Controlled
Copy

CCP-TP-035

Revision 23

CCP
Container Management

EFFECTIVE DATE: 01/25/2010

Larry Porter

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
5	05/16/2002	Placed in current CCP-QP-010 format; corrected a typo in Section 3.2.2; revised step 4.1.1 and added attachment 5 to meet the new WAC requirements.
6	09/03/2002	Revised Attachment 1.
7	10/18/2002	Revised Sections 3.2 and 3.3.
8	01/06/2003	Added step 3.1.2 and steps 4.2.4 [A] through [C].
9	02/10/2003	Updated 1.0, Note above 4.1.2, deleted 4.1.3, updated 4.2.2, 4.2.4, 4.3.1[B], added steps 4.3.1 [D] & [E] and added to steps 4.4.1 [B], [C], and [D], add new Section 4.5.
10	09/25/2003	Revisions made as Corrective Actions for CAR-SRS-0006-03. Revised section 1.0, 2.0, 3.0, 4.0, Attachment 1 and Attachment 2 and added new section 4.2. Removed old sections 4.2 through 4.7. Incorporated CBFO comments.
11	04/21/2004	Revised Section 3.0 and 4.0. Deleted Attachments 2 and 3. Added meaning of acronym (PIR) – Prohibited Item Removal.
12	09/30/2004	Revised step 4.1.6, 4.1.7, 4.1.8 and 4.1.9 to verify Attachment 2 has been completed for each drum. Changed Section 1.1 and 4.2 (NOTE), and added new Attachment 4, CCP Radiography Batch Weight Record on SRS TRU Pad 4 based on Audit Observations I04-10-0-02 and I04-10-0-04.
13	03/29/2005	Revised to support SRS Authorization Basis (AB) requirements.
14	05/13/2005	Revised to add a section to record container weights for Visual Examination (VE).
15	09/08/2005	Revised to allow Visual Examination (VE) in lieu of Real Time Radiography (RTR) and made consistent with other CCP Container Management Procedures.
16	10/19/2006	Revised in response to CAR No. 06-037.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
17	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR). Addressed Carlsbad Field Office (CBFO) Document Review Record (DRR) comments.
18	11/17/2006	Revised in response to CAR No. 06-037.
19	12/14/2006	Revised to address United States Department of Energy (DOE) Carlsbad Field Office (CBFO) Document Review Record (DRR) Comments.
20	02/26/2007	Revised to address Drum Assessment Criteria. Deleted TRU Pad 15 verbiage throughout document. Renamed Attachments 2 and 3.
21	08/28/2007	Revised to include the flammable gas analysis process.
22	09/02/2008	Revised to change drum to container and to rename Attachment 3, Structural Integrity and Distortion Criteria.
23	01/25/2010	Revised in response to Corrective Action Report (CAR)-Los Alamos National Laboratory (LANL)-0006-09.

TABLE OF CONTENTS

LIST OF ATTACHMENTS

1.0 PURPOSE

This procedure describes and implements the Central Characterization Project (CCP) management, control, and tracking of transuranic (TRU) waste containers during the characterization process.

The inspection criteria, in Attachment 3, Structural Integrity and Distortion Criteria, is used primarily to determine if the container can be processed through the characterization equipment.

1.1 Scope

CCP is tasked with characterizing and certifying TRU waste for transportation to and disposal at the Waste Isolation Pilot Plant (WIPP).

This procedure applies to CCP personnel and Savannah River Site (SRS) personnel who support CCP TRU waste characterization activities at SRS.

SRS may use their own procedures for container weighing, movement, and handling. Container tracking and management through CCP characterization activities will be conducted using this procedure.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*

Referenced Documents

- 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 None.

2.3 Equipment List

2.3.1 None.

2.4 Precautions and Limitations

2.4.1 **IF** the steps in this procedure CAN **NOT** be completed, **THEN** work must be STOPPED, equipment placed in a safe configuration, and the CCP Vendor Project Manager (VPM)/Designee notified.

