

CCP-TP-106

Revision 7

CCP Headspace Gas Sampling Batch Data Report Preparation

EFFECTIVE DATE: 12/29/2010

Larry Porter

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	12/08/2003	Initial Issue.
1	03/31/2004	Revised Sections 2.0-5.0 and Attachments 1-5 to reflect changes to HSG procedures CCP-TP-043 and CCP-TP-093.
2	03/03/2005	Revised to incorporate Host site-specific requirements.
3	04/15//2005	Revised to address CBFO comments.
4	08/21/2006	Revised to address CAR-LANL-0006-06 and incorporated a change on Attachment 2, HSG Sampling Batch Data Report Table of Contents.
5	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).
6	07/12/2007	Revised to combine requirements of Attachment 4, CCP HSG Lead Operator (LO) Review Checklist, into Attachment 3, Independent Technical Reviewer (ITR) Review Checklist, and incorporate procedural step changes to support it. Incorporated changes to Items 4 and 5 of Attachment 3 to reflect wording changes to CCP-TP-093, Revision 13, <i>CCP Sampling of TRU Waste Containers</i> , and incorporated editorial changes.
7	12/29/2010	Revised to clarify independent technical reviewer (ITR) independence.

TABLE OF CONTENTS

1.0 PURPOSE 4
 1.1 Scope..... 4

2.0 REQUIREMENTS..... 4
 2.1 References 4
 2.2 Training Requirements..... 5
 2.3 Equipment List 5
 2.4 Precautions and Limitations..... 5
 2.5 Prerequisite Actions..... 5

3.0 RESPONSIBILITIES..... 6
 3.1 HSG Drum Samplers 6
 3.2 HSG Independent Technical Reviewer (ITR)..... 6
 3.3 Facility Records Custodian 6

4.0 PROCEDURE..... 7
 4.1 Sampling BDR Assembly at the Data Generation Level 7

5.0 RECORDS..... 10

LIST OF ATTACHMENTS

Attachment 1 – HSG Sampling Batch Data Report Cover Sheet 12
Attachment 2 – HSG Sampling Batch Data Report Table of Contents 13
Attachment 3 – Independent Technical Reviewer (ITR) Review Checklist..... 14

1.0 PURPOSE

This procedure describes the process to prepare the sampling Batch Data Report(s) (BDRs) for Headspace Gas (HSG) analysis of transuranic (TRU) waste drums. This procedure provides data generation level verification and validation.

1.1 Scope

This procedure applies to personnel responsible for TRU waste container HSG Sampling BDR preparation and performance of data generation level reviews for sampling activities associated with CCP-TP-093, *CCP Sampling of TRU Waste Containers*. The data generated by this procedure meets the requirements found in CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- *Waste Isolation Pilot Plant Hazardous Waste Facility Permit, NM4890139088-TSDF, Attachment C, Waste Analysis Plan (WAP)*
- *Title 40 Code of Federal Regulations (CFR) Part 261, Appendix VIII, Hazardous Constituents*
- *CCP-PO-002, CCP Transuranic Waste Certification Plan*
- *CCP-PO-003, CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
- *CCP-QP-005, CCP TRU Nonconforming Item Reporting and Control*

Referenced Documents

- *CCP-PO-001, CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- *CCP-QP-002, CCP Training and Qualification Plan*
- *CCP-QP-008, CCP Records Management*

- CCP-TP-082, *CCP Preparing and Handling Waste Drums for Headspace Gas Sampling*
- CCP-TP-093, *CCP Sampling of TRU Waste Containers*
- CCP-TP-098, *CCP Installation of the NucFil HSG Sample Port*

2.2 Training Requirements

2.2.1 Personnel performing this procedure will be trained and qualified in accordance with the requirements of 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 None.

2.5 Prerequisite Actions

2.5.1 None.

3.0 RESPONSIBILITIES

3.1 HSG Drum Samplers

3.1.1 Prepares the Sampling BDR.

3.1.2 Reviews the Sampling BDR.

3.2 HSG Independent Technical Reviewer (ITR)

NOTE

The independent technical review will be performed by someone who is trained and qualified to have done the work but shall not be involved in the generation or recording of the data under review.

3.2.1 Performs the independent technical review of Sampling BDRs.

3.3 Facility Records Custodian

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

4.0 PROCEDURE

4.1 Sampling BDR Assembly at the Data Generation Level

NOTE

HSG sampling personnel trained to CCP-TP-093 will assemble the Sampling BDR as described in this procedure. A Sampling BDR shall include all information listed in the Attachment 2, HSG Sampling Batch Data Report Table of Contents.

