



United States Government

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: May 30, 2002

REPLY TO
ATTN OF: CBFO:NTP:KWW:VW:02-2545:UFC:5822

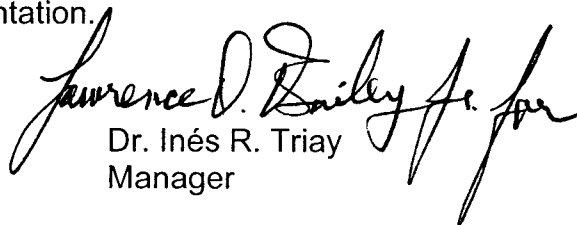
SUBJECT: Annual Re-Evaluation of INEEL TRU Waste Program Compliance

TO: Warren E. Bergholz, Jr., Acting Manager, DOE-ID

The Carlsbad Field Office (CBFO) has completed its annual re-evaluation of the Idaho National Engineering and Environmental Laboratory's (INEEL) TRU waste program. The annual recertification audit (A-01-14) was conducted July 30 to August 3, 2001. An additional audit (A-02-21) was conducted April 9 -11, 2002 to evaluate the Waste Assay Gamma Spectrometer (WAGS) and Stored Waste Examination Pilot Plant (SWEPP) Gamma Ray Spectrometer (SGRS) systems in absolute mode, the Data Review Expert System (DRXS) for NDA validation, and solidified organic waste streams for NDA characterization and certification. The INEEL technical and quality assurance programs are currently in compliance with the "Waste Analysis Plan" (WAP) of the *WIPP Hazardous Waste Facility Permit* (HWFP), the *Quality Assurance Program Document* (QAPD), the *CH Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (WIPP CH-WAC), the *TRUPACT-II Authorized Methods for Payload Control* (TRAMPAC) and other CBFO requirements and standards.

Based on the annual re-evaluation audit A-01-01 and audit A-02-21, certification authority is therefore continued or expanded to include the following activities: transportation, headspace gas sampling and analysis, solid sampling and analysis, visual examination, real-time radiography, and nondestructive assay of CH-TRU debris and organic and inorganic homogeneous solids. INEEL may now begin shipping organic homogeneous solids to the WIPP. Waste assayed after May 17, 2002 must be done in accordance with the new *Contact-Handled Transuranic Waste Acceptance Criteria*, DOE/WIPP-02-3122, Revision 0. See the attachments to this memorandum for complete lists of certified procedures, documents, and systems.

TRU waste characterization, certification, or transportation using significantly revised or new processes, procedures, or systems must be evaluated by the CBFO prior to their implementation.



Dr. Inés R. Triay
Manager

Attachments

020537



Warren E. Bergholz, Jr.

-2-

May 30, 2002

cc: w/attachments
T. Harms, DOE-HQ
K. Watson, CBFO
R. Knerr, CBFO
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T. Monk, INEEL
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CBFO Mailroom



INEEL ANNUAL RECERTIFICATION

The CBFO Office of the National TRU Program Manager and Quality Assurance Manager have evaluated the documentation supporting the compliance and/or continued compliance of the INEEL TRU waste programs. The recommendation to the CBFO Manager is that the INEEL certification authority be continued or expanded for the following activities: transportation, headspace gas sampling and analysis, solid sampling and analysis, visual examination, real-time radiography, and nondestructive assay of CH-TRU debris and organic and inorganic homogeneous solids waste. Attachments 2 and 3 provide complete lists of applicable procedures and systems, including those evaluated during audit A-01-14 and A-02-21.

