

CCP-TP-500

Revision 10

CCP

Remote-Handled Waste Visual Examination

EFFECTIVE DATE: 12/29/2010

Larry Porter

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	02/15/2006	Initial issue.
1	04/27/2006	Revised in response to CBFO comments.
2	06/19/2006	Revised to address concerns raised during the Idaho National Laboratory (INL) Remote-Handled (RH) Audit A-06-21.
3	10/12/2006	Revised to resolve issue identified in EPA Concern ANL-CCP-RH-VE-06-001CR.
4	11/16/2006	Revised to incorporate Visual Examination Expert (VEE) decisions and signature.
5	06/01/2007	Revised to incorporate February 27, 2007, modification of the Waste Isolation Pilot Plant Hazardous Waste Facility Permit (HWFP), Attachment B-B6, Waste Analysis Plan (WAP).
6	10/25/2007	Revised in response to Central Characterization Project (CCP) Corrective Action Report (CAR) CAR-RHBCL-00002-07, to clarify questions 11 and 12 on Attachment 2, Visual Examination Independent Technical Review Checklist.
7	02/27/2008	Revised to address Carlsbad Field Office (CBFO) Corrective Action Report (CAR) 08-005.
8	07/24/2008	Clarification changes for ease of operations.
9	06/30/2010	Revised to make changes for a two shift operation and two different sets of qualified operators to be able to work on the same Remote-Handled (RH)-Visual Examination (VE). Added Table 1, Prohibited Items List, and updated language to reflect the permit modification.
10	12/29/2010	Revised to incorporate Permit Modification Independent Technical Review (ITR) language.

TABLE OF CONTENTS

1.0 PURPOSE..... 4
1.1 Scope..... 4

2.0 REQUIREMENTS..... 6
2.1 References 6
2.2 Training Requirements..... 6
2.3 Equipment List..... 6
2.4 Precautions and Limitations..... 7

3.0 RESPONSIBILITIES..... 8
3.1 Visual Examination Operator (VEO) 8
3.2 Independent Technical Reviewer (ITR)..... 8
3.3 Visual Examination Expert (VEE) 8
3.4 Site Project Manager (SPM) 8
3.5 Facility Records Custodian/Records Custodian..... 9

4.0 PROCEDURE..... 10
4.1 VE for Single Packages (small packages or final containers)..... 10
4.2 VE for Final Packaging 14
4.3 Batch Data Report Preparation..... 17
4.4 Site Project Manager (SPM) Review 19

5.0 RECORDS..... 20

LIST OF TABLES

Table 1. Prohibited Items List..... 21
Table 2. Waste Material Parameters 22

LIST OF ATTACHMENTS

Attachment 1 – Visual Examination Data Form 23
Attachment 2 – Visual Examination Independent Technical Reviewer Checklist 25
Attachment 3 – Visual Examination Site Project Manager Checklist 26
Attachment 4 – Visual Examination Batch Data Report Cover Sheet 27
Attachment 5 – Visual Examination Batch Data Report Table of Contents 28
Attachment 6 – Waste Package Data Sheet (Example)..... 29

1.0 PURPOSE

This procedure establishes how to perform the Visual Examination (VE) for remote-handled (RH) transuranic (TRU) waste. This procedure also describes how to prepare and review batch data reports (BDRs) generated by VE.

This procedure provides the actions for collection of VE data and information required by CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*; CCP-PO-002, *CCP Transuranic Waste Certification Plan*; and DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)*.

1.1 Scope

VE verifies the physical waste form, confirms the Waste Stream Description and Waste Matrix Codes provided by Acceptable Knowledge (AK), and confirms that no prohibited items are present. VE is performed by two qualified operators, which is documented on the attachments to this procedure.

VE cannot identify prohibited items imbedded in forms, such as soils and solids, when the material is not removed from the characterized container.

VE may be performed on S3000 or S4000 when the material is not removed from the characterized container if CBFO approves the method for the specific waste form, typically from a surveillance.

VE may be performed in two phases. In the first phase, VE is performed by two qualified operators at the point of generation where the waste is visually inspected, identified, and placed into small containers. At this point (after waste has been placed in small containers), the waste may no longer be visible in its packaging. The packaging could be the small containers that will eventually be packaged into a larger container or a final container. In the second phase, VE is performed when small packages are placed in a larger container or the final container, documented, and then closed rendering VE of the waste no longer possible.