2.4.2 Workers who will be working in a radiation area must have read and signed that they understand the applicable Radiological Work Permit (RWP).

2.5 Prerequisite Actions

2.5.1 None.

3.0 RESPONSIBILITIES

3.1 Generating Site Waste Handlers (GSWH)

3.1.1 Affixes the CCP Container Traveler (Label) (Attachment 1) to containers designated for CCP characterization units.

3.1.2 Performs all movement of containers (unless otherwise directed by the VPM, all containers must go to Real-Time Radiography [RTR] first, and then to other characterization processes as needed).

3.1.3 Verifies containers are on the Acceptable Knowledge (AK) Tracking Spreadsheet or other container tracking document.

3.1.4 Notifies CCP VPM or designee that containers are ready for CCP container acceptance.

3.2 CCP Vendor Project Manager (VPM)/Designee

3.2.1 Reports to the CCP Site Project Manager (SPM):

[A] Reviews and approves Attachment 2, Structural Integrity and Distortion Criteria Report and submits to the CCP Facility Records Custodian.

[B] Verifies containers are on the AK Tracking Spreadsheet or other container tracking document.

[C] Determines if the containers can be processed through the characterization equipment.

[D] Determines if the containers have been randomly selected for Head Space Gas (HSG) analysis.

3.3 CCP Site Project Manager (SPM)/Designee

3.3.1 Dispositions Nonconformance Report (NCR) Containers for processing as needed.

3.4 First Line Manager (FLM)

3.4.1 Notifies GSWH for container movements as requested.

3.5 CCP Characterization Personnel

3.5.1 Completes Applicable Section of Attachment 1, CCP Container Traveler (Label), after performing characterization.

3.6 Facility Records Custodian

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

4.0 PROCEDURE

NOTE

This procedure provides the general flowpath of the characterization process. Attachment 1 serves as the container status indicator throughout characterization.

NOTE

No container may be processed without a completed Attachment 2 and affixed Attachment 1. Containers must go through RTR first, unless otherwise directed by the VPM.

4.1 Waste Container Receipt and Identification

GSWH

4.1.1 Affix Attachment 1 to the lid of the container.

[A] Record the container identification (ID) number on Attachment 1.

[B] Record the waste stream number from the AK Tracking Spreadsheet on Attachment 1.

CCP VPM/Designee

4.1.2 Using Attachment 2, verify that each container in the staging area meets the following conditions:

NOTE

The assessment criterion, Attachment 3, Structural Integrity and Distortion Criteria, is used primarily to determine whether repackaging will be required prior to shipment. Containers will also be assessed to determine if they can withstand and are compatible with equipment used for characterization.

Containers that DO **NOT** meet container assessment criteria requirements **AND** are determined to be incompatible, **OR** the condition of the container CAN **NOT** withstand the characterization process, shall be returned to the Host Site for repacking.

[A] Container ID Label

[B] Structural Integrity and Distortion Criteria (See Attachment 3) (SAT/UNSAT)

[C] Bar Code Label (SAT/UNSAT)

4.1.3 Determine that the container can be processed through the characterization equipment by evaluating each container using Attachment 3, **AND** complete Attachment 2 for all containers selected for processing.

4.1.4 **IF** the container is **NOT** "OK to process",
THEN record NO on Attachment 2, DO **NOT** accept the container, **AND** return the container to the Host site.

4.1.5 Verify containers are on the AK Tracking Spreadsheet, **AND** verify the waste stream number is correct as listed on the Attachment 1.

4.1.6 Determine if the container has been randomly selected for HSG analysis.

[A] **IF** the container has been randomly selected for HSG analysis,
THEN circle HSG on Attachment 1.

[B] **IF** the container has not been randomly selected for HSG analysis,
THEN circle Flammable Gas Analysis (FGA) on Attachment 1.