STATUS

- All program elements remain complete and current.
- The following INEEL required site documents have been revised, approved, and are current. These program documents demonstrate how the site complies with CBFO requirements.
 - **QAPjP** – *Idaho National Engineering and Environmental Laboratory Quality Assurance Project Plan for the Transuranic Waste Characterization Program*, PLN-190, Revision 11.
 - **GGTP QAPjP** – INEEL Quality Assurance Project Plan for Gas Generation Testing Program, PLN-508, Revision 2.
 - **WCP** – *Program Plan for Certification of INEEL Contact-Handled Stored Transuranic Waste*, PLN-579, Revision 4.
 - **QAP** – *TRU Waste characterization Certification, and Transportation Quality Program Plan*, PLN-182, Revision 7.
 - **TRAMPAC and QA Plan** – *INEEL TRUPACT-II Authorized Methods for Payload Control (TRAMPAC) Compliance Plan*, PLN-577, Revision 2.
 - **Packaging QA Plan** – (Section 4.3 of WCP)
 - Standard operating procedures (see attachment 3 for complete procedure list)
- INEEL participation in the following performance demonstration programs (PDPs):
 - RCRA PDP -- Participation was satisfactory in cycle 7A (Memo CBFO:NTP:MRB:VW:01-0518, dated February 1, 2001) and cycle 8A (Memo CBFO:NTP:MRB:VW:01-1011, dated May 9, 2001)
 - NDA PDP Drums – Participation was satisfactory in cycle 8A (Memo CBFO:NTP:MRB:VW:01-1786 dated November 20, 2001)
 - HSG PDP participation was satisfactory in cycle 16A (Memo CBFO:NTP:MRB:VW:02-2156 dated March 14, 2002)
- CBFO completed audit A-01-14 on August 2, 2002 and A-02-21 on April 11, 2002.
- EPA issued EPA report for Inspection No. EPA-INEEL-7.01-8 on August 15, 2001 approving the WAGS system. EPA also participated in A-02-21 and issued EPA report for Inspection No. EPA-INEEL-04.02-08 dated May 13, 2002 that approved the SGRS and WAGS systems for absolute assay.
- All RCRA related CARs associated with A-01-14 have been verified and closed. There were no CARs generated in A-02-21.

RECOMMENDATION

The recommendation to the CBFO Manager is to continue the INEEL transportation and waste certification authority to include the following processes and systems evaluated during A-01-14 and A-02-21: transportation, headspace gas sampling and analysis, solid sampling and analysis, visual examination, real-time radiography, and nondestructive assay of CH-TRU debris and organic and inorganic homogeneous solids waste. It is recommended that the authority be limited to those systems and processes audited during audits A-01-14 and A-02-21. Attachments 2 and 3 are lists of systems and procedures that constitute the bounds of the INEEL transportation and waste certification authority.

CONCURRENCE



Ms. Ava L. Holland
Quality Assurance Manager

5/30/02
Date



Mr. Kerry W. Watson
CBFO Assistant Manager
National TRU Program

5/29/02
Date

INEEL CERTIFIED EQUIPMENT LIST

| WIPP # | Site Equipment # | Site Description | Components | Software |
|----------------------|------------------|---|--|----------------------------|
| Headspace Gas | | | | |
| 3HE1 | GC/MS-E | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930 | GC/MS (Method described in procedure ACMM-9930) | HP Enviroquant Chemstation |
| 3HE2 | GC/MS-F | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930 | GC/MS (Method described in procedure ACMM-9930) | HP Enviroquant Chemstation |
| 3HE3 | GC/MS-G | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930 | GC/MS (Method described in procedure ACMM-9930) | HP Enviroquant Chemstation |
| 3HE4 | GC/MS-H | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930 | GC/MS (Method described in procedure ACMM-9930) | HP Enviroquant Chemstation |
| 3HE5 | GC-1 | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9910 | GC-FID (Method described in procedure ACMM-9910) | HP Chemstation |
| 3HE6 | GC-2 | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9910 | GC-FID (Method described in procedure ACMM-9910) | HP Chemstation |
| 3HE7 | GC-5 | Environmental Chemistry Lab - Headspace gas hydrogen and methane analysis specified in procedure ACMM-9925 | GC-TCD (Method described in procedure ACMM-9925) | EZ Chrom 200 |
| 3HE8 | GC-6 | Environmental Chemistry Lab - Headspace gas hydrogen and methane analysis specified in procedure ACMM-9925 | GC-TCD (Method described in procedure ACMM-9925) | EZ Chrom 200 |
| 3HE9 | GC-7 | Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9910 | GC-FID (Method described in procedure ACMM-9910) | HP Chemstation |
| 3HA1 | VOA-1 | Analytical Chemistry Lab – Total purgable volatile organic compound analysis specified in procedure ACMM-9260 | GC/MS (Method described in ACMM-9260) | Finnigan Magnum |
| 3HA2 | VOA-3 | Analytical Chemistry Lab – Total purgable volatile organic compounds specified in procedure ACMM-9260 | GC/MS (Method described in ACMM-9260) | HP Chemstation |
| 3HA3 | GC-1 | Analytical Chemistry Lab – Total non-halogenated volatile organic compounds specified in procedure ACMM-9441 | GC-FID (Method described in ACMM-9441) | HP Chemstation |
| 3HA4 | GC-2 | Analytical Chemistry Lab – Total non-halogenated volatile organic compounds specified in procedure ACMM-9441 | GC-FID (Method described in ACMM-9441) | HP Chemstation |
| 3HA5 | SV-2 | Analytical Chemistry Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270 | GC/MS (Method described in ACMM-9270) | Varian |
| 3HA6 | SV-3 | Analytical Chemistry Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270 | GC/MS (Method described in ACMM-9270) | Varian |
| 3HA7 | SV-4 | Analytical Chemistry Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270 | GC/MS (Method described in ACMM-9270) | HP Chemstation |
| 3HM1 | ID 322554 | Analytical Chemistry Lab – Total metals digestion specified in procedure ACMM-8909 | Microwave digester (Method described in procedure ACMM-8909) | NA |