In addition to being used to perform VE at the time waste is actually being placed into the waste container, this procedure may also be used to perform VE of video media of waste being placed into waste containers. In the case of VE being performed for video tapes of waste contents, the VE operators are not in direct control of the waste examination and packaging process. Consequently, the video recordings must be adequate and complete to identify waste materials and verify the absence

of prohibited items as required in the execution of this procedure.
Attachment 1, Visual Examination Data Form, for the individual containers
is completed based on the review of the video media.

All site-specific requirements for health, safety, and operations in the work
place will be addressed in a site-specific operating procedure.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- *Safety Analysis Report for the RH-TRU 72-B Waste Shipping Package, Rev. 3, November 2002, U.S. Department of Energy Carlsbad Field Office*
- *Remote-Handled Transuranic Waste Authorized Methods for Payload Control*
- DOE/WIPP 90-045, *RH-TRU Waste Content Codes*

Referenced Documents

- DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan*
- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-QP-002, *CCP Training and Qualification Plan*
- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
- CCP-QP-008, *CCP Records Management*

2.2 Training Requirements

- 2.2.1 Personnel performing this procedure will be trained and qualified in accordance with CCP-QP-002, *CCP Training and Qualification Plan*, prior to performing this procedure.

2.3 Equipment List

- 2.3.1 None.

2.4 Precautions and Limitations

2.4.1 Facility Requirements

- [A] This procedure augments, but DOES **NOT** supersede, applicable requirements of the facilities in which the activities are conducted.
- [B] This procedure DOES **NOT** address radiological protection requirements. All activities described SHALL be conducted in accordance with work plans, procedures, or other process controls generated by the facility where the work is performed.
- [C] Personnel will have read and understand the applicable health and safety plan prior to performing work.

2.4.2 Conditions Adverse to Quality

- [A] If a condition adverse to quality is identified, the individual(s) identifying the condition SHALL initiate a nonconformance report (NCR) in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*.

3.0 RESPONSIBILITIES

3.1 Visual Examination Operator (VEO)

3.1.1 Performs the VE.

3.1.2 Assembles the BDR.

3.1.3 Completes Attachment 1(s).

3.1.4 Paginates the BDR.

3.1.5 Completes Attachment 4, Visual Examination Batch Data Report Cover Sheet.

3.1.6 Completes Attachment 5, Visual Examination Batch Data Report Table of Contents.

NOTE

The Independent Technical Reviewer (ITR) will be someone, other than the visual examination operator (VEO), who is qualified to have performed the work. ITRs shall not be involved in the generation or recording of the data.

3.2 Independent Technical Reviewer (ITR)

3.2.1 Reviews the BDR.

3.2.2 Completes Attachment 2(s), Visual Examination Independent Technical Reviewer Checklist.

3.3 Visual Examination Expert (VEE)

3.3.1 Responsible for overall direction and implementation of the VE at that facility.

3.4 Site Project Manager (SPM)

3.4.1 Reviews and approves the BDR.

3.4.2 Completes Attachment 3, Visual Examination Site Project Manager Checklist.

3.5 Facility Records Custodian/Records Custodian

- 3.5.1 Receives, processes, and transmits all records generated by this procedure in accordance with CCP-QP-008, *CCP Records Management*.

4.0 PROCEDURE

NOTE

A separate Attachment 1 will be used for each small container or package used to contain waste, **AND** an Attachment 1 will be used when combining several smaller packages into a larger container.

A Testing Batch includes all data pertaining to VE for up to 20 containers without regard to waste matrix.

A separate Attachment 1 will be used if the original operators that started the VE could not complete the container (e.g., end of the shift), **AND** two different qualified operators had to resume or finish VE of the container.

Two VEOs, who are equally trained in accordance with CCP-QP-002, will confirm the contents of the waste whether video recording is used or not used.

VEO

4.1 VE for Single Packages (small packages or final containers)

4.1.1 Preparations

[A] Record the following information on Attachment 1:

[A.1] Site Identification (ID) and Location of Packaging Activity

[A.2] Examination Date

[A.3] Batch Number if known, otherwise mark as N/A

[A.4] Procedure and Revision Number

[B] Prepare the recording equipment as follows (optional):

[B.1] **IF** recording equipment is to be used, **THEN** operate the recording equipment in accordance with site procedures.