4.1.7 Place a Red C with initials and date at top right hand corner of Attachment 1.

4.1.8 Forward approved Attachment 2 to Facility Records Custodian.

Facility Records Custodian

4.1.9 Receive, process, and transmit Attachment 2 in accordance with CCP-QP-008.

GSWH

4.1.10 Verify there is a Red C with initials and date at the top right hand corner of the Attachment 1.

4.1.11 Move all the containers to RTR first, unless authorized by the VPM, **AND** then to appropriate characterization process, as required.

4.2 Scale Calibration Check and Waste Container Weighing for SRS RTR Unit

GSWH

4.2.1 Verify that scale calibration is current, record scale error on Attachment 4, CCP Radiography Batch Weight Record for SRS RTR Unit, **AND** check YES or NO.

4.2.2 Place 100 to 200 pounds of calibrated weights on the scale.

4.2.3 Perform a weight check on the scale.

4.2.4 Verify that the scale digital readout calibrated weight total indicates +/- 5 pounds of the calibrated weight.

4.2.5 Record the weight of the weight test on Attachment 4, **AND** check Yes or No.

4.2.6 Remove the calibrated weights.

4.2.7 **IF** the test fails,
THEN repeat the weight check.

4.2.8 **IF** the test fails a second time,
THEN STOP WORK, **AND** notify the SRS RTR Unit Operator to initiate an NCR in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*.

4.2.9 Weigh the individual waste containers, record the Container ID, and gross weight (kilogram [kg]), and initial on Attachment 4.

4.2.10 Record gross weight on the Attachment 1.

4.2.11 Forward a copy of Attachment 4 to the SRS RTR Unit Operator.

4.2.12 Print name, sign, and date Attachment 4.

4.2.13 Forward Attachment 4 to the Facility Records Custodian.

Facility Records Custodian

4.2.14 Receive, process, and transmit Attachment 2 in accordance with CCP-QP-008.

4.3 Container Processing

NOTE

If an NCR (CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*, Attachment 1, CCP Nonconforming Reporting) is initiated at anytime in the CCP process from the initial introduction of the container into the CCP process to shipment of the container to WIPP, the affected container(s) shall have a CCP HOLD TAG applied as soon as they are accessible for characterization. The container may continue through the characterization unless specific limitations are identified in the approved NCR disposition. After characterization is complete, the container will be segregated until the hold is removed. In **NO** case shall the container proceed to shipment until the NCR disposition is complete.

CCP Characterization Personnel

4.3.1 Circle YES or NO on Attachment 1 for system certification status.

[A] **IF** NO,
THEN place under a VPM Administrative Hold (i.e., attach a VPM Administrative Hold Indicator to the container), **AND** segregate the container.

[A.1] Request GSWH to segregate the container.

4.3.2 **WHEN** the containers have been through any process,
THEN verify that the information on Attachment 1 has been completed.

GSWH

4.3.3 **IF** any of the requested information has **NOT** been filled out,
THEN request process personnel complete required information.

[A] For applicable RTR or VE process, perform the following:

[A.1] Verify gross weight.

[A.2] Verify tare weight.

[A.3] Verify percent fill.

[A.4] Verify applicable RTR or VE section has been initialed and dated.

[B] For Nondestructive Assay (NDA) process perform the following:

[B.1] Verify that NDA machine for processing has been marked appropriately.

[B.2] Verify NDA line has been initialed and dated.

[C] For HSG process, perform the following:

[C.1] Prior to container placement in Thermal Conditioning Unit (TCU) verify Attachment 1 has been initialed, dated, and time noted.

[C.2] Verify TCU number has been identified.

[C.3] Verify HSG Sample line has been initialed and dated.

[D] For FGA process perform the following:

[D.1] Verify the FGA line has been initialed and dated.

NOTE

If original lid (with Attachment 1) has been replaced back on the container, the Attachment 1 information does **NOT** need to be reproduced.

VE Operator

[E] For Prohibited Items Removal (PIR) process, record PIR, **AND** initial and date in the top left corner of Attachment 1.

NOTE

The certification status for PIR is dependent on the certification status of the NDE process and is indicated in the NDE Section of Attachment 1.

