

CCP-TP-120

Revision 14

CCP Container Management

EFFECTIVE DATE: 02/10/2010

Larry Porter

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	11/25/2003	Initial Issue.
1	03/26/2004	Incorporated CBFO Comment Resolutions: Revised step 4.1.5, inserted step 4.1.6 for VPM review and approval of Attachment 3, and inserted a VPM signature line on Attachment 3. Inserted step 3.7, VE Operator responsibilities into Section 3.0. Updated Sections 3.0, 4.0 and Attachments 1 and 2 for the container processes.
2	09/16/2005	Revised to address identification and control of filters installed in waste drums, formalize the inspections of drums as part of pre-screening activities, and to ensure proper checks are performed at the various processing areas.
3	03/31/2006	Revised to clarify filter inspections and add Visual Examination (VE) Random Selection responsibilities.
4	08/10/2006	Changes as a result of CAR-LANL-0006-06.
5	09/20/2006	Revised in response to CAR No.: 06-037.
6	02/09/2007	Revised to change method of container filter selection.
7	03/06/2007	Revised Section 4.4, and added new Section 4.5 for the Flammable Gas Analysis (FGA) process.
8	05/04/2007	Revised to separate Headspace Gas (HSG) from Flammable Gas Analysis (FGA) processing and tracking on the traveler.
9	07/16/2007	Revised to allow Visual Examination (VE) of Newly Generated Waste Containers not on the Acceptable Knowledge (AK) Tracking Spreadsheet.
10	10/11/2007	Revised to clarify that VE of Newly Generated Waste Containers at LANL is not an approved, certified process and the appropriate controls for such containers.
11	01/08/2008	Revised to clarify container inspection steps.
12	06/23/2008	Revised to clarify additional requirements for the use of Vendor Project Manager (VPM) Administrative Hold Indicators. Provided clarification in Section 4.1 of Operational Scale Checks, and made editorial changes.

RECORD OF REVISION (CONTINUED)

Revision Number	Date Approved	Description of Revision
13	09/21/2009	Revised to remove Vendor Project Manager (VPM) Administrative Hold controls on Visual Examination (VE) of newly generated waste containers as it is now a certified process at Los Alamos National Laboratory (LANL).
14	02/10/2010	Revised in response to Corrective Action Report (CAR)-Los Alamos National Laboratory (LANL)-0006-09 and to clarify when a waste container must be put through container management.

TABLE OF CONTENTS

1.0 PURPOSE 5
1.1 Scope..... 5

2.0 REQUIREMENTS..... 5
2.1 References 5
2.2 Training Requirements..... 5
2.3 Equipment List 5
2.4 Precautions and Limitations..... 5
2.5 Prerequisite Actions 6

3.0 RESPONSIBILITIES..... 7
3.1 CCP VPM/ Waste Handler/Designee..... 7
3.2 CCP VPM/Designee 7
3.3 CCP Site Project Manager (SPM)..... 8
3.4 Nondestructive Examination (NDE) Operator 8
3.5 Nondestructive Assay (NDA) Operator 8
3.6 Headspace Gas (HSG)/Flammable Gas Analysis (FGA) Operator..... 8
3.7 Visual Examination (VE) Operator 9
3.8 Facility Records Custodian 9

4.0 PROCEDURE..... 10
4.1 Container Inspection, Weighing, and Scale Operational Check..... 10
4.2 NDE Process 15
4.3 NDA Process 16
4.4 Headspace Gas (HSG) Process 17
4.5 Flammable Gas Analysis (FGA) Process..... 18
4.6 VE Process 19

5.0 RECORDS..... 21

LIST OF ATTACHMENTS

Attachment 1 – CCP Container Traveler (Label) (EXAMPLE)..... 22
Attachment 2 – Container Inspection Report..... 23
Attachment 3 – CCP Scale Operational Check and Container Weight Information..... 24
Attachment 4 – Structural Integrity and Distortion Inspections Criteria 25

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.

1.1 Scope

This procedure applies to personnel who support CCP TRU waste characterization activities at the Los Alamos National Laboratory (LANL). The Host site may use their procedures for container movement and handling. Container tracking and management through CCP 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-005, *CCP TRU Nonconforming Item Reporting and Control*
- CCP-QP-008, *CCP Records Management*
- CCP-TP-082, *CCP Preparing and Handling Waste Containers for Headspace Gas Sampling*

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 steps in the 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 Radiation Work Permit (RWP).
- 2.5 Prerequisite Actions
- 2.5.1 None.