[B.2] Verify the recording media is labeled with the container number and date, **AND** annotate the video number on Attachment 1.

- [B.3] To verify the recording equipment is operating satisfactorily, record a short segment, **AND** review segment for clarity of image and audio, if applicable.
- [B.4] Check SAT (Satisfactory), UNSAT (Unsatisfactory), or N/A on Attachment 1 to record the result of the Recording Equipment Check.

NOTE

If using video/audio media, record the waste packaging event for the container such that the waste placed into the containers are recorded in sufficient detail that a trained (VEO) can determine what the waste is and its associated waste material parameter.

- [B.5] **IF** recording the VE,
THEN enter the Recording Start time on Attachment 1, **AND** begin recording.

4.1.2 Visual Examination (VE)

- [A] **IF** a single container will be used for all of the waste to be packaged,
THEN check the Initial Container field N/A, **AND** use the Final Container fields to record steps 4.1.2[B.1] through 4.1.2[J.2].
- [B] **IF** the waste will be packaged in small containers and later combined in a final container,
THEN check the Final Container field N/A, **AND** record the following in the Initial Container fields on a separate Attachment 1 for each small container:

NOTE

The Container or Package ID Number is user defined (must be unique to the package or container) but shall be such that the small containers in a final container can be distinguished from each other.

- [B.1] Container or Package ID Number
- [B.2] Container Type (e.g., less than 4-liter plastic bottle, plastic bag, filtered plastic bag, unsealed 5-gallon pail, 55-gallon drum)
- [B.3] Waste Matrix Code as identified from AK
- [B.4] Waste Stream as listed in the AK Summary Report

- [C] **IF** combining smaller containers into a larger container,
THEN GO TO Section 4.2.

NOTE

The description of the material to be placed in the package shall be sufficiently detailed to allow a reviewer to evaluate the Waste Material Parameters (e.g., crescent wrench Iron-based Metals/Alloys [IM]). The material parameters are listed in Table 2, Waste Material Parameters.

- [D] Examine the waste, **AND** record the description of the material to be placed in the package in the Waste Description field on Attachment 1.
- [E] Ensure the waste is placed into the package.
- [F] **IF** VE of the container can **NOT** be completed by the original qualified operators that started the waste container for any reason,
THEN STOP and notify the VE Expert.
- [G] Complete comment section of on Attachment 1, initial and date comments. New qualified operators **SHALL** initial and date comments for acceptance of waste previously placed into the waste container.
- [H] **IF** different qualified operators resume or complete the VE the operators will start a separate Attachment 1 at step 4.1.2[D],
THEN complete Attachment 1 per CCP-TP-500, *CCP Remote-Handled Waste Visual Examination*.
- [I] **WHEN** the waste package is full,
OR the bag has met the packaging limit,
THEN perform the following and document on Attachment 1:
- [I.1] **IF** recording,
THEN STOP the recording device, **AND** enter the Recording Stop time.
- [I.2] **IF** packaging waste in smaller containers that will be combined into a larger container,
THEN GO TO step 4.1.2[I.6]
- [I.3] Check Y (Yes) or N (No) to record use of Rigid Liner and enter type (i.e., rigid liner thickness).

- [I.4] Check Y or N to record use of Rigid Liner Lid.
- [I.5] **IF** liner lid is used,
THEN record hole size in Rigid Liner Lid.

NOTE

The fill percent of the container is based on the highest level of the bulk of the waste. Items (e.g., pipe, plastic bags) that protrude above the bulk of the waste are **NOT** to be included in the fill percent determination. The fill percent is to be recorded in increments (e.g., 0-25 percent, 26-66 percent, 67-90 percent, or 91-100 percent).

- [I.6] Estimate, **AND** record the fill percent.
- [I.7] Ensure the bag liner is closed by either VE or AK record, if applicable.
- [I.8] Enter the number of Layers of Confinement for the package.
- [I.9] Enter the Closure Method(s) for the individual Layers of Confinement (use the Comments field on Attachment 1 if additional room is needed).
- [I.10] Ensure the lid of the waste container is installed in accordance with Host site procedures, if applicable.

NOTE

The primary container contents are defined as Concrete (sludge waste), Steel (ferrous and non-ferrous metal), and Organic Material (material that is not Concrete or Steel).

