



Department of Energy
 Carlsbad Field Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221
 February 9, 2001

ENTERED

Mr. Steve Zappe, Project Leader
 Hazardous Waste Bureau
 New Mexico Environment Department
 2044 - A Galisteo Street
 Santa Fe, New Mexico 87505



RE: Transmittal of the Final Audit Report for the Idaho National Engineering and Environmental Laboratory (A-01-02)

Dear Mr. Zappe:

This letter transmits the Final Audit Report for the Idaho National Engineering and Environmental Laboratory as required by Section II.C.2.c of the WIPP Hazardous Waste Facility Permit. The audit was conducted on December 5-7, 2000. A follow up visit to review indeterminate areas was completed on January 18, 2001.

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 fines and imprisonment for knowing violations.

If you have any questions concerning this audit report, please contact Mr. Sam Vega at (505) 234-7423.

Sincerely,

Inés Triay

Dr. Inés R. Triay
 Manager

Enclosure



In WIPP Library



Mr. Steve Zappe

-2-

cc: w/o enclosure

T. Harms, DOE-HQ

K. Watson, CBFO

S. Vega, CBFO

L. Chism, CBFO

H. Johnson, CBFO

J. Plum, CBFO

L. Fritz, DOE-ID

J. Kieling, NMED

J. Bearzi, NMED

S. Dinwiddie, NMED

H. Herrera, WTS

L. Steven, WTS

D. Murphy, BBWI

T. Monk, BBWI

cc: w/enclosure

M. Gerle, WTS (Operating Record)

C. Walker, Techlaw

**U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE**

FINAL AUDIT REPORT

OF THE

**IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL
LABORATORY (INEEL)**

IDAHO FALLS, IDAHO

AUDIT NUMBER A-01-02

DECEMBER 5-7, 2000

and

JANUARY 18, 2001

**FINAL AUDIT REPORT OF SOLID WASTE CHARACTERIZATION IN
ACCORDANCE WITH THE HAZARDOUS WASTE FACILITY PERMIT**



Prepared By: _____

Steven D. Calvert
Audit Team Leader

Date: _____

2/22/01

Approved By: _____

Samuel A. Vega
CBFO QA Manager

Date: _____

2/22/01

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-01-02 was conducted to evaluate the adequacy, implementation, and effectiveness of the Idaho National Engineering and Environmental Laboratory (INEEL) transuranic (TRU) waste characterization activities for solid waste relative to the requirements detailed in the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP).

The audit was conducted at the INEEL facilities in two phases: phase 1 during December 5-7, 2000, and phase 2 during January 18, 2001. The audit team concluded that the INEEL technical and quality assurance (QA) programs, as applicable to audited activities, met requirements contained in the HWFP. The audit team also concluded that the defined QA and technical processes for the audited activities were being implemented in accordance with the INEEL Quality Assurance Project Plan (QAPjP) and its implementing procedures. The audited processes were also found to be effective.

The audit team identified no conditions adverse to quality requiring the issuance of a CBFO Corrective Action Report (CAR). Four isolated deficiencies requiring only remedial corrective actions were Corrected During the Audit (CDA). Four Observations were identified, and three Recommendations are being offered for INEEL management consideration. The CARs and CDAs are described in section 6.0 and the Observations and Recommendations are discussed in section 7.0.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the adequacy, implementation, and effectiveness of the INEEL TRU waste characterization processes for retrievably stored solid waste relative to the requirements contained in the WIPP HWFP, attachments B through B6. Compliance was documented by completing the attachment B6 checklist for the applicable INEEL activities.

The following INEEL program elements were evaluated in accordance with the HWFP:

Quality

- Nonconformance/Corrective Action
- Personnel Qualification and Training
- Documents and Records
- Sample Control

Technical

Acceptable Knowledge (AK)
Solid Sampling
Total Volatile Organic Compounds
Total Semi-Volatile Organic Compounds
Total Metals Analysis
Data Generation Level Verification and Validation
Project Level Verification and Validation

The evaluation of INEEL TRU waste activities and documents was based on current revisions of the following documents:

Waste Isolation Pilot Plant Hazardous Waste Facility Permit, October 27, 1999

CAO Quality Assurance Program Document, CAO-94-1012, revision 3, November 1999

Quality Assurance Project Plan for the Transuranic Waste Characterization Program (QAPjP), PLN-190, revision 8

Program Plan for Certification of INEEL Contact-Handled Stored Transuranic Waste, PLN-579, revision 2

Plan for INEEL TRU Waste Characterization, Certification, and Transportation Quality Program, PLN-182, revision 6

Related INEEL technical and quality assurance implementing procedures

2.2 Purpose

Audit A-01-02 was conducted to assess whether INEEL's Summary Category Group S3000 retrievably stored waste characterization activities complied with the WIPP HWFP requirements.