[E.1] **IF** new lid is used,
THEN ensure Attachment 1 has been reproduced,
AND placed on top of the container.

[F] For VE process, ensure that Attachment 1 has been reproduced and annotated VE complete.

[F.1] Verify that the VE Section has been completed.

CCP VPM/Designee

NOTE
Notification can include establishing a standard practice or providing specific written or verbal instructions.

4.3.4 Notify the FLM when the container is ready to be moved.

GSWH

4.3.5 Move the container to the designated area.

4.4 Continue Processes

4.4.1 Repeat Section 4.3, as required, to complete processing of each container.

CCP Characterization Personnel

4.4.2 For each characterization process, at the end of each shift, notify the CCP VPM with container processing information, as deemed appropriate by the CCP VPM.

VPM/Designee

4.5 Removing VPM Administrative Hold Indicator(s)

4.5.1 **AFTER** a system has been certified,
THEN ensure all associated VPM Administrative Hold Indicators for that system have been removed.

[A] Circle YES on Attachment 1, indicating that the system is certified.

[B] Strike through, initial and date the previous circled NO, indicating the system was **NOT** certified.

[C] Remove the container from the segregation area.

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/Nonpermanent

[A] Attachment 4, CCP Radiography Batch Weight Record for SRS RTR Unit

[B] Attachment 2, Structural Integrity and Distortion Criteria Report

[C] Written Notifications

Attachment 1 – CCP Container Traveler (LABEL)

GENERATING SITE WASTE HANDLERS:

Container ID:_____ _____ / _____
Date Initials

Waste Stream ID:_____ _____ / _____
Date Initials

NDE

Gross Weight: _____ lbs./ _____ kg. _____ / _____
Date Initials

Tare Weight:_____ lbs./ _____ kg. _____ / _____
Date Initials

Percent Fill:_____ % _____ / _____
Date Initials

System Certified (circle one)? YES NO
(If NO, place under VPM Administrative Hold) _____ / _____
Date Initials

NDE Complete (circle one)? YES NO _____ / _____
Date Initials

NDA

System Certified (circle one)? YES NO
(If NO, place under VPM Administrative Hold) _____ / _____
Date Initials

NDA Complete (circle one)? YES NO
IQ3 **OR** Other (circle one)?_____ _____ / _____
Date Initials

HSG

Place Container in TCU:_____ / _____ / _____
Initials Date Time

TCU Number:_____

System Certified (circle one)? YES NO
(If NO, place under VPM Administrative Hold) _____ / _____
Date Initials

HSG Complete (circle one)? YES NO _____ / _____
Date Initials

VE

Gross Weight: _____ lbs./ _____ kg. _____ / _____
Date Initials

Tare Weight: _____ lbs./ _____ kg. _____ / _____
Date Initials

Percent Fill:_____ % _____ / _____
Date Initials

Process Certified (circle one)? YES NO
(If NO, place under VPM Administrative Hold) _____ / _____
Date Initials

VE Complete (circle one)? YES NO _____ / _____
Date Initials

FGA

System Certified (circle one)? YES NO
(If NO, place under VPM Administrative Hold) _____ / _____
Date Initials

FGA Complete (circle one)? YES NO _____ / _____
Date Initials

Attachment 2 – Structural Integrity and Distortion Criteria Report

Container ID Number	Container Assessment Criteria (Initial)		Bar Code Label (Initial)		OK to Process Y/N	
	SAT	UNSAT	SAT	UNSAT		