- [I.11] Determine the primary container contents, **AND** check one on Attachment 1.
- [I.12] **IF** the waste stream is S3000 **OR** S4000 waste that also contains debris,
THEN visually estimate the total weight of debris in the container of waste, **AND** record the debris weight in the Comments field of Attachment 1.
- [I.13] Answer the Prohibited Item/RH 72B Criteria questions on Attachment 1.

- [I.14] Determine amount of organic waste in 10 percent increments by volume and record in Comments field.

NOTE

Packaging material applies to the final container only.

- [J] Certify the contents of the package by performing the following:

VEO 1

- [J.1] Print name, sign, **AND** date Attachment 1 to annotate that the VE has been completed.

VEO 2

- [J.2] Print name, sign, **AND** date Attachment 1 to annotate that the VE has been completed.

VEO

- [K] Ensure the waste package is stored with reasonable protection from tampering.

4.2 VE for Final Packaging

NOTE

VE for Final Packaging applies when waste package(s) are to be placed into a larger container. For packages VE'd by tape review, the applicable steps in Section 4.2 are completed using AK information.

VEO

4.2.1 Prepare packages for loading as follows:

- [A] Identify the packages to be placed in the larger container, **AND** obtain the Attachment 1 for those containers.
- [B] Ensure all of the Attachment 1s show that the waste belongs to the same waste stream, there are NO prohibited items present, **AND** there are NO NCRs open that would require additional handling of the waste.

4.2.2 Verify each Package ID Number against the Attachment 1 prior to loading into the larger container.

- 4.2.3 For each package to be loaded into the larger container, perform the following:
- [A] Record the Package ID Number(s) in the Waste Description field on Attachment 1.
 - [B] Ensure the package is placed into the larger container.
 - [C] Repeat steps 4.2.3[A] and 4.2.3[B] for each package to be loaded.
 - [D] **IF** waste container can NOT be completed by the original qualified Operators that started the waste container for any reason,
THEN STOP AND Notify the VE Expert.
 - [E] Complete comment section of Attachment 1, initial and date comments. New qualified operators **SHALL** initial and date comments for acceptance of waste previously placed into the waste container.
 - [F] **IF** different qualified operators resume or complete the VE,
THEN the operators will start with a separate Attachment 1 at step 4.1.2[D] and complete Attachment 1 per CCP-TP-500.
- 4.2.4 **WHEN** the waste container is FULL,
OR the waste container has met the packaging limit as defined in the AK Summary Report,
THEN perform the following:
- [A] **IF** recording,
THEN STOP the recording device,
AND enter the Recording Stop time on Attachment 1.
 - [B] Check Y or N to record use of Rigid Liner, **AND** enter type.
 - [C] Check Y or N to record use of Rigid Liner Lid.
 - [D] **IF** liner lid is used,
THEN record hole size in Rigid Liner Lid.

NOTE

The fill percent of the container is based on the highest level of the bulk of the waste. Items (e.g., pipe, plastic bags) that protrude above the bulk of the waste are **NOT** to be included in the fill percent determination. The fill percent is to be recorded in increments (e.g., 0-25 percent, 26-66 percent, 67-90 percent, or 91-100 percent).

- [E] Estimate, **AND** record the fill percent.
 - [F] Ensure the bag liner is closed by either VE or AK record, if applicable.
 - [G] Enter the number of Layers of Confinement for the package.
 - [H] Record the Closure Method(s) for the individual Layers of Confinement. Use the Comments field on Attachment 1 if additional room is needed.
 - [I] Ensure the lid of the waste container is installed in accordance with Host site procedures, if applicable.
-

NOTE

The primary container contents are defined as Concrete (sludge waste), Steel (ferrous and non-ferrous metal), and Organic Material (material that is not Concrete or Steel).

- [J] Determine the primary container contents and check one on Attachment 1.
- [K] **IF** the waste stream is S3000 OR S4000 waste that also contains debris, **THEN** visually estimate the total weight of debris in the container of waste and record the debris weight in the comment field of Attachment 1.
- [L] Answer the Prohibited Item/RH 72B questions on Attachment 1.
- [M] Determine amount of organic waste in 10 percent increments by volume and record in comments field on Attachment 1.

4.2.5 Certify the contents of the package by performing the following:

VEO 1

[A] Print name, sign, **AND** date Attachment 1 to annotate that the VE has been completed.