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Samuel Vega	CBFO QA Manager
Steven Calvert	Audit Team Leader, CTAC
Pete Rodriguez	Auditor, CTAC
Earl Bradford	Auditor, CTAC
Wayne Ledford	Auditor, CTAC
Jim Schuetz	Auditor, CTAC
Dee Scott	Auditor, CTAC
Charles Riggs	Auditor, CTAC

Dick Blauvelt	Technical Specialist, CTAC
Patrick Kelly	Technical Specialist, CTAC
Dorothy Gill	Technical Specialist, CTAC
BJ Verret	Technical Specialist, CTAC
Randy Fitzgerald	Technical Specialist, CTAC
Trey Greenwood	Technical Specialist, CTAC

OBSERVERS

Tim Harms	DOE Headquarters
Steve Holmes	Observer, NMED
William Fetner	Observer, NMED
Connie Walker	Observer, NMED
Ben Walker	Observer, EEG
Brian English	Observer, State of Idaho
Rick Denning	Observer, State of Idaho

4.0 AUDIT PARTICIPANTS

INEEL individuals involved in the audit process are identified in attachment 1. A preaudit meeting for phase 1 was held at the Radioactive Waste Management Complex (RWMC) Conference Room, on December 5, 2000. A daily meeting was held with INEEL management and staff to discuss issues and potential deficiencies. The audit was concluded with a postaudit meeting for phase 1 held in RWMC Conference Room on December 7, 2000.

Phase 2 of the audit was conducted to verify completion of corrective actions resulting from phase 1 of the audit. Phase 2 started on January 18, 2001 with a kickoff meeting conducted at the EROB and concluded on January 18, 2001 with an exit briefing conducted at the same location.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy and Implementation

This audit was performed to assess INEEL's ability to characterize waste from Summary Category Group S3000 to the requirements specified in the WIPP Waste Analysis Plan (WAP). The characterization methods assessed were solid sampling (coring), visual examination (VE), total metals analysis, total volatile organic compounds analysis (VOCs), total semi volatile organic compounds analysis (SVOCs), and acceptable knowledge (AK). Data review, validation, and use of those results to perform data quality objective (DQO) reconciliation and prepare a Waste Stream Profile Form (WSPF) were assessed. The audit evaluated waste streams from Summary Category Group S3000.

The audit team concluded that the applicable INEEL TRU waste characterization activities, as described in the associated INEEL implementing procedures, satisfactorily meet the requirements contained in the HWFP. Details of audit activities, including specific objective evidence reviewed, are described below and in the attached B6 checklist. The B6 checklist identifies the INEEL program documents and procedures in which the WAP requirements are met. Attachment 3 contains examples of the objective evidence that was reviewed during the audit.

5.2 Technical Activities

Each technical area audited is discussed in detail in the following sections. The method used to select objective evidence is discussed, the objective evidence that was used to assess compliance with the WAP is cited briefly (and in detail on the checklist), and the result of that assessment are provided.

If a question could not be satisfactorily answered, an audit concern was identified. Concerns that were corrected during the audit (CDA) are discussed in section 6.2. No concerns requiring the issuance of a CAR were identified during the audit. A CAR allows CBFO to track INEEL's efforts to remediate the deficiency identified in the CAR. CARs are addressed in section 6.1. Each deficiency CDA is identified on the B6 checklist tables under the corresponding item number.

5.2.1 Table B6-1 WAP Checklist

The B6-1 WAP checklist addresses program requirements from an overall management perspective. It documents the verification that the waste characterization strategy as defined in the WAP is implemented by using controlled procedures. This audit was performed to assess INEEL's ability to characterize Summary Category Group S3000 solid waste streams. In particular, a retrievably stored solid waste stream (inorganic solidified sludge) was evaluated. Objective evidence to evaluate the implementation of the associated characterization activities was selected and reviewed. Batch reports, sampling records, and training documentation for TRU Waste Characterization Program (TWCP) personnel were included in the evaluation. The audit included direct observation of actual waste characterization activities (such as solid sampling and analysis). Each characterization process involves:

- Collecting raw data
- Collecting quality assurance/quality control (QA/QC) samples or information
- Reducing the data to a useable format, including a standard report
- Review of the report by the data generation facility and the site project office
- Comparing the data against Program DQOs
- Reporting the final waste characterization information to WIPP

The flow of data from the point of generation to inclusion in the WSPF for each characterization technique was reviewed to ensure that all applicable requirements

were captured in the site operating procedures. The material in this section is also addressed in more detail in following sections, which provide the specific procedures audited and the objective evidence reviewed.