| WIPP # | Site Equipment # | Site Description | Components | Software |
|-----------------------------------|------------------|---|---|--------------------------------------|
| 3HM2 | ID 356094 | Analytical Chemistry Lab – Total metals digestion specified in procedure ACMM-8909 | Microwave digester (Method described in procedure ACMM-8909) | NA |
| 3HM3 | ICP-4 | Analytical Chemistry Lab – Total metals analysis specified in procedure ACMM-2900 | Total metals analysis (Method described in procedure ACMM-2900) | J-YESS |
| 3HM4 | ICP-5 | Analytical Chemistry Lab – Total metals analysis specified in procedure ACMM-2900 | Total metals analysis (Method described in procedure ACMM-2900) | J-YESS |
| 3HM5 | CVAF-1 | Analytical Chemistry Lab – Total metals analysis Hg specified in procedure ACMM-7802 | Total metals analysis Hg specified in procedure ACMM-7802 | Avalon |
| 3HM6 | CVAF-2 | Analytical Chemistry Lab – Total metals analysis Hg specified in procedure ACMM-7802 | Total metals analysis Hg specified in procedure ACMM-7802 | Avalon |
| Nondestructive Assay | | | | |
| 3PA1 | ASY-ASY-1001 | Stored Waste Examination Pilot Plant (SWEPP) Assay System - Pan Assay System supplemented by a gamma spectroscopy measurement provided by the SGRS system in isotopic mode (PAN & SGRS Isotopic) | Passive-Active Neutron (PAN) Assay System | SAS |
| 3PA2 | ASY-ASY-1002 | Stored Waste Examination Pilot Plant (SWEPP) Assay System - Pan Assay System supplemented by a gamma spectroscopy measurement provided by the WAGS system in isotopic mode (PAN & WAGS Isotopic). | Passive-Active Neutron (PAN) Assay System | SAS |
| 3SG1 | SPTR-SPTR-1001 | Stored Waste Examination Pilot Plant (SWEPP) Assay System - SGRS system Absolute Mode | SWEPP Gamma-Ray Spectrometer (SGRS) System | SGAP |
| 3WA1 | WAGS-WAGS-0000 | Stored Waste Examination Pilot Plant (SWEPP) Assay System - WAGS system Absolute Mode | SWEPP Waste Assay Gamma Spectrometer (WAGS) System | SGAP |
| Nondestructive Examination | | | | |
| 3RR1 | RTR-RTR-1001 | Radiography of drums | RTR Unit - Standard setup - Mobile | NA |
| 3RR2 | RTR-RTR-0000 | Radiography of drums | RTR Unit - Standard setup – Fixed | NA |
| Coring | | | | |
| 3SS1 | W0096-563-EC-00 | Argonne National Laboratory – West – Core sampling as specified in procedure HFEF-OI-6910 | Core sampling (Method described in HFEF-OI-6910) | NA |
| Gas Generation Testing | | | | |
| 3GG1 | GGTS-ANL-3501 | Gas generation testing as specified in procedure TPR-1645 | Online GC (Method described in procedure TPR-1645) | EZ Chrom 200, GGTS Excel Application |
| 3GG2 | GGTS-ANL-3502 | Gas generation testing as specified in procedure TPR-1645 | Online GC (Method described in procedure TPR-1645) | EZ Chrom 200, GGTS Excel Application |