VEO 2

[B] Print name, sign, **AND** date Attachment 1 to annotate that the VE has been completed.

VEO

[C] Ensure the waste package is stored with reasonable protection from tampering.

4.3 Batch Data Report Preparation

NOTE

The Testing BDR will contain Attachment 1s for no more than 20 containers. Each container may hold several smaller packages, and each of those may potentially also hold smaller packages, resulting in a number of Attachment 1s for each container.

BDR numbering will be as follows: RH, site, process, year, next sequential number to start back at one at the beginning of the new year (e.g., RHANLVE050001).

VEO

NOTE

For packages VE'd by tape review, the original packaging data sheet, if available (obtained from AK), is included in the BDR and placed behind the corresponding Attachment 1 (See Attachment 6, Waste Package Data Sheet, for an example).

4.3.1 Complete Attachment 4.

4.3.2 Assemble the following data for the BDR:

[A] Attachment 5, Visual Examination Batch Data Report Table of Contents

[B] Attachment 1 for each container, original packaging data sheet (if applicable), and the associated Attachment 1s for the internal containers

[C] Attachment 2, Visual Examination Independent Technical Reviewer Checklist

[D] Copy of NCRs, if applicable

4.3.3 Prepare the BDR as follows:

[A] Assemble and organize the BDR.

[B] Place the Internal Container Attachment 1s and original packaging data sheet if applicable, behind the Final Container Attachment 1 in which it resides.

[C] Paginate the BDR.

[D] Complete Attachment 5.

4.3.4 Submit the in process BDR to the VE Expert. The VE Expert will designate ITR.

NOTE

The independent technical review is conducted by an individual who is qualified to have performed the initial work, but who is **NOT** directly responsible for performing the work. The ITR shall not be involved in the generation or recording of the data.

ITR

4.3.5 Enter the BDR Number on Attachment 2.

4.3.6 Review the BDR to the criteria in Attachment 2, **AND** document on Attachment 2.

4.3.7 Print name, sign, and date Attachment 2.

4.3.8 Submit the completed BDR and audio/video media, when applicable, to the Facility Records Custodian/Records Custodian.

NOTE

The historical audio/media record may be submitted on a container basis (individual audio/video record per container) or pre-submitted as a library (audio/video records which contain multiple containers) to Central Characterization Project (CCP) Records.

Facility Records Custodian/Records Custodian

- 4.3.9 Receive, process, and transmit the completed BDR and audio/video media, where applicable, in accordance with CCP-QP-008.
- 4.4 Site Project Manager (SPM) Review

SPM

- 4.4.1 Obtain copy of BDR.
- 4.4.2 Enter the BDR Number on Attachment 3.
- 4.4.3 Review the BDR to the criteria in Attachment 3, **AND** document on Attachment 3.
- 4.4.4 Print name, sign, and date Attachment 3.
- 4.4.5 Forward the completed Attachment 3 to the Facility Records Custodian/Records Custodian.

5.0 RECORDS

- 5.1 Records generated during the performance of this procedure are maintained as Quality Assurance (QA) records in accordance with CCP-QP-008. The records are the following:

5.1.1 QA/Lifetime

- [A] Batch Data Report (BDR):
 - [A.1] Attachment 1, Visual Examination Data Form(s)
(There will be multiple Attachment 1s to each BDR package.)
 - [A.2] Attachment 2, Visual Examination Independent Technical Reviewer Checklist
 - [A.3] Attachment 3, Visual Examination Site Project Manager Checklist
 - [A.4] Attachment 4, Visual Examination Batch Data Report Cover Sheet
 - [A.5] Attachment 5, Visual Examination Batch Data Report Table of Contents
 - [A.6] Copy of NCRs, if applicable