During phase 1 of the audit, INEEL demonstrated compliance with the characterization requirements of the WAP through documentation and by performing the characterization activities. INEEL provided the following batch data report information:

WCS-000001 (core sampling)
WCV-010474 (visual examination)
WCV-022618 (visual examination)
ACL00003M (total metals)
ACL00003N (total VOCs)
ACL00003V (total VOCs)
ACL00003S (total SVOCs)

Copies of these batch reports are included in attachment 3.

The sampling batch report WCS-000001 for core sampling was found to be acceptable as was the analysis batch reports ACL00003M, ACL00003S, ACL00003N, and ACL00003V for solids analysis processes. The sampling process observed was acceptable.

AK and the auditable record were reviewed in detail for a Summary Category Group S3000 retrievably stored solid waste stream. The AK record was reviewed to demonstrate that the required information was present and correctly interpreted. The batch reports cited above were used to demonstrate confirmation of AK, to reconcile DQOs, and to prepare a draft WSPF (INW216.001). Completed WSPFs that had been submitted to CBFO were also reviewed (INW247.001 and INW276.003).

A draft WSPF (INW216.001) and the summarized characterization information related to it were reviewed to establish the objective evidence for reporting waste characterization information to WIPP. The form was completed using information from current characterization processes. INEEL was requested to prepare the draft WSPF so that the procedure could be audited (see attachment 3). An actual WSPF will be prepared and submitted to CBFO prior to any shipments as required. This form is merely an example developed to allow the audit team to assess the process used to prepare the form; actual WSPFs are reviewed and approved by the CBFO when the waste stream has been fully characterized and the site is approved to ship waste.

5.2.2 Table B6-2 Solids and Soils/Gravel Sampling Checklist

This audit was performed to assess INEEL's ability to characterize Summary Category Group S3000 retrievably stored solid waste streams.

The audit team examined the solids sampling capabilities for waste characterization performed at ANL-W and witnessed activities being performed in the coring process. Coring operations are being performed and documented as required by the established WAP requirements. The audit team witnessed the coring and sampling of drum 031573. Sample collection, storage at ANL-W, custody documentation and sample packaging for shipment to the analytical laboratory were reviewed. Review of the coring and sampling data indicate that the documentation is correct and contains the required information. The overall solids sampling procedures were determined to be adequate. The audit team determined the solid sampling process is satisfactorily implemented and effective.

The process for sample handling was evaluated at the Analytical Chemistry Laboratory (ACL) and at ANL-W. The evaluation established that handling of samples in these facilities was performed in accordance with the procedures. The samples are stored correctly after collection and receipt and are tracked as they move through the collection and analysis processes. It was concluded that the sample handling procedures are adequate and satisfactorily implemented and the process is effective. The chain-of-custody process at ACL was examined for samples coming from ANL-W to the laboratory facility. The overall chain-of-custody program and procedures were determined to be adequate, satisfactorily implemented and the process is effective.

The activities being implemented to comply with specific container selection, sampling, examination, and data analysis requirements for transuranic waste were reviewed. The sample design activity has been evaluated and found to be compliant during previous audits. The procedures that address these activities were determined to be adequate and satisfactorily implemented and the process is effective.

The audit team reviewed the process for total metals analysis. The activities were well executed and the personnel interviewed were knowledgeable, professional, and well trained. No concerns were identified for mercury determination. The matrix spiking solution expiration date, assigned by the laboratory, exceeded the annual requirement stated in procedure ACMM-2900. This situation was corrected and verified during the audit (a change to procedure ACMM-2900 was initiated, and an NCR was generated for the only WIPP data package affected, see CDA # 1). The procedure was determined to be adequate and the analytical process was satisfactorily implemented and effective.

No data has been generated in the laboratory in accordance with WAP requirements for PCBs. However, due to the lack of actual data for PCB analytical activities, PCB preparation and analysis could not be completely evaluated at the time of the audit. CBFO will not certify INEEL for PCB analysis until the process has been implemented and verified during a subsequent audit. The audit team examined the procedures and processes relating to volatile organic compound (VOC) analysis of solid samples. The audit included a review of laboratory notebooks and sample preparation. The audit witnessed steps of the analytical processes being performed and they were being executed in a professional and competent manner. One solids data package for VOC analyses was reviewed in depth and found to be accurate and complete. Procedures

used to control the processes were determined to be adequate when compared to the requirements of the WAP. The processes for analysis of VOCs were determined to be satisfactorily implemented and effective.