3.0 RESPONSIBILITIES

NOTE

The CCP Container Traveler (Label) (see Attachment 1, CCP Container Traveler [Label], for an example) is a label which will be affixed to the container. The CCP Container Traveler (Label) will contain a minimum of the following information when completed: Container Identification (ID), Waste Stream ID, Gross Weight, Nondestructive Examination (NDE), Nondestructive Assay (NDA), Headspace Gas (HSG)/Flammable Gas Analysis (FGA) Completion Date, and HSG Thermal Conditioning data.

3.1 CCP VPM/ Waste Handler/Designee

- 3.1.1 Verifies containers are on the Acceptable Knowledge (AK) Tracking Spreadsheet.
- 3.1.2 Verifies containers have a legible radiological label/tag with a radiation dose equivalent rate of less than 200 millirem/hour (mrem/hr) at surface.

3.2 CCP VPM/Designee

- 3.2.1 Performs container integrity inspection using Attachment 4, Structural Integrity and Distortion Inspections Criteria, and Attachment 2, Container Inspection Report.
- 3.2.2 Performs container filter inspection and documents results on Attachment 2.
- 3.2.3 Records container weight information on Attachment 3, CCP Scale Operational Check and Container Weight Information.
- 3.2.4 Enters the Container ID, Waste Stream ID, and Gross Weight on the CCP Container Traveler (Label).
- 3.2.5 Ensures the CCP Container Traveler (Label) is affixed to containers designated for CCP characterization activities.
- 3.2.6 Schedules and Coordinates movement of containers to/from the characterization units and container staging/storage areas.
- 3.2.7 Assists with the segregation of deficient containers.
- 3.2.8 Performs scale operational check and container weighing.

- 3.2.9 Ensures VPM Administrative Hold Indicators are removed or invalidated when the Administrative Hold condition is corrected.
- 3.2.10 Ensures CCP HOLD TAGs are attached to identify waste containers.
- 3.3 CCP Site Project Manager (SPM)
 - 3.3.1 Selects containers for HSG and/or FGA and solid sampling, and notifies the CCP VPM/Designee.
- 3.4 Nondestructive Examination (NDE) Operator
 - 3.4.1 Records and updates the applicable NDE information on the CCP Container Traveler (Label).
 - 3.4.2 Provides the container processing information (Container ID Number, Batch Data Report [BDR] Number, Nonconformance Report [NCR] Number if applicable, and reason for NCR) to the CCP VPM/Designee.
- 3.5 Nondestructive Assay (NDA) Operator
 - 3.5.1 Records and updates the applicable NDA information on the CCP Container Traveler (Label).
 - 3.5.2 Provides the container processing information (Container ID Number, BDR Number, NCR Number if applicable, and reason for NCR) to the CCP VPM/Designee.
- 3.6 Headspace Gas (HSG)/Flammable Gas Analysis (FGA) Operator
 - 3.6.1 Records and updates the applicable HSG and/or FGA information on the CCP Container Traveler (Label).
 - 3.6.2 Provides the container processing information (Container ID Number, BDR Number, NCR Number if applicable, and reason for NCR) to the CCP VPM/Designee.

- 3.7 Visual Examination (VE) Operator
 - 3.7.1 Ensures a new CCP Container Traveler (Label) is affixed to the container after VE is completed.
 - 3.7.2 Records and updates the applicable VE information on the CCP Container Traveler (Label).
 - 3.7.3 Provides the container processing information (Container ID Number, BDR Number, NCR Number if applicable, and reason for NCR) to the CCP VPM/Designee.
- 3.8 Facility Records Custodian
 - 3.8.1 Receives, processes, and transmits all records generated by this procedure in accordance with CCP-QP-008, *CCP Records Management*.

4.0 PROCEDURE

NOTE

Within the constraints of this procedure and in order to meet operational needs, the CCP VPM/Designee may redirect drums as required to allow for process efficiencies or corrective action for nonconforming conditions. The CCP Container Traveler (Label) serves as the container status indicator throughout characterization activities.

NOTE

VPM Administrative Hold Indicators are affixed to containers for various administrative reasons throughout this procedure. When a VPM Administrative Hold Indicator is applied to a container(s), the SPM must be notified and will determine if an NCR needs to be generated.