5.1.2 QA/Nonpermanent

- [A] VHS Tape or DVD, as applicable

Table 1. Prohibited Items List

<u>LIST OF PROHIBITED ITEMS</u>
<p><u>Liquid Wastes</u></p> <p>Observable liquid shall be less than 1 percent by volume of the outermost container at the time of RTR or VE.</p> <p>Observable liquid shall be no more than 60 milliliters or 3 percent by volume, whichever is greater, in an internal container.</p> <p>Observable liquid shall not be present in a container with EPA HWN U134 assigned.</p>
Non-Radionuclide Pyrophorics
Non-mixed hazardous waste
<p>Incompatible wastes</p> <p>(Wastes that are incompatible with backfill, seal and panel closure materials, container and packaging materials, shipping container materials, and/or other wastes).</p>
Explosives
Compressed Gases/Pressurized containers (e.g., aerosol cans)
Observable liquid containing Polychlorinated Biphenyls (PCBs)
Ignitables
Corrosives
Reactive waste
Sealed containers greater than 4 liters
Heat-sealed bags not defined in the applicable RH-TRU Payload Appendices, Table 2.5.1
Sharp or heavy objects not adequately blocked, braced, or packaged
Waste that has ever been managed as high-level waste and waste from tanks specified in Table C-8 of CCP-PO-001.

Table 2. Waste Material Parameters

Waste Material Parameter	Description
Iron-based Metals/Alloys (IM)	Iron and steel alloys in the waste; does not include the waste container materials
Aluminum-based Metals/Alloys (AM)	Aluminum or aluminum-based alloys in the waste materials
Other Metals (OM)	All other metals found in the waste materials
Other Inorganic Materials (OIM)	Nonmetallic inorganic waste including concrete, glass, firebrick, ceramics, sand, and inorganic sorbents
Cellulosics (C)	Materials generally derived from high-polymer plant carbohydrates; (e.g., paper, cardboard, wood, and cloth)
Rubber (R)	Natural or man-made elastic rubber gloves, latex materials; (e.g., surgeons' gloves, and leaded rubber gloves)
Plastics (waste materials) (P)	Generally man-made materials, often derived from petroleum feedstock; (e.g., polyethylene and polyvinylchloride)
Organic Matrix (OGM)	Cemented organic resins, solidified organic liquids and sludges
Inorganic Matrix (IGM)	Any homogeneous materials consisting of sludge or aqueous-based liquids that are solidified with cement, calcium silicate, or other solidification agents; (e.g., wastewater treatment sludge, cemented aqueous liquids, and inorganic particulates)
Soils/gravel (S)	Generally consists of naturally occurring soils that have been contaminated with inorganic waste materials

Attachment 1 – Visual Examination Data Form

Site ID and Location of Packaging Activity:			
Examination Date:		Batch Number:	
Procedure #:		Revision #:	Video Number:
Recording Equipment Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT <input type="checkbox"/> N/A		Recording Start:	Recording Stop:
Initial Container <input type="checkbox"/> N/A		Final Container <input type="checkbox"/> N/A	
Container or Package ID Number:		Container or Package ID Number:	
Container Type:		Container Type:	
Waste Matrix Code:		Waste Matrix Code:	
Waste Stream:		Waste Stream:	
		Rigid Liner: <input type="checkbox"/> Y <input type="checkbox"/> N Type:	Rigid Liner Lid: <input type="checkbox"/> Y <input type="checkbox"/> N
		Rigid Liner Vented or Hole Size:	
Percent Fill:		Percent Fill:	
Layers of Confinement:	Closure Method:	Layers of Confinement:	Closure Method:
Comments (e.g., filter information, NCRs):			
Waste Description:			
Primary Contents (check one)		<input type="checkbox"/> Concrete <input type="checkbox"/> Steel <input type="checkbox"/> Organic Material	

Attachment 1 – Visual Examination Data Form (continued)

Container or Package ID Number _____

Prohibited Item(s) Summary			
	YES	NO	N/A
Does the container have observable liquid equal to or greater than 1 percent by volume of the outermost container at the time of RTR or VE?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the container have observable liquid more than 60 milliliters or 3 percent by volume, whichever is greater in an internal container?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the container have observable liquid with an EPA hazardous waste number (HWN) U134 assigned?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the container have observable liquid containing PCBs?			
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match Table of Allowable Materials for RH-TRU Waste in the RH-TRAMPAC)?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there an indication of polychlorinated biphenyls (PCBs) not authorized under an EPA PCB waste disposal authorization?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input type="checkbox"/>	
RH 72B Criteria			
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input type="checkbox"/>	
Are there sealed containers GREATER than 4 liters or heat sealed bags NOT defined in the applicable TRUCON Code?	<input type="checkbox"/>	<input type="checkbox"/>	
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the waste consistent with the TRUCON Code?	<input type="checkbox"/>	<input type="checkbox"/>	
Comments:			
Visual Examination Operator 1:			
_____	_____	_____	
Print Name	Signature	Date	
Visual Examination Operator 2:			
_____	_____	_____	
Print Name	Signature	Date	