The audit team evaluated the procedures and processes for semi volatile organic compound (SVOC) analysis of solid samples. The audit team conducted interviews and observed the analyst conducting various steps in the processes for SVOC sample preparation and analysis. The solids data packages for SVOC analyses were reviewed in depth and found to be accurate and complete and in accordance with the requirements. Procedures used to control the processes were determined to be adequate when compared to the requirements of the WAP. The processes for analysis of SVOCs were determined to be satisfactorily implemented and effective.

5.2.3 Table B6-3 Acceptable Knowledge Checklist

This audit was performed to assess INEEL's ability to characterize Summary Category Group S3000 retrievably stored solid waste streams. Items on the AK checklist are intended to ensure that INEEL has an AK process in place to:

- Assemble those data into a coherent narrative detailing the waste generation and constituents
- Segregate the waste into like waste streams
- Provide Resource Conservation and Recovery Act (RCRA) characterization for those waste streams
- Confirm those characterizations using sampling and analysis
- Provide an auditable set of records to support the characterization

The following procedures relating to the AK process were evaluated:

MCP-2988, Confirmation, Resolution, and Reevaluation of Acceptable Knowledge Information

MCP-2989, Collection, Review, and Management of Acceptable Knowledge Documentation

MCP-2542, Preparation of Waste Stream Profile Forms

The AK summary documentation contained in the auditable record and container-specific information were reviewed. The audit was limited to a single solid waste stream (inorganic solidified sludge). Traceability of the AK documentation was accomplished by selecting a random sample of reference documents. The summary document and supporting documentation identify the waste stream and point of generation for the containers. Several of the references are selected to ensure they are available in the auditable record and to ascertain if the source documents support the characterization determination. These sources include such items as published reports, process flow diagrams, interviews with site personnel concerning use of

hazardous materials, and reports of previous waste characterization sampling and analysis efforts.

A reference document was discovered to be missing from the file. The file was located and was formally transmitted to the AK records file (see CDA # 2). Procedure MCP-2988 did not establish a clear trail from the waste stream summary documents and the Engineering Design Files (EDF). Procedure MCP-2988 was revised to establish a link to the EDFs (see CDA # 3).

The AK process was evaluated by reviewing the AK summary for metal solid waste stream in INEL-96-0280, titled *Acceptable Knowledge Document for INEEL Stored Transuranic Waste – Rocky Flats Plant Waste*. The auditable record was searched to ensure that the cited references were available and that the reviewer could come to the same hazardous waste determination as presented in the AK summary. Information from the inorganic solidified sludge waste stream was selected and the AK information for its characterization was traced from the summary through the AK source document reviews to the original records. The information for containers IDRF741202121 and IDRF741201882 (inorganic solidified sludge) was traced to verify the characterization as determined by the AK. The information was available in the record files and supported the AK determination.

The AK process includes provisions to identify information that conflicts with what is expected in a waste stream (confirmation processes) and a method by which these conflicts can be resolved (AK-00-019, AK-00-138, AK-00-159, and AK-00-160 resolution checklists). In one case a resolution checklist was not completed as required by the procedure. The resolution checklist was completed (AK-00-213) and added to the AK records file (see CDA # 4). The discrepancy resolution procedure is MCP-2988, *Confirmation, Resolution, and Reevaluation of Acceptable Knowledge Information*.

The AK checklist was completed, in part, by reviewing document INEL-96-0280. Additional documentation supporting the AK summary documents and AK source document review summaries are contained in attachment 3 to support the entries in table B6-4.

INEEL draft WSPF INW216.001 and the information related to it were reviewed to establish the objective evidence for reporting characterization information to WIPP. Procedure MCP-2542, *Preparation of Waste Stream Profile Forms*, was evaluated during the audit. Completed WSPFs INW276.003 and INW247.001 were reviewed to verify that the process is being satisfactorily implemented.

The procedures cited above, which are used by the site to assemble, evaluate, document, and reconcile sampling and analysis results, were reviewed for adequacy and their implementation was assessed during the audit. The AK requirements include procedure content and specific requirements for retrievably stored waste and ensure that the AK summary includes all mandatory information required by the WAP.