Comments: _____

_____

_____

Completed by: _____ _____
Printed Name Signature Date

CCP VPM Approval: _____ _____
Printed Name Signature Date

Attachment 3 – Structural Integrity and Distortion Criteria

CONTAINER EXAMINATION		DISCUSSION OF CRITERIA
1.	Is the payload container obviously degraded?	Obviously degraded means clearly visible and potentially significant defects in the payload container or payload container surface.
2.	Is there evidence that the payload container is, or has been, pressurized?	Pressurization can be indicated by a fairly uniform expansion of the sidewalls, bottom or top. Past pressurization can be indicated by a notable outward deflection of the bottom or top. Verify that the payload container is not warped.
3.	Is there any potentially significant rust or corrosion such that wall thinning, pin holes, or breaches are likely or the load-bearing capacity is suspect?	Rust shall be assessed in terms of its type, extent, and location. Pitting, pocking, flaking, or dark coloration characterizes potentially significant rust or corrosion. This includes the extent of the payload container surface area covered, thickness, and, if it occurs in large flakes or built-up (caked) areas. Rusted payload containers may **NOT** be accepted if: • Rust is present in caked layers or deposits. • Rust is present in the form of deep metal flaking, or built-up areas of corrosion products. In addition, the location of rust should be noted; for example on a drum: top lid; filter region; locking chine; top one-third, above the second rolling hoop; middle one-third, between the first and second rolling hoops; bottom one-third, below the second rolling hoop; and on the bottom. Payload containers may still be considered acceptable if the signs of rust show up as: • Some discoloration on the payload container • If rubbed would produce fine grit or dust or minor flaking (such that wall thinning does not occur)
4.	Are any of the following apparent? • wall thinning • pin holes • breaches	Wall thinning, pin holes, and breaches can be a result of rust/corrosion (see discussion for #3).
5.	Are there any split seams, tears, obvious holes, punctures (of any size), creases, broken welds, or cracks?	Payload containers with obvious leaks, holes or openings, cracks, deep crevices, creases, tears, broken welds, sharp edges or pits, are either breached or on the verge of being breached. Verify that there is no warpage that could cause the container to be unstable or prevent it from fitting properly in the TRUPACT-II.

Attachment 3 – Structural Integrity and Distortion Criteria (Continued)

CONTAINER EXAMINATION		DISCUSSION OF CRITERIA
6.	Is the load-bearing capacity suspect?	The load-bearing capacity could be reduced for excessive rust (see discussion for #3), wall thinning (see discussion for #4), breaches, cracks, creases, broken welds, etc. (see discussion for #5).
7.	Is the payload container improperly closed?	Inspect the fastener and fastener ring (chine), if applicable, for damage or excessive corrosion. Check the alignment of the fastener to ensure that it is in firm contact around the entire lid and the payload container will not open during transportation.
8.	Are there any dents, scrapes, or scratches that make the payload container's structural integrity questionable or prevent the top and bottom surfaces from being parallel?	Deep gouges, scratches, or abrasions over wide areas are not acceptable. If top and bottom surfaces are not parallel, this would indicate that the container is warped. Dents should be less than ¼ inch deep by 3 inches long and between ½ inch to 6 inches wide. All other dents must be examined to determine impact of structural integrity.
9.	Is there discoloration which would indicate leakage or other evidence of leakage of material from the payload container?	Examine the payload container regions near vents, top lid fittings, bottom fittings, welds, seams and intersections of one or more metal sheets or plates. Payload containers must be rejected if evidence of leakage is present.
10.	Is the payload container bulged?	For the purposes of this examination, bulging is indicated by: • A fairly uniform expansion of the sidewalls, bottom, or top (e.g., in the case of a drum, either the top or bottom surface protrudes beyond the planar surface of the top or bottom ring); • A protrusion of the side wall (e.g., in the case of a drum, beyond a line connecting the peaks of the surrounding rolling hoops or a line between a surrounding rolling hoop and the bottom or top ring); or • Expansion of the sidewall (e.g., in the case of a drum, such that it deforms any portion of a rolling hoop).

Attachment 4 – CCP Radiography Batch Weight Record for SRS RTR Unit

Scale ID:_____

Weigh Scale Calibration Current: scale error ± _____ ☐ YES ☐ NO

Scale Weight Check Verified: weight _____ ☐ YES ☐ NO

_____ _____
GSWH Printed Name GSWH Signature

_____
Date

Container ID	Gross Wt. (kg)	GSWH Initial