assessment report. C. A Plan to determine treatment methods for the nitrate salt waste streams. The Plan shall include a proposed schedule for submission of the following: i. Sampling and analysis plan for unremediated nitrate salt waste tii. Surrogate waste testing plan | A. Remediated Nitrate Salt Chemical Reactivity Study B. Nitrate Salt Waste Options Assessment Report C. Remediation/ Scheduling Plan as discussed in technical meetings. The Plan shall include referenced plans and a schedule for the surrogate waste test report. NOTE: The response to item C.iii [Final Report on Surrogate Waste Tests (Final Title TBD)] will include UNS and SWERI analytical results. NMED requested LA- CIN01.001 Liquid | Final Report on Surrogate Waste Tests | Chemical Reactivity and Recommended Remediation Strategy for Los Alamos Remediated Nitrate Salt (RNS) Wastes, D. L. Clark, D.J. Funk, LA- UR-15-22393 Nitrate Salt Options Assessment Report LA- UR-15-25355 Remediation/ Scheduling Plan, including the following: 1. Sampling and Analysis Plan for Unremediated Nitrate Salt Waste, ENV-DO- 15-0248, LA-UR-15- 26357 2. Treatment Study Work Plan for Nitrate salt Transuranic (TRU) Wastes | 16-May-16 for first set of reports and 01-July-16 for final reports | 30-June-16 | completed surrogate testing were submitted on 15-April-16 and 13-May- 16. Final summary report was submitted on |

| Ordered | | Торіс | Response Actions | | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---|---|---------------------------------------|---|--------------------|--------------------|----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | iii. Report on surrogate waste tests iv. Safe handling and treatment plan for both remediated and unremediated nitrate salt wastes | Sampling Information Letter (ENV-DO-15-0313, LA-UR-1528468) | Ungoing | 3. A schedule for the Final Report on Surrogate Waste Tests (Final Title TBD) [NOTE: Safe Handling and Treatment Plan for Remediated Nitrate Salt (RNS) and Unremediated Nitrate Salt (RNS) wastes is addressed under the Remediation/ Scheduling Plan] NMED requested LA- CIN01.001 Liquid Sampling Information Letter (ENV-DO-15- 0313, LA-UR-1528468) with the following attachments: List of Containers sampled; List of Containers not sampled, but attempted; List of Containers of Interest; RTR Videos of Containers of Interest; | | | |

| Ordered Action no. | Response No. | Topic (Ordered Action description) | Response A | ctions | Documentation to Provide as Evidence of Completion ⁱ | Target | Actual Completion Date | Status/ Comments |
|--------------------------|-----------------|--|--|---------------------------------------|---|--------------------|------------------------------|---------------------|
| | | | Complete | In-Progress/ Ongoing ⁱⁱ | | Completion Date | | |
| 4 | 4.0 | Immediately upon this Order becoming final, Respondents shall begin review of every mixed TRU waste stream which is currently managed or generated at LANL to verify that the characterization of the waste streams is accurate, sufficient, and updated. Respondents shall complete and document their review in the Facility Operating Record within 60 days after this Order becomes final. | Summary report describing the MTRU waste stream characterization verification review | | Summary report including development of Lessons Learned (to be described in summary report text). | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Торіс | Response Ad | ctions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---|--|---------------------------------------|---|--------------------|--------------------|--|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| 5 | 5.0 | No later than 15 days after this Order becomes final, Respondents shall submit to NMED for review, t h e methodology by which Respondents conduct their annual reevaluation of all hazardous waste streams. | Description of Procedure used for waste streams annual reevaluation | | Summary of WSP Annual Review Methodology per <i>WCATS User's Manual,</i> MAN-5004, R3, Sections 4.3.1.4 and 4.2.1.24 | | 03-March-16 | Completed |
| | | | | | Summary of procedure, Reviewing and Approving Waste Stream Profiles (WPS) in WCATS, WM-SVS- AP-201 and WCATS User's Manual to describe the process to enter new and review WSPs, (Sections 4.2.1 and 4.2.2). Provide electronic access to the current document revision. Provide periodic [Semi-annually, or upon NMED request] listing of document revisions. | | | Respondents will provide semi-annual listing of document(s) revisions. First submittal is planned for July 2016. |
| 6 | 6.0 | No later than 60 days after this Order becomes final, Respondents shall submit to NMED any documentation Respondents have entered in the Facility Operating Record for the most recent, annual reevaluation of all hazardous waste streams at LANL. | Copy of Operating Record documentation (selected WCATS printouts) for all active RCRA waste stream profiles | | Copy of Operating Record documentation (select WCATS printouts) for all active RCRA waste stream profiles with WSP number Brief description of the waste stream Date the WSP was activated | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Topic (Ordered Action description) | Response Actions | | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|--|------------------|---------------------------------------|--|--------------------|--------------------|--|
| Action no. | Response No. | | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | | | Date of the last annual review The following WCATS fields were discussed among the technical team and the list updated to provide data: WS_ANCILLARY, C_MASTER_TRU. MATRIX_CODE, , WS_COMPOSITIO N, access to WS_DOCUMENTA TION via the WCATS Application, access to WS_EDITLOG via the WCATS Application, relevant summary of WS_EPACODE, Summary of C_PARAMETER at WSP level, WS_WORKPATH – active options, relevant summary of C_SHIPDESC.HM_ ID- >DOT_HAZMAT.D OT_ID_NO, Relevant summary of | | | READ-ONLY access to WCATS through a LANL WCATS navigator will be provided to NMED staff |