Reports and records used to document the basis of INEEL AK were evaluated; copies of pages used for objective evidence are in attachment 3 of this report. The reports were satisfactory and the records properly maintained as QA records. The list of AK documentation reviewed is included in attachment 3.

INEEL was found to be satisfactorily using testing, sampling, and analysis data to confirm the waste characterization designations made using AK. INEEL has an adequate process in place to resolve discrepancies and document changes. Waste characterization designations were confirmed by reviewing the batch reports documenting the characterization activities. If the characterization results do not support the AK waste stream description, a non-conformance report (NCR) is prepared.

This audit verified that INEEL is satisfactorily implementing the AK process to delineate, characterize, and confirm the characterization of waste for disposal in accordance with WIPP WAP requirements (see recommendations 1, 2, & 3).

5.2.4 Table B6-4 Headspace Gas Checklist

This audit was performed to assess INEEL's ability to characterize Summary Category Group S3000 solid waste streams. Headspace gas sampling and analysis operations at INEEL were observed for Summary Category Group S5000 during audit A-00-06. The results of audit A-00-06 for headspace gas sampling and analysis have been approved by NMED. The procedures and processes for headspace gas sampling and analysis are the same for Summary Category Groups S3000 and S5000.

5.2.5 B6-5 Radiography Checklist

This audit was performed to assess INEEL's ability to characterize Summary Category Group S3000 solid waste streams. Radiography operations at INEEL were observed for Summary Category Group S5000 during audit A-00-06. The results of audit A-00-06 for radiography have been approved by NMED. The procedures and processes for radiography are the same for Summary Category Groups S3000 and S5000.

5.2.6 B6-6 VE Checklist

This audit was performed to assess INEEL's ability to characterize Summary Category Group S3000 retrievably stored solid waste streams. Visual examination (VE) includes both the QC check performed on radiography results and observations made during initial waste packaging. INEEL was audited to determine the effectiveness of VE as the QC check on RTR. VE as a QC check on radiography is recorded on audio/video tape and documented on standard forms. The VE process as a QC check on RTR at INEEL has been previously approved by NMED (audit A-00-06), during this audit VE as a QC check on RTR as applied to S3000 waste was evaluated.

VE operations and records were reviewed at ANL-W. The audit team observed VE activities being performed by the ANL-W technical staff. The VE activities observed during this audit were of a drum of sludge that was subsequently core sampled. The results of VE activities is documented on batch reports. VE batch reports for S3000 waste were reviewed and determined to be accurate and complete. The visual examination process was being audio/video taped as required. The VE technicians were well trained and competent and completed the activities in a professional manner. The audit team concluded that the procedures are adequate. The team also concluded that the visual examination process was satisfactorily implemented and effective (see Observations 2 and 4).

INEEL VE activities were evaluated by observing actual examinations, reviewing videotapes, and evaluation of VE batch reports. The batch reports reviewed during this audit were WCV-010474 and WCV-022618. These batch reports are included in attachment 3.

The VE procedures are MCP-2546, *Visual Examination Process*; and HFEF-OI-6890, *TWCP Visual Examination*. The procedures were found to be adequate in meeting the WAP requirements. The random selection procedure, EDF-RWMC-363, *SWEPP Certified Waste Sampling Program*, which is used to select drums to confirm radiography results, was audited. The audit team concluded that the process was satisfactorily implemented and effective.

INEEL continues to satisfactorily implement the WIPP WAP VE requirements.

6.0 SUMMARY OF DEFICIENCIES

6.1 Corrective Action Reports

During the audit, the audit team may identify Conditions Adverse to Quality (CAQ) and document that condition(s) on Corrective Action Reports (CAR).

Condition adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, compliance demonstration, or the effective implementation of the Quality Assurance (QA) program.

No concerns requiring issuance of a CAR were identified during phases 1 and 2 of the audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify Conditions Adverse to Quality (CAQ). The audit team members and the Audit Team Leader (ATL) evaluates the CAQs to determine if they are significant using the following definitions. Once a determination is made that the CAQ is not significant, the audit team member in conjunction with the ATL determines if the CAQ is a isolated case requiring only remedial action and therefore can be Corrected During the Audit (CDA). Upon determination that the CAQ is isolated, the audit team member in conjunction with the ATL evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected the ATL categorizes the condition as a CDA.

Condition adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Corrected During the Audit (CDA) – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and correction of the deficiency can be verified prior to the end of the audit. Examples include: One or two minor changes required to correct a procedure (isolated). One or two forms not signed or not dated (isolated). One or two individuals have not completed a reading assignment.