If the HSG ITR review determines that any of these steps were **NOT** performed correctly, the HSG ITR will inform the HSG Drum Sampler of the corrections required. After the HSG ITR and HSG Drum Sampler concur that the data generation and reduction have been performed correctly.

Any empty space and/or blanks on the attachments to this procedure will be lined out, initialed, and dated or marked not applicable (NA).

HSG Drum Sampler

4.1.1 HSG Sampling Batch Data Report Cover Sheet

[A] On Attachment 1, HSG Sampling Batch Data Report Cover Sheet, record the following:

[A.1] HSG Sampling Batch Number

[A.2] The waste matrix code identification number for the waste containers sampled

[A.3] Waste container identification numbers (abbreviated version)

4.1.2 HSG Sampling Batch Data Report Table of Contents

[A] Ensure the following items have been included in the Sampling BDR package, and are in the correct order, **AND** record on Attachment 2:

[A.1] Attachment 1, HSG Sampling Batch Data Report Cover Sheet

[A.2] Attachment 2, HSG Sampling Batch Data Report Table of Contents

- [A.3] Attachment 3, Independent Technical Reviewer (ITR) Review Checklist
- [A.4] Chain of Custody/Canister Tag Forms (Attachment 1 from CCP-TP-093)
- [A.5] Copy of Laboratory Canister Tags
- [A.6] Cleanliness Certifications for needle assemblies as applicable to the Sampling BDR (or copies of the certifications from CCP-TP-093)
- [A.7] Sample Drum Data Forms (Attachment 2 of CCP-TP-093)
- [A.8] Copy of Sampling Port Installation Records (Attachment 1 of CCP-TP-098, *CCP Installation of the NucFil HSG Sample Port*), if applicable
- [A.9] Copy of Drum Filter Changeout Form (Attachment 1 of CCP-TP-082, *CCP Preparing and Handling Waste Drums for Headspace Gas Sampling*)
- [A.10] Shipment Request Forms, if applicable
- [A.11] 72-Hour Temperature Equilibration Plots
- [A.12] Copy of Nonconformance Reports (NCRs), if applicable

4.1.3 Forward the Sampling BDR to the HSG ITR.

HSG ITR

4.1.4 Review the Sampling BDR to the criteria and record the following on Attachment 3, Independent Technical Reviewer (ITR) Review Checklist:

- [A] Resolve any discrepancies with the HSG Drum Samplers, as necessary, before approving the Sampling BDR.
 - [A.1] **IF NO OR NA** column is checked, **THEN** explain in Comments section.

- [B] Print name, sign, and date Attachments 1 and 3 to annotate approval of the Sampling BDR.
- [C] Paginate the BDR and complete Attachment 2.
- [D] Submit completed Sampling BDR to the Facility Records Custodian.

Facility Records Custodian

- [E] Receive, process, and transmit all records in accordance with CCP-QP-008.

5.0 RECORDS

- 5.1 Records generated in procedure CCP-TP-093 and, if applicable, CCP-TP-098 and CCP-TP-082, are included as part of the compilation of the Sampling BDR, **AND** are listed in Attachment 2.
- 5.2 Records generated during the performance of this procedure are maintained as QA records in accordance with CCP-QP-008. The records are the following:

5.2.1 QA/Lifetime Records

[A] HSG Sampling BDR:

- [A.1] Attachment 1 – HSG Sampling Batch Data Report Cover Sheet
- [A.2] Attachment 2 – HSG Sampling Batch Data Report Table of Contents
- [A.3] Attachment 3 – Independent Technical Reviewer (ITR) Review Checklist
- [A.4] Chain of Custody/Canister Tag Forms (Attachment 1 of CCP-TP-093)
- [A.5] Copy of Laboratory Canister Tags
- [A.6] Cleanliness Certifications for needle assemblies as applicable to the Sampling BDR (or copies of the certifications from CCP-TP-093)
- [A.7] Sample Drum Data Forms (Attachment 2 of CCP-TP-093)
- [A.8] Copy of Sampling Port Installation Records (Attachment 1 of CCP-TP-098, *CCP Installation of the NucFil HSG Sample Port*), if applicable
- [A.9] Copy of Drum Filter Changeout Form (Attachment 1 of CCP-TP-082, *CCP Preparing and Handling Waste Drums for Headspace Gas Sampling*)
- [A.10] Shipment Request Forms, (or equivalent)