| Ordered | Response No. | Торіс | Response Ac | tions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|--|--|---------------------------------------|---|--------------------|--------------------|-----------------------|
| Action no. | | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | | | WS_CHAR_METH OD, READ-ONLY access to WCATS provided to NMED staff through a LANL WCATS navigator, upon NMED request. | | | upon NMED request. |
| 7 | 7.0 | No later than 60 days after this Order becomes final, Respondents shall develop and submit to NMED procedures to implement an AK communication system within and between appropriate LANL organizations, including subcontractors, to ensure that AK documentation is accurate, sufficient, and updated. | Description of procedure(s) for AK communication system, internal and external by establishing a Waste Characterization and Processing Review Process To review waste stream profiles, associated documentation, waste processing procedures and address complex waste management issues. To establish communication systems and protocol to ensure AK documentation is accurate, sufficient, and updated. To include provisions to ensure/ strengthen communication of AK information between subcontractors, LANL Subcontract Technical | | Copy of WM-AP-0005, Waste Characterization and Processing Review | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Торіс | Response A | ctions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---|---|---|--|--------------------|--------------------|-----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ¹ | Completion Date | Completion Date | Comments |
| | | | Representatives (STRs) and appropriate LANL organizations. | | | | | |
| 8 | 8.0 | No later than 60 days after this Order becomes final, Respondents shall revise and submit to NMED the CCP/LANL interface agreement to ensure appropriate organizations and subject matter experts communicate effectively and timely regarding changes in waste management procedures, waste generation, waste treatment, waste repackaging and remediation, waste stream delineation, and waste characterization procedures to ensure that AK documentation is accurate, sufficient, and updated. | Status report on CCP/LANL interface agreement revisions | Ongoing active participation in CCP IA development | Copy of CCP/LANL Interface Agreement [revised, approved] | 22-March-16 | 22-March-16 | Completed |
| 9 | 9.0 | No later than 60 days after this Order becomes final, Respondents shall revise and submit to NMED procedures and/or policies that ensure the proper LANL organizations and subject matter experts review and then approve or reject proposed waste management procedural changes. | Description of Process(es) for appropriate review of procedures that have waste management aspects or impacts** (See list under <i>Documentation</i>) • Reference to Waste Characterization and Processing Review process used to resolve difficult waste | | Summary of [revised] policies and/or procedure(s) that have SME review and approval of proposed waste management aspects or impacts, including: • Summary of revised P409 Waste Management | 22-March-16 | 22-March-16 | Completed |