Four WAP-related CDAs were identified and corrected during phase 1 of the audit. No additional CDAs resulted from phase 2. Additional CDA information is contained in attachment 2.

1. Spike solutions are required by procedure to be prepared on an annual basis. The spike solutions examined during the audit were identified as being on a two year preparation cycle. The laboratory issued an NCR that identified the inconsistency between the procedure and process. The spike standard was re-analyzed and found to be within acceptable limits. The procedure was revised to allow the spike standard to be on two year frequency.
2. An Acceptable Knowledge (AK) record listed as a reference in the AK Summary Document (INEL-96/0280) for solidified sludge was missing from the records file. The records was obtained and placed the AK records file.
3. Procedure MCP-2988 does not establish a clear audit trail from the used forms and waste stream summary documents to the Engineering Design Files (805, 922, and 803). Clarification of the process and establishment of an auditable trail was included in Revision 13 of the procedure.
4. A discrepancy Resolution Checklist for a waste stream was not completed. The appropriate changes had been made to the Waste Stream Summary sheet. The

appropriate INEEL Acceptable Knowledge Resolution Checklist (AK-00-213) was completed and added to the file.

7.0 SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

During the audit, the audit team may identify conditions, which warrant input by the audit team to the audited organization regarding potential problems or suggestions for improvement. The audit team members in conjunction with the Audit Team Leader (ATL) evaluates these conditions and classifies them as Observations or Recommendations using the following definitions. Once a determination is made, the audit team member in conjunction with the ATL categorizes the conditions appropriately.

Observation – A condition that, if not controlled, could result in a CAQ

Recommendations – Suggestions that are directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

7.1 Observations

Four Observations document marginally acceptable conditions that, if not controlled, might later escalate into a deficiency. The following is the WAP-related Observation identified during the audit:

1. The AK confirmation and reevaluation process has not been completed for the S3000 Summary Category Group. These activities need to be completed before a determination of implementation and effectiveness can be made on the AK process.
2. For batch report WCS-00001, the person who generated the original data (Waste Characterization Operator) also performed the technical supervisory review. The technical supervisor reviews should be performed by someone other than the operator that performed the work.
3. During the completion of the examination checklist elements dealing with generation of new waste stream profile forms it was discovered that when discrepancies are noted between AK and analysis, a unique AK Summary (Waste Stream Summary Sheet, WSSS) was not generated for the new waste stream. Instead, the existing WSSS was updated to include information for the new waste stream, with the intent being that the updated WSSS would apply to both the previous and new waste streams. AK summaries with unique numbers are required for each WSPF.
4. The list of randomly selected containers for visual examination should be forwarded to ANL-W prior to performing visual examination activities (the selection had been completed as required, but not formally documented). This would establish which containers need to be opened prior to the start of the visual examination process.

7.2 Recommendations

The following are the WAP-related Recommendations provided to INEEL management during the audit:

1. The accuracy report should be clarified by adding a revision number for the information obtained from the EDF-803 data so that the source of the comparison data can be determined. Alternatively the column containing this information could be deleted from the document since it does not directly factor into the accuracy calculation.
2. Specific page numbers for references should be included in the next revision to the AK Summary Document (INEL-98/0280).
3. INEL-98/0280, Appendix B includes waste volumes, however the information is unreferenced and cannot be easily traced. The document should be updated to include the appropriate reference.

8.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Corrective Action Supporting Documentation
- Attachment 3: Objective Evidence
- Attachment 4: Audited INEEL Implementing Procedures

A-01-02

ATTACHMENT

PERSONNEL CONTACTED DURING THE AUDIT A-01-02

PERSONNEL CONTACTED				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Adams, Bruce	Systems Engineer, ANL-W		X	
Allen, Rodney	TCO, BBWI			X
Anderson, Molly	SQAO Designee, BBWI	X	X	X
Anselmo, Rick	Sample Custodian, ALD		X	
Arbon, Rod	Site Project Manager	X	X	
Baxter, Don	Project Coordinator, BBWI	X		X
Bishoff, Jim	Operations, BBWI	X		
Blackwood, Larry	Scientist, BBWI	X	X	
Blattner, Delisa	Document Control, BBWI	X	X	X
Bradford, Rhett	Project Engineer, ANL-W		X	
Bright, David	Operations Manager, BBWI	X		
Broers, Galyn	CAR Coordinator, BBWI	X		X
Brown, Dennis	DB Associates	X	X	
Bryngelson, Dwayne	Project Engineer, ANL-W		X	
Coburn, Klayne	Group Leader, ANL-W		X	
Colborn, Julie	Technician, ANL-W		X	
Connolly, Joan	SPO Support, North Wind	X		
Contreras, Paul	DOE-ID, Facility Engineer	X		X
DeCoria, Galyn	Scientist, ALD		X	
Denning, Rick	State of Idaho		X	
Dunhour, Fred	FQAO, ANL-W	X	X	X