[A.11] 72-Hour Temperature Equilibration Plots

[A.12] Copies of NCRs (If applicable)

Attachment 1 – HSG Sampling Batch Data Report Cover Sheet

Page 1 of 1

Headspace Gas Sampling

HSG Sampling Batch Number: _____

Waste Matrix Code: _____

Waste Container Identification Numbers

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Comments:

HSG Independent Technical Reviewer:

Printed Name

Signature

Date

Attachment 2 – HSG Sampling Batch Data Report Table of Contents

Page 1 of 1

Section	Page No.
1. HSG Sampling Batch Data Report Cover Sheet (Attachment 1)	_____
2. HSG Sampling Batch Data Report Table of Contents (Attachment 2)	_____
3. Independent Technical Reviewer (ITR) Review Checklist (Attachment 3)	_____
Sampling Batch Data Report Forms:	
4. Chain of Custody/Canister Tag Forms (Attachment 1 from CCP-TP-093)	_____
5. Copy of Laboratory Canister Tags	_____
6. Cleanliness Certification for needle assemblies as applicable to the Sampling Batch Data Report (or copy of the certifications from CCP-TP-093)	_____
7. Sample Drum Data Form (Attachment 2 from CCP-TP-093)	_____
8. Copy of Sampling Port Installation Records (CCP-TP-098, Attachment 1), if applicable	_____
9. Copy of Drum Filter Changeout Form (Attachment 1 of CCP-TP-082), if applicable.	_____
10. Shipment Request Forms, if applicable.	_____
11. 72-Hour Temperature Equilibration Plots	_____
12. Copy of NCRs, if applicable	_____

Attachment 3 – Independent Technical Reviewer (ITR) Review Checklist

HSG Sampling Batch Number: _____

Description	YES	NO	NA	
1. Is the HSG Sampling BDR complete as specified in step 4.1.2 and are the field sampling records complete?				
Sampling Documentation	YES	NO	NA	Comments
2. Are calculations correct for the Drum Age Criteria (DAC), temperature equilibrium time, and percent complete?				
3. Did the containers meet the DAC?				
4. Did the containers meet the temperature equilibrium requirement (stored at 18°C or higher for 72-hours prior to sampling)?				
5. Do the temperature plots indicate the drums were stored at 18 °C (64.5 °F) or higher for 72-hours prior to sampling?				
5a. Are the waste stream IDs completed correctly on the Chain of Custody (COC) Form?				
Quality Control Samples				
Precision	YES	NO	NA	Comments
6. Was a Field Duplicate collected once per batch?				
Accuracy	YES	NO	NA	Comments
7. Was a Field Reference Sample collected?				
8. Was a Field Blank collected one per batch prior to sampling containers?				
Completeness	YES	NO	NA	Comments
9. Is the percentage of valid samples collected and submitted for analysis greater than or equal to 90 percent?				
Additional Checks	YES	NO	NA	Comments
10. Is the data technically reasonable based upon the technique used?				
11. Was the sampling equipment checked for leaks after sample collection?				
12. Was the data generation and reduction conducted in a technically correct manner?				
13. Was the data reported in proper units and with the correct number of significant figures?				
14. Were the samples maintained at a temperature between 0°C - 40°C?				
15. Was the equipment involved in the sampling activities in calibration (i.e., torque wrenches, ambient temperature and pressure gauges, dataloggers, ultrasonic micrometer, min/max thermometers)?				

Attachment 3 – Independent Technical Reviewer (ITR) Review Checklist (continued)

Page 2 of 2

HSG Sampling Batch Number: _____

Raw Data Collection and Management		YES	NO	NA	Comments
16.	Are there satisfactory equipment blanks, canister cleaning blanks, and needle assembly cleanliness results?				
17.	Has the data been reviewed for transcription errors?				
18.	Verify all the data is signed and dated, and the data is recorded clearly, legibly, and accurately.				
19.	No more than 20 waste containers are in the batch (excluding the QC samples).				
20.	Procedure Number: _____				Revision: _____
21.	Is the procedure number and revision correct?				
22.	All changes to original data are lined out, initialed, and dated by the individual making the change, and a justification included. (NOTE: Original data must not be obliterated or otherwise disfigured as not to be readable. Data changes shall only be made by the individual who originally collected the data or an individual authorized to change the data.)				

Independent Technical Reviewer:

Printed Name

Signature

Date