| Ordered | | Торіс | Response Actions | | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|------------------------------|------------------|---------------------------------------|---|--------------------|--------------------|----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ^{II} | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | technical issues | | ADEP Technical Procedure Development, EP- AP-10007, R0; ENV-CP-AP-200 Regulatory Procedure Review of Waste Management Procedures; and ADEP Document Control, EP-AP- 10001, R0 Waste Characterization and Processing Review, WM-AP-0005, and Summary of Revised P409 – associated Tools ADESH-IG- TOOL-101 – Waste Management Glossary ADESH-AP- TOOL-111 – Waste Characterization n ADESH-AP- TOOL-115 Waste Characterizatio ADESH-AP- TOOL-115 Waste Compatibility ADESH-AP- TOOL-206 – Hazardous Waste | | | |

| Ordered | | Торіс | Response A | Actions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---------------------------------|------------|---------------------------------------|--|--------------------|--------------------|--|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| | | | | | ADESH-AP- TOOL-300 – Radioactive Waste Management ADESH-AP- TOOL-314 – Radioactive Waste Characterizatio n ADESH-AP- TOOL-803 – Facility Operating Record ADESH-AP- TOOL-810 – Waste Processing at Permitted Units ADESH-AP- TOOL-901 – Elementary Neutralization ADESH-AP- TOOL-901 – Elementary Neutralization ADESH-AP- TOOL-902 – Absorption without a Permit ADESH-AP- TOOL-906 – Treatment by the Waste Generator Electronic access to the current document(s) | | | Respondents will provide semi-annual listing of document(s) revisions. First submittal is planned for July 2016. |

| Ordered | | Торіс | Response Ac | tions | Documentation to | Target | Actual | Status/ |
|---------------|-----------------|---------------------------------|---|---------------------------------------|---|--------------------|--------------------|-----------|
| Action no. | Response No. | (Ordered Action description) | Complete | In-Progress/ Ongoing ⁱⁱ | Provide as Evidence of Completion ¹ | Completion Date | Completion Date | Comments |
| | | | | | revision will be provided upon NMED request. | | | |
| | | | | | LANL will provide periodic [Semi-annually, or upon NMED request] listing of document revisions. | | | |
| 9 | 9.1 | | Description of Revisions to P300, Integrated Work Management | | Memorandum documenting review and evaluation. Evaluation results indicate no revision required to address violations. | 22-March-16 | 22-March-16 | Completed |
| 9 | 9.2 | | Revise TA-55 Procedures to incorporate ENV-CP reviews | | Technical Procedure Use and Development Process, PA-AP-01016 | 22-March-16 | 22-March-16 | Completed |
| 9 | 9.3 | | Define process for TA-54 Procedures to incorporate ENV-CP reviews | | ADEP Technical Procedure Development, ER-AP- 10007, R0 | 22-March-16 | 22-March-16 | Completed |
| 9 | 9.4 | | Revise WETF Procedures to incorporate ENV-CP reviews | | Document Development, WETF- AP-10, Rev. H | 22-March-16 | 22-March-16 | Completed |

| Ordered Action no. | Response No. | Topic (Ordered Action description) | Response Actions | | Documentation to | Target | Actual | Status/ |
|--------------------------|-----------------|--|------------------|---------------------------------------|---|--|--|----------|
| | | | Complete | In-Progress/ Ongoing ^{II} | Provide as Evidence of Completion ⁱ | Completion Date | Completion Date | Comments |
| Other | Other | | | | Monthly reports | Monthly, on 22 nd of each month | Monthly, on or before the 22 nd of each month (all reports to date) | Ongoing |

i Some items being submitted as "Evidence of Completion" will not be "approved" by NMED (e.g., those subject to NMED review and comment); however, pursuant to paragraph 49 of the Settlement Agreement, if NMED disapproves any timely submission required by the Ordered Actions (e.g., response action), NMED shall identify the specific reason(s) for the disapproval, and the Respondent shall have the opportunity to correct any deficiencies and supplement the submission.

ii Ongoing Actions as of March 22, 2016 are listed in the In-Progress/Ongoing Actions column.