Attachment 2 – Visual Examination Independent Technical Reviewer Checklist

Batch Data Report No.: _____

1. Were data generation and reduction conducted in a technically correct manner in accordance with the methods (procedure) used?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of the operating procedure used?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Were all the transcription errors corrected?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Are BDR contents complete and match the Visual Examination Batch Data report Table of Contents?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
5. Does the BDR include VE for no more than 20 containers?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Is all data recorded signed and dated in reproducible ink?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
7. Is all raw data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
8. Are all changes to original data lined out, initialed and dated by the individual making the changes or an individual authorized to make the change?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is there an adequate written description of the contents?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Were the recording equipment checks satisfactory?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
11. Has each container in this BDR been evaluated for the presence of prohibited wastes?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Has the physical waste form in each container in this BDR been evaluated against the Waste Stream Description and the Waste Matrix Code?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Have the RH Quality Assurance Objectives (QAOs) for VE been met?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
Precision – reconciled discrepancies between operators or between the operator and ITR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accuracy – trained operators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Representativeness – description of container contents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completeness – completed data form and/or recording	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparability – proper training and adequate AK source documents are available for unopened containers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Were NCRs generated included in the BDR?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
Comments:			

Independent Technical Reviewer:

Printed Name

Signature

Date

Attachment 4 – Visual Examination Batch Data Report Cover Sheet

Batch Data Report No.: _____ Date: _____

Waste Container ID Number:	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Attachment 5 – Visual Examination Batch Data Report Table of Contents

Batch Data Report No.: _____ Date: _____

Item	Description	Page No.
1	Visual Examination Batch Data Report Cover Sheet (Attachment 4)	
2	Visual Examination Batch Data Report Table of Contents (Attachment 5)	
3	Visual Examination Data Forms (Attachment 1)	
4	Visual Examination Independent Technical Reviewer Checklist (Attachment 2)	
5	Copy of NCRs (N/A [If not applicable])	

Attachment 6 – Waste Package Data Sheet (Example)

RH-TRU (30 Gallon Drum)
Waste Package Data Sheet

RW: 81798
AGHCF Drum #: 849

Date Loaded: 6/4/02
Seal No.: 00849
Drum Vent No.: ANL-176

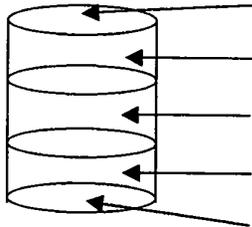
Combustible: (check)
Noncombustible: (check)
Loaded By: SJA, DPM

Top Waste Can No.: 324
Bottom Waste Can No.: 323
Drum packaging materials inspected by: JP
Total Weight of Loaded Drum: 115 lbs

Inner Pouch Vent No.: A-31-94
Outer Pouch Vent No.: A-56-94

Acceptable Smearable Levels: <20 dpm/100cm² alpha and 1000 dpm/100 cm² beta-gamma:
Inner Pouch Primary Seal (dpm/100 cm²) NCD alpha NCD beta-gamma
Outer Pouch Secondary Seal (dpm/100 cm²) NCD alpha NCD beta-gamma
Exterior of 30-gal Drum (dpm/900 cm²) NCD alpha NCD beta-gamma
(large area smear)

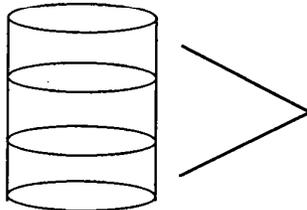
Radiation Levels from 30-gal Drum at 6 cm, R/hr, gamma:



top: 1.5
top third: 4.4
middle third: 4.4
bottom third: 5.3
bottom: 1.2

Survey meter used: RMS3
Serial Number: 263
Last Calibration: 3/02

Radiation Levels at Various Distances from Drum:



Distance from Drum:	1 m (3 ft)	.78 m (6 ft)
Gamma Rad. Level (mR/hr)	400	300
Survey Meter Used:	RMS3	RMS3
Serial No.:	263	263
Last Calibration:	3/02	3/02

Surveyed at the AGHCF by: S. Yan Location: AGHCF Date: 6-4-02