PERSONNEL CONTACTED				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Einerson, Jeff	Statistician, BBWI		X	
Emanuelson, Kay	QA Supervisor, BBWI	X		
English, Brian	Idaho, DEQ			X
Fife, Cindy	Facility QA, BBWI	X		X
Flores, Arturo	Document Control, BBWI			X
Ford, Bryant	3100 Project Engineer	X		X
Framer, Carl	Training, BBWI			X
Friedrich, Gloria	Secretary, ALD		X	
Fritz, Lori	DOE-ID	X	X	X
Frost, Lisa	SDVO, BBWI	X	X	X
Frye, Jimmy	Technician, ANL-W		X	
Gies, Carol	Scientist, ALD		X	
Grigg, Clayne	Technical Lead, ALD		X	
Guerrier, Jack	Engineer, GTI	X	X	
Haily, Sheila	AK Expert/SDVO, BBWI	X	X	X
Hand, Rodney	Manager, Analytical Labs.	X	X	X
Harker, Yale	Scientist, BBWI	X	X	
Hartley, Diane	TRIPS, BBWI		X	
Hernandez, Nicole	DOE-ID Facility Rep	X		
Hobbes, Jeff	Production Manager, BBWI	X		
Holzmer, Mark	DOE-CH, Team Leader		X	
Houghton, Tracy	Sample Custodian, ALD		X	

PERSONNEL CONTACTED				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Johnsen, Tom	Document Control, BBWI	X		X
Jeter, Jeff	Scientist, ALD		X	
Kahn, Dave	Technician, ANL-W		X	
Knox, Greg	QA, BBWI		X	X
Krivanek, Kenneth	Engineer, GTI			X
LaFreniere, Mike	DOE-ID	X	X	X
Lang, Jeff	Technical Leader, ALD		X	
Lee, Scott	ANL-W Project Manager	X	X	X
Lent, Dave	Training Coordinator, BBWI		X	
Lundholm, Duane	Specialist, ALD		X	
Magnan, James	Systems Engineer, ANL-W		X	
McBath, Bill	ESH&Q Manager, BBWI	X		
Mclsaac, C. V.	Advisory Scientist, BBWI	X	X	
Meachum, Teresa	Scientist, BBWI	X	X	
Menkhaus, Dan	Systems Engineer, BBWI	X	X	X
Monk, Thomas	Site Project Manager, BBWI	X	X	X
Morgan, Sabrina	Scientist, ALD		X	
Murphy, Dennis	QA Manager, BBWI	X	X	X
Neal, Cindy	Scientist, ALD		X	
Nelson, Sherrie	Technical Writer, BBWI			X
Nicklas, John	Observer, SAIC/BNFL	X	X	
Park, Gregg	Technical Lead, ALD		X	

PERSONNEL CONTACTED				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Peterson, Barbara	TRIPS Project Manager,	X		X
Ploger, Scott	Engineer, GTI			X
Pound, Don	Transportation Certification Officer, BBWI		X	X
Preston, Tim	Site Quality Assurance Officer, BBWI	X	X	X
Reidle, Martha	Training Administrator, BBWI		X	
Rogers, N. Kim	Department Manager, BBWI	X	X	
Sailer, Shelly	ALD QA Officer, BBWI	X	X	X
Sherick, Mark	Characterization PM, BBWI	X		
Simmons, Craig	Operator, BBWI		X	
Smythe, Faye	Scientist, ALD		X	
Stump, Robert	DOE-ID, Program Manager	X		
Sygitowicz, Lee	Program Manager, BBWI			X
Taylor, Spence	Technical Specialist, ALD		X	
Thomas, Mariam	Scientist, ALD		X	
Tolman, Betty	AKE, North Wind		X	
Trejo, Larry	Scientist, ALD		X	
Troescher, Patrick	QA Officer, BBWI		X	X
Twedell, Gary	Scientist, BBWI	X	X	
Walker, Reed	Operator, BBWI		X	
Wells, Jerry	DOE-ID	X	X	X
Wells, Richard	Chemist, ALD		X	

PERSONNEL CONTACTED				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Wheeler, Darren	Technician, ANL-W		X	
Williams, Jennifer	Technical Specialist, BBWI		X	