INEEL CERTIFIED DOCUMENTS & PROCEDURES LIST

| # | PROCEDURE NUMBER | TITLE |
|-----|------------------|---|
| 1. | ACLP 4.10 | Determination of Method Detection Limits for Gas Analysis |
| 2. | ACLP 4.20 | Sample and QA Nomenclature Conventions for TWCP |
| 3. | ACLP 4.25 | Sample Receiving, Custody, and Storage |
| 4. | ACLP 4.30 | Standards Preparation, Documentation and Storage |
| 5. | ACLP 4.40 | Summa Canister Cleaning |
| 6. | ACLP 4.45 | Gas Transfer Manifold Systems |
| 7. | ACMM-2900 | Determination of Trace Elements by ICP Atomic Emissions Spectrometry |
| 8. | ACMM-7802 | Determination of Mercury by Cold Vapor Fluorescence Spectrophotometry |
| 9. | ACMM-8909 | Microwave Assisted Digestion of Homogeneous Solids |
| 10. | ACMM-9260 | VOCs by Gas Chromatography/Mass Spectrometry |
| 11. | ACMM-9270 | SVOCs by Gas Chromatography/Mass Spectrometry |
| 12. | ACMM-9441 | Determination of Nonhalogenated Volatile Organics by Gas Chromatography |
| 13. | ACMM-9500 | Sample Preparation for SVOCs and PCBs |
| 14. | ACMM-9910 | Analysis of Gas Samples for Alcohols and Ketones by GC/FID |
| 15. | ACMM-9925 | Analysis of Gas Samples for Hydrogen/Methane by Micro GC/TCD |
| 16. | ACMM-9930 | Analysis of Gas Samples for VOCs by GC/MS |
| 17. | EDF-363 | SWEPP Certified Waste Sampling Plan |
| 18. | EDF-909 | TRU Waste Sampling Plan for INEEL |
| 19. | HFEF-OI-6810 | Transuranic Report Inventory System (TRIPS) |
| 20. | HFEF-OI-6862 | TWCP Sample Storage and Shipment |
| 21. | HFEF-OI-6890 | Waste Characterization |
| 22. | HFEF-OI-6910 | TWCP Core Drilling Operations |
| 23. | HFEF-OI-6921 | TWCP Solid Sample Preparation |
| 24. | MCP-196 | Selection, Training, Indoctrination, and Qualification of Personnel Performing Audits |
| 25. | MCP-535 | Inspection and NDE Personnel Certification |
| 26. | MCP-1756 | Gas generation Test System Data Validation |
| 27. | MCP-1757 | Management Assessments for the INEEL TRU Waste Characterization Program |
| 28. | MCP-1783 | TRUPACT II Container Maintenance Program |
| 29. | MCP-1785 | TRIPS Data Management |
| 30. | MCP-1800 | Contact-Handled Transuranic Waste Certification |
| 31. | MCP-1803 | Configuration Control of RWMC Hardware/Software Computer Systems |
| 32. | MCP-1812 | Qualification Test Program |
| 33. | MCP-1815 | RWMC Data Generation Level Data Validation |
| 34. | MCP-1819 | TRUPACT II Receipt, Inspection, and Shipment |
| 35. | MCP-2002 | Analytical Chain-of-Custody |
| 36. | MCP-2008 | Analytical Data Recording, Review and Reporting |
| 37. | MCP-2009 | Analytical Software Control |
| 38. | MCP-2011 | Analytical Logbooks |
| 39. | MCP-2391 | Calibration Program |
| 40. | MCP-2492 | Standards and Calibration Lab Operations |
| 41. | MCP-2502 | Standards and Calibration Lab Calibration Intervals |
| 42. | MCP-2520 | QA Records Management |
| 43. | MCP-2521 | Site Project Data Base |
| 44. | MCP-2527 | DQO Reconciliation at SPO Level |
| 45. | MCP-2528 | Computer Software Control |
| 46. | MCP-2529 | Drum Data Review by the SQAQ |
| 47. | MCP-2530 | SQAQ Data Validation, Checklists and Summary |
| 48. | MCP-2532 | Independent Assessment |
| 49. | MCP-2533 | Reports to Management |
| 50. | MCP-2534 | Level I Surveillances |