NOTE

If an NCR (CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*, Attachment 1, CCP Nonconformance Report [NCR]) 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 the Waste Isolation Pilot Plant [WIPP]), the affected container(s) shall have a CCP HOLD TAG applied and be physically segregated if practical. Normally, the container may continue through the characterization process. If this is **NOT** the case, limitations or actions required in the approved NCR disposition shall be included on the CCP HOLD TAG. In NO case, shall the container proceed to shipment until the NCR disposition is complete.

NOTE

NO container may be processed without a completed container integrity inspection.

NOTE

Sections 4.1 through 4.6 may be performed independently.

4.1 Container Inspection, Weighing, and Scale Operational Check

NOTE

The inspection criteria in Attachment 2 are used to determine if the container can be safely handled. Containers that **DO NOT** meet container integrity requirements and are **NOT** safe to handle shall be returned to the Host site.

NOTE

Step 4.1.1 through step 4.1.6 SHALL be performed for each container.

NOTE

Off Site Source Recovery Project (OSRP) containers are packaged off-site and shipped to LANL. When the containers are received, they will be weighed and inspected prior to being added to the AK Tracking Spreadsheet.

NOTE

Newly generated waste containers may go through VE prior to being added to the AK Tracking Spreadsheet. Container integrity inspections, weighing, and CCP Container Traveler (Label) application will be performed at that time. Container information collected during the VE will be forwarded to the CCP VPM/Designee for addition to the AK Tracking Spreadsheet. Containers should not go through further certified processes until the container has been added to the AK Tracking Spreadsheet.

CCP VPM Waste Handlers/Designee

4.1.1 Verify containers have a Container ID Number and Waste Stream ID, **AND** are on the AK Tracking Spreadsheet, which is available at <ftp://q.wipp.ws>.

[A] **IF** containers are **NOT** on the AK Tracking Spreadsheet **AND** are OSRP containers, **THEN** attach a VPM Administrative Hold Indicator to the CCP Container Traveler (Label) when it is applied.

[B] **IF** containers are newly generated, **AND** VE has been performed, **THEN** Section 4.1 may be performed prior to the container being added to the AK Tracking Spreadsheet.

NOTE

Steps 4.1.2[B] and 4.1.2[D] may be performed simultaneously.

Steps 4.1.3 and 4.1.4 may be performed at any time between Steps 4.1.1 and 4.1.7

4.1.2 Perform the following and document results on Attachment 2.

[A] Verify Container ID Number.

[B] Perform Structural Integrity and Distortion Inspection per Attachment 4.

- [B.1] **IF** container meets inspection criteria,
THEN mark SAT.
- [B.2] **IF** container does not meet inspection criteria,
THEN mark UNSAT, **AND DO NOT** accept the container.
- [C] Verify the container is safe to handle.
 - [C.1] **IF** the container is safe to handle,
THEN mark YES.
 - [C.2] **IF** the container is unsafe to handle,
THEN mark NO, **DO NOT** accept the container,
AND return the container to the Host site.
- [D] Inspect each container for a completed radiological label/tag,
AND ensure the completed radiological label/tag is legible
and records a radiation dose equivalent rate of less than
200 mrem/hr at surface.
 - [D.1] **IF** incomplete **OR** NO radiological label/tag is
attached to the container,
THEN STOP WORK on container, **AND** request a
Radiological Control Technician (RCT) to perform
survey.
 - [D.2] **IF** completed radiological label/tag reports greater
than or equal to 200 mrem/hr at surface,
THEN mark UNSAT, STOP WORK on the container,
AND notify CCP VPM/Designee.
 - [D.3] **IF** completed radiological label/tag reports less than
200 mrem/hr at surface,
THEN mark SAT.
- 4.1.3 Initiate the CCP Container Traveler (Label) for each waste
container, record the Container ID and Waste Stream ID **OR** OSRP
(in place of Waste Stream ID), **AND** initial and date.
- 4.1.4 Attach the CCP Container Traveler (Label) to the top of the waste
container.
- 4.1.5 Perform container filter inspection, as follows:
 - [A] Verify manufacture ID, **AND** record on Attachment 2.

