

Guidance No. ORNL-WC-003
Revision No. 0
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ENVIRONMENTAL PROTECTION

ORGANIZATION(S): WASTE CERTIFICATION	SUPERSEDES:		
TITLE: WASTE STREAM PROFILE SHEET REVIEW AND APPROVAL PROCESS			
APPROVED BY:	DATE:	APPROVED BY:	DATE:

1.0 PURPOSE

The purpose of this procedure is to provide instructions for personnel involved in the approval and annual re-evaluation of Waste Stream Profile Sheets (WSPS).

2.0 SCOPE

This procedure applies to personnel that complete the initial and annual re-evaluation of the WSPS. Those personnel are the radiological waste subject matter experts (RSME), and the Waste Certification Official (WCO).

3.0 REFERENCES

1. ORNL/TM-13288, current revision, *Waste Certification Program Plan for ORNL/UT-Battelle at Oak Ridge National Laboratory*
2. Laboratory Waste Services Job/Task Analyses and Training Needs Assessments.
3. Laboratory Waste Services Management Plan.
4. Integrated Safety Management System at Oak Ridge National Laboratory.
5. WC-406, current revision, *Guidance for Characterization of Hazardous, PCB, and Low-Level Mixed Waste.*
6. WC-SWO-507, current revision, *Radiological Characterization Plan for Solid Low-Level Waste*
7. *Guidance for Acceptable Process Knowledge (APK)*
8. DOE Order 435.1, *Radioactive Waste Management*
9. Bechtel Jacobs Company, LLC Master Waste Profiles for SLLW and TRU
10. 49 CFR Parts 171-178

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11. 40 CFR Part 62
12. 40 CFR Part 761
13. 40 CFR Part 260-280
14. NTS LLW Certification Program and Quality Assurance Plan for ORNL (ORNL/TM-2002/209)

4.0 MATERIALS, EQUIPMENT, OR SUPPLIES

1. Current revision copy of ORNL/TM-13288
2. WC-406, current revision, *Guidance for Characterization of Hazardous, PCB, and Low-Level Mixed Waste*
3. WM-SWO-507, current revision, *Radiological Characterization Plan for Solid Low-Level Waste*
4. *Guidance for Acceptable Process Knowledge*
5. BJC Master Waste Stream Profiles for SLLW and TRU Waste.
6. The completed Waste Stream Profile Sheet being reviewed.
7. The appropriate Waste Stream Profile Sheet Review Checklist (Appendix 3).
8. WSPS Annual Re-evaluation Form, if required
9. ORNL-WC-607, section Non-Hazardous/Non-PCB Solid Radioactive Process Knowledge Worksheet.

5.0 DEFINITIONS AND ACRONYMS

GI/GIE	Generator Interface/Generator Interface Equivalent
LWS	Laboratory Waste Services Organization
TRU	Transuranic Waste
SLLW	Solid Low-Level Waste
WA/WCO	Waste Acceptance Coordinator/ Waste Certification Official
WSPS	Waste Stream Profile Sheet

6.0 RESPONSIBILITIES:

6.1 WA/WCO

- 6.1.1 Technically reviews the GI/GIE WSPS submittal utilizing the appropriate WSPS review checklist (Appendix 3) to ensure the appropriate information is correct and included.
- 6.1.2 Returns the WSPS to the GI/GIE if additional information is required.

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6.1.3 Approves and signs the WSPS.

7.0 PROCEDURE-Approval for Initial WSPS Characterization, annual WSPS review, or one-time Characterization, and WSPS revision

7.1 Approval for Initial WSPS Characterization or one-time characterization

What to do:

A. WA/WCO

1. Reviews the WSPS to ensure that applicable information is addressed.
Note: This review must be consistent with the requirements of Appendix 3 and be accompanied with the “Process Knowledge Evaluation Form for Non-Hazardous/Non-PCB Solid Radioactive Waste Stream” found in ORNL-WC-607. Additionally, any analytical data to determine the WSPS radiological distribution and/or justify the non-hazardous/ non-PCB declaration must also accompany the WSPS.
2. Returns the WSPS to the GI/GIE requesting modification(s) of the lacking or insufficient attributes.
3. Works with GI/GIE to obtain concurrence or resolution of errors.
4. Ensures that all supporting characterization documentation is correct and accurate based upon information provided, signed and dated.
5. Approves the WSPS and forwards it and the completed checklist to the GI/GIE.

B. GI/GIE

1. Maintains a working copy(s) of the approved WSPS and
2. Forwards the original approved WSPS, completed checklist used to review and approve the WSPS, and specific characterization data used to verify WSPS isotopic and hazardous declarations to the LWS Document Control Center as a Quality Record.

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7.2 Procedure-Annual Re-evaluation of Waste Stream Profile Sheets.

NOTE: WSPSs must be re-evaluated annually or whenever a process change occurs. A process change is any change that has the potential to change the characterization of the waste stream generated under a WSPS.

A. WA/WCO

1. Reviews the re-submitted WSPS utilizing the “WSPS Annual Re-evaluation Review Checklist” (Appendix 4