Personnel Contacted During the Audit by Area

Nonconformance/Corrective Action	T. Preston
Personnel Qualification and Training	M. Reidle F. Dunhour D. Lent
Documents and Records	D. Blattner B. Lowman R. David
Sample Control	B. Adams D. Bryngelson K. Coburn C. Crowder T. Houghton S. Lee J. Magnan J. Nicklas S. Sailer
Acceptable Knowledge	S. Haily D. Hartley D. Pound B. Tolman
Solid Sampling (Coring)	B. Adams D. Bryngelson K. Coburn S. Lee J. Magnan J. Nicklas
Total Metals Analysis	R. Anselmo C. Gies C. Grigg R. Hand J. Lang D. Lundholm s. Morgan C. Neal G. Park S. Sailer R. Wells
Total Volatile Organic Compound Analysis	G. DeCoria J. Jeter C. Neal S. Sailer F. Smythe S. Taylor M. Thomas P. Troescher
Total Semi Volatile Organic Compound Analysis	G. DeCoria J. Jeter C. Neal S. Sailer F. Smythe S. Taylor M. Thomas P. Troescher
Visual Examination	R. Bradford D. Bryngelson K. Coburn J. Colborn J. Frye S. Haily D. Kahn D. Wheeler
Verification and Validation	M. Anderson L. Frost S. Haily

INEEL PROCEDURES AUDITED IN A-01-02		
NUMBER	PROCEDURE NUMBER	TITLE
1.	ACMM-2900	Determination of Trace Elements by ICP Atomic Emissions Spectrometry
2.	ACMM-7802	Determination of Mercury by Cold Vapor Fluorescence Spectrophotometry
3.	ACMM-8909	Microwave Assisted Digestion of Homogeneous Solids
4.	ACMM-9080	Determination of PCBs by Gas Chromatography
5.	ACMM-9260	VOCs by Gas Chromatography/Mass Spectrometry
6.	ACMM-9270	SVOCs by Gas Chromatography/Mass Spectrometry
7.	ACMM-9441	Determination of Nonhalogenated Volatile Organics by Gas Chromatography
8.	ACMM-9500	Sample Preparation for SVOCs and PCBs
9.	EDF-363	SWEPP Certified Waste Sampling Plan
10.	EDF-909	TRU Waste Sampling Plan for INEEL
11.	HFEF-OI-6810	TRIPS Container Management
12.	HFEF-OI-6862	TWCP Sample Storage and Shipment
13.	HFEF-OI-6890	TWCP Visual Examination
14.	HFEF-OI-6910	TWCP Core Drilling Operations
15.	HFEF-OI-6921	TWCP Solid Sample Preparation
16.	MCP-2002	Analytical Chain of Custody
17.	MCP-2004	Sample Management in the Analytical Chemistry Laboratory
18.	MCP-2008	Analytical Data Recording, Review and Reporting
19.	MCP-2011	Analytical Logbooks
20.	MCP-2527	DQO Reconciliation at SPO Level
21.	MCP-2529	Drum Data Review by the SQAQ
22.	MCP-2530	SQAQ Drum Data Review Checklists
23.	MCP-2536	Project Level Data Verification by the SPM
24.	MCP-2542	Preparation of Waste Profile Forms
25.	MCP-2546	Visual Examination Process
26.	MCP-2988	Confirmation, Resolution, and Reevaluation of Acceptable Knowledge Information
27.	MCP-2989	Collection, Review, and Management of Acceptable Knowledge Documentation
28.	MCP-2995	Project Level Electronic Data V and V By the SDVO
29.	MCP-2996	Electronic Data Review By the SDVO
30.	MCP-2997	SQAQ Electronic Data Review Checklists
31.	NT-AP-01	Documents and Records Management
32.	NT-AP-03	ANL-W TWCP Data Generation Level Review
33.	NT-AP-04	QA Requirements Implementation
34.	NT-AP-05	TWP Training Plan
35.	NT-AP-08	TWCP Data Input and QA Release for TRIPS
36.	PLN-182	INEEL TRU Waste Characterization, Certification, and Transportation Quality Program (QPP)
37.	PLN-190	Quality Assurance Project Plan (QAPJP)
38.	PLN-579	Program Plan for Certification of INEEL Contact-Handled Stored Transuranic Waste (Certification Plan)
39.	PLN-587	Training Implementation Plan for TWCP
40.	PLN-600	Analytical Laboratory Department QA Plan for the TWCP