- [B] Verify filter model number as follows, **AND** record on Attachment 2.
- [B.1] Verify the model number is clearly marked on the filter and the model number is on the Carlsbad Field Office (CBFO)-approved filter list at www.wipp.energy.gov/library/wac/filtervents.pdf
- [B.2] **IF** the model number is **NOT** clearly marked on the filter,
THEN verify the filter is a Nucfil (NFT) Model 013, 072, or 073, as provided in training materials.
- [B.3] **IF** the model number is **NOT** on the CBFO-approved list,
THEN schedule the waste container for a filter changeout in accordance with CCP-TP-082, *CCP Preparing and Handling Waste Containers for Headspace Gas Sampling*.
- (a) **AFTER** filter changeout,
THEN REPEAT step 4.1.5.
- [C] Verify manufacture date **OR** serial number of filter, **AND** record on Attachment 2.

NOTE

If necessary, assistance SHALL be requested from qualified personnel to ensure that the filter vent is seated properly.

- [D] Ensure filter has proper gasket seating and/or tightness.
- [D.1] **IF** the filter is **NOT** found to be adequate,
THEN schedule the container for a filter changeout in accordance with CCP-TP-082.
- (a) **AFTER** filter changeout,
THEN REPEAT step 4.1.5.
- 4.1.6 **IF** the container is safe to handle **AND** meets the filter inspection criteria,
THEN accept the container for CCP characterization activities.

- 4.1.7 Perform scale operational check **AND** container weighing operations.
- [A] On each day the scale is used, perform the following:
- [A.1] **IF** the scale is an electronic scale,
THEN either verify the scale is turned ON, **OR** turn the power ON to the scale.
- [A.2] Record the Scale ID Number, Location, and Scale Calibration Due Date on Attachment 3, CCP Scale Operational Check and Container Weight Information.
- [A.3] Verify the scale calibration date is valid.
- (a) **IF** the scale calibration date is **NOT** valid,
THEN record NO on Attachment 3, **AND** return scale to Host site for recalibration.
- (b) **IF** the scale calibration date is valid,
THEN record YES on Attachment 3.
- [A.4] Check that the scale reads zero when **NOT** loaded.
- (a) **IF** the scale **DOES NOT** read zero,
THEN re-zero the scale in accordance with the manufacturer's instructions.
- [A.5] Perform an operational check to verify the scale response is satisfactory as follows:
- (a) Place a known calibrated check weight on the scale, **AND** verify the scale reads within 1.0 percent of the check weight used.
- (a.1) **IF** the scale reads within the operational range,
THEN record SAT on Attachment 3.
- (a.2) **IF** the scale reads outside of the operational range,
THEN STOP WORK, record UNSAT on Attachment 3, **AND** return scale to Host site for recalibration.
- (b) Return the check weight to its storage location.

[A.6] Initial and date Attachment 3.

[B] Weigh the containers as follows:

NOTE

Steps 4.1.7[B.1] and [B.2] can be performed in either sequence.

NOTE

Steps 4.1.7[B.1] through 4.1.7[B.5] shall be performed for each container.

[B.1] Ensure the CCP Container Traveler (Label) is affixed to the container.

[B.2] Load the container onto the scale, **AND** allow the scale reading to stabilize.

[B.3] Record the container's ID number and gross weight (pounds [lbs] and kilograms [kg]) on Attachment 3 and the CCP Container Traveler (Label), as necessary.

[B.4] Initial and date the CCP Container Traveler (Label), and Attachment 3 for obtaining the certification weight.

[B.5] Remove the container from the scale.

NOTE

The preparer and approver of Attachment 2 and Attachment 3 must be different individuals.

4.1.8 Print name, sign, and date Attachment 2 and Attachment 3, **AND** submit to the CCP VPM/Designee for review and approval.

CCP VPM/Designee

4.1.9 Review, print name, sign, and date Attachment 2 and Attachment 3, **AND** submit to the Facility Records Custodian.

4.2 NDE Process

NDE Operator

4.2.1 Verify that the containers delivered to the NDE process are on the AK Tracking Spreadsheet.

4.2.2 **IF** the containers are **NOT** the correct containers to be processed (e.g., **NOT** listed on the AK Tracking Spreadsheet), **THEN** return the containers to the Host site in lieu of processing.

4.2.3 Verify the CCP Container Traveler (Label) is affixed to the container.

[A] **IF NO** CCP Container Traveler (Label) is affixed to the container, **THEN STOP WORK** on container, **AND** notify the CCP VPM/Designee.