| INEEL CERTIFIED DOCUMENTS & PROCEDURES LIST | | |
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| # | PROCEDURE NUMBER | TITLE |
| 51. | MCP-2536 | Project Level Data Verification by the SPM |
| 52. | MCP-2542 | Preparation of Waste Profile Forms |
| 53. | MCP-2544 | INEEL WWIS Manual Data Transfer |
| 54. | MCP-2546 | Visual Examination Process |
| 55. | MCP-2988 | Confirmation, Resolution, and Re-evaluation of Acceptable Knowledge Information |
| 56. | MCP-2989 | Collection, Review, and Management of Acceptable Knowledge Documentation |
| 57. | MCP-2990 | Radioassay Total Uncertainty Process Using Modified Statistical Sample Approach |
| 58. | MCP-2991 | Radioassay Total Uncertainty Process Using Statistical Sampling Approach |
| 59. | MCP-2992 | QA Program Surveillances |
| 60. | MCP-2993 | TWCP Action Tracking and Trend Analysis |
| 61. | MCP-2995 | Project Level Electronic Data V and V By the SDVO |
| 62. | MCP-2996 | Electronic Data Review by the SDVO |
| 63. | MCP-2997 | SQAO Electronic Data Review Checklists and Summary |
| 64. | MCP-9178 | Training and Qualification |
| 65. | MCP-9179 | Document Preparation, Review, Approval, and Control |
| 66. | MCP-9247 | TWCP Graded Approach and Quality Level Assignment |
| 67. | MCP-9258 | TWCP Procurement |
| 68. | NT-AP-01 | TWCP Documents and Records Management |
| 69. | NT-AP-03 | ANL-W TWCP Data Generation Level Review |
| 70. | NT-AP-04 | QA Requirements Implementation |
| 71. | NT-AP-05 | TWCP Training Plan |
| 72. | NT-AP-08 | TWCP Data Input and QA Release for TRIPS |
| 73. | NT-AP-09 | TWCP VEE Functions and Process |
| 74. | PLN-182 | TRU Waste Characterization, Certification, and Transportation Quality Program Plan (QPP) |
| 75. | PLN-190 | Quality Assurance Project Plan (QAPjP) |
| 76. | PLN-508 | Quality Assurance Project Plan for Gas generation Testing Program |
| 77. | PLN-577 | INEEL TRUPACT II Authorized Methods for Payload (TRAMPAC) Control Compliance Plan |
| 78. | PLN-579 | Program Plan for Certification of INEEL Contact-Handled Stored Transuranic Waste |
| 79. | PLN-582 | TRIPS Software Configuration Management Plan |
| 80. | PLN-583 | TRIPS Software QA Plan |
| 81. | PLN-584 | TRIPS Software Verification and Validation Plan |
| 82. | PLN-585 | TRIPS Software Test Plan |
| 83. | PLN-587 | Training Implementation Plan for TWCP |
| 84. | PLN-600 | Analytical Laboratory Department QA Plan for the TWCP |
| 85. | QTP-002 | RTR System |
| 86. | QTP-004 | Passive-Active Neutron (PAN) Drum Assay System |
| 87. | QTP-011 | SWEPP Gamma-Ray Spectrometer Systems |
| 88. | QTP-020 | TRIPS Integrated Operational Test for the TRU Programs Characterization, Certification, and Payload Assembly Process |
| 89. | QTP-021 | RTR Digital Video Encoding Test |
| 90. | QTP-027 | Mobile RTR Trailer No. 1 |
| 91. | QTP-031 | SWEPP Waste Assay Gamma Spectrometer (WAGS) Absolute System |
| 92. | TPR-1572 | Operating the RTR System |
| 93. | TPR-1573 | INEEL Passive Active Neutron Assay System |
| 94. | TPR-1576 | SWEPP Weight Station |
| 95. | TPR-1584 | Drum Venting Operations |
| 96. | TPR-1588 | SWEPP Gamma-Ray Spectrometer System |
| 97. | TPR-1625 | Drum Dispositioning and Container Integrity |
| 98. | TPR-1632 | Transportation Certification Using TRIPS and WWIS |

| INEEL CERTIFIED DOCUMENTS & PROCEDURES LIST | | |
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| # | PROCEDURE NUMBER | TITLE |
| 99. | TPR-1642 | Needle Assembly |
| 100. | TPR-1645 | Gas Generation Testing in WMF-635 |
| 101. | TPR-1646 | Gas Generation Test System Mobile Gas Analysis System Operation |
| 102. | TPR-1648 | TRUPACT II Payload Assembly |
| 103. | TPR-1649 | TRUPACT II Loading |
| 104. | TPR-1652 | Helium Leak Detector |
| 105. | TPR-1654 | SWEPP Waste Assay Gamma Spectrometer (WAGS) System |
| 106. | TPR-1657 | Gas Generation Test System Chromatograph Three-Point Calibration |
| 107. | TPR-1665 | TRUPACT-II Payload Assembly Operation in WMF-635 |
| 108. | TPR-1666 | TRUPACT-II Loading Operation in WMF-635 |
| 109. | TPR-1719 | Calibration of SWEPP Radioassay Systems |
| 110. | TPR-1728 | Manual Drum Gas Sampling |
| 111. | TPR-1768 | SWEPP Waste Assay Gamma Spectrometer (WAGS) Absolute System |