[B] **IF** the CCP Container Traveler (Label) is affixed to the container, **THEN** perform NDE in accordance with approved procedures.

4.2.4 Indicate system certification status by circling YES or NO on the CCP Container Traveler (Label), **AND** initial and date.

[A] **IF** system is **NOT** certified, **THEN** attach a VPM Administrative Hold Indicator to the container.

4.2.5 Document the NDE completion on the CCP Container Traveler (Label) by circling YES, **AND** initial and date.

4.2.6 Provide the container processing information (Container ID Number, BDR Number, NCR Number if applicable, reason for NCR) to the CCP VPM/Designee.

4.3 NDA Process

NDA Operator

4.3.1 Verify that the containers delivered to the NDA process are on the AK Tracking Spreadsheet.

4.3.2 **IF** the containers are **NOT** the correct containers to be processed (e.g., **NOT** listed on the AK Tracking Spreadsheet), **THEN** return the container to the Host site in lieu of processing.

4.3.3 Verify the CCP Container Traveler (Label) is affixed to the waste container.

[A] **IF** NO CCP Container Traveler (Label) is affixed to the container,
THEN STOP WORK on container, **AND** notify the CCP VPM/Designee.

[B] **IF** the CCP Container Traveler (Label) is affixed to the container,
THEN perform NDA in accordance with approved procedures.

4.3.4 Document the preliminary Pu-239 Fissile Gram Equivalent (FGE) value (plus 2-sigma) on the CCP Container Traveler (Label), **AND** initial and date.

[A] **IF** the preliminary Pu-239 FGE value (plus 2-sigma) is **NOT** immediately available,
THEN record Not Available (N/A) on the CCP Container Traveler (Label).

4.3.5 Indicate system certification status by circling YES or NO on the CCP Container Traveler (Label), **AND** initial and date.

[A] **IF** system is **NOT** certified,
THEN attach a VPM Administrative Hold Indicator to the container.

4.3.6 Document the NDA completion on the CCP Container Traveler (Label) by circling YES, **AND** initial and date.

4.3.7 Provide the container processing information (e.g., Container ID Number, BDR Number, NCR Number, reason for NCR) to the CCP VPM/Designee.

4.4 Headspace Gas (HSG) Process

HSG Operator

4.4.1 Verify the containers identified for random HSG sampling are on the AK Tracking Spreadsheet.

[A] **IF** containers are **NOT** identified for random HSG sampling,
THEN GO TO Section 4.5.

4.4.2 Move the waste containers identified for HSG sampling to the thermal conditioning area.

- [A] Verify the CCP Container Traveler (Label) is affixed to the container.
 - [A.1] **IF** NO CCP Container Traveler (Label) is affixed to the container,
THEN STOP WORK on container, **AND** notify the CCP VPM/Designee.
 - [A.2] **IF** the CCP Container Traveler (Label) is affixed to the container,
THEN record the date and time the container is placed in the Thermal Conditioning Area on the container's CCP Container Traveler (Label), **AND** initial the entry.
- 4.4.3 **AFTER** a minimum of 72 hours has elapsed since the container was placed in the Thermal Conditioning Area,
THEN move the container to the HSG Sampling Area, in accordance with Host site procedures.
- 4.4.4 Perform HSG sampling in accordance with approved procedures.
- 4.4.5 Indicate system certification status by circling YES or NO on the CCP Container Traveler (Label), **AND** initial and date.
 - [A] **IF** system is **NOT** certified,
THEN attach a VPM Administrative Hold Indicator to the container.
- 4.4.6 Document the HSG completion on the CCP Container Traveler (Label) by circling YES, **AND** initial and date.
- 4.4.7 Provide the container processing information (e.g., Container ID Number, BDR Number, NCR Number, reason for NCR) to the CCP VPM/Designee.
- 4.5 Flammable Gas Analysis (FGA) Process

FGA Operator

- 4.5.1 Verify the containers identified for FGA sampling are on the AK Tracking Spreadsheet.
- 4.5.2 Move the waste containers identified for FGA sampling to an approved sampling area.

4.5.3 Verify the CCP Container Traveler (Label) is affixed to the container.

[A] **IF** NO CCP Container Traveler (Label) is affixed to the container,
THEN STOP WORK on container, **AND** notify the CCP VPM/Designee.

[B] **IF** the CCP Container Traveler (Label) is affixed to the container,
THEN perform FGA sampling in accordance with approved procedures.

4.5.4 Document the FGA completion on the CCP Container Traveler (Label) by circling YES, **AND** initial and date.

4.6 VE Process

VE Operator

4.6.1 **IF** container is newly generated **AND** VE has been performed,
THEN GO TO step 4.6.3.

4.6.2 Verify the container has a CCP HOLD TAG attached that requires VE or contains an un-penetrable item identified during pre-screening process.

[A] **IF** the container **DOES NOT** meet one of the conditions required above,
THEN STOP WORK on container, **AND** notify CCP VPM/Designee.

[B] **IF** the container was selected for VE,
THEN perform VE in accordance with approved procedures.

NOTE

When a legacy waste container completes the VE process at LANL the resulting output waste container(s) are assigned a new container ID number(s). Section 4.6.3 can be performed on the output waste container(s) using the new container ID number(s) and the waste stream ID from the original container. Verification that the waste container is on the AK Tracking List is not required for completing this section. Prior to the waste container completing any subsequent characterization, verification that the waste container ID is on the AK Tracking List is necessary.

- 4.6.3 **WHEN** VE Operations have been completed, **THEN** ensure a new CCP Container Traveler (Label) is attached to the container, **AND** record the following:
- [A] Container ID.
 - [B] Waste Stream ID.
 - [B.1] Initial and date confirming Container ID and Waste Stream ID.
 - [C] Gross Weight (lbs and kg) and initials and date.
- 4.6.4 Indicate process certification status by circling YES or NO on the CCP Container Traveler (Label), **AND** initial and date.
- [A] **IF** process is **NOT** certified, **THEN** attach a VPM Administrative Hold Indicator to the container.
- 4.6.5 Document the VE completion on the CCP Container Traveler (Label) by circling YES, **AND** initial and date.
- 4.6.6 Provide the container processing information (e.g., Container ID Number, Waste Stream ID, BDR Number, NCR Number if applicable, reason for NCR) to the CCP VPM/Designee.

Facility Records Custodian

- 4.6.7 Receive, process, and transmit all records generated by this procedure in accordance with CCP-QP-008.

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] Attachment 2, Container Inspection Report
- [B] Attachment 3, CCP Scale Operational Check and Container Weight Information

Attachment 1 – CCP Container Traveler (Label) (EXAMPLE)

Container ID: _____	_____ / _____
	Date / Initials
Waste Stream ID: _____	
Gross Weight: _____ lbs. / _____ kg.	_____ / _____
	Date / Initials
<hr/>	
NDE	
System Certified (circle one)? YES NO (If NO, place under VPM Administrative Hold)	_____ / _____
	Date / Initials
NDE Complete (circle one)? YES NO	_____ / _____
	Date / Initials
<hr/>	
NDA	
System Certified (circle one)? YES NO (If NO, place under VPM Administrative Hold)	_____ / _____
	Date / Initials
NDA Complete (circle one)? YES NO	_____ / _____
	Date / Initials
Pu 239 FGE: _____ Value (Plus 2-sigma)	_____ / _____
	Date / Initials
<hr/>	
HSG	
Container Placed in HSG Thermal Conditioning Area:	_____ / _____ / _____
	Date / Time / Initials
System Certified (circle one)? YES NO (If NO, place under VPM Administrative Hold)	_____ / _____
	Date / Initials
HSG Complete (circle one)? YES NO	_____ / _____
	Date / Initials
<hr/>	
FGA	
FGA Complete (circle one)? YES NO	_____ / _____
	Date / Initials
<hr/>	
VE	
Process Certified (circle one)? YES NO (If NO, place under VPM Administrative Hold)	_____ / _____
	Date / Initials
VE Complete (circle one)? YES NO	_____ / _____
	Date / Initials

Attachment 4 – Structural Integrity and Distortion Inspections 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 drum 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?	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>Payload containers may still be considered acceptable if the signs of rust show up as:</p> <ul style="list-style-type: none"> • 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? <ul style="list-style-type: none"> • wall thinning • pin holes • breaches 	Wall thinning, pin holes, and breaches can be a result of rust/corrosion (see discussion for #3).

Attachment 4 – Structural Integrity and Distortion Inspections Criteria (Continued)

CONTAINER EXAMINATION		DISCUSSION OF CRITERIA
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.
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 properly 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: <ul style="list-style-type: none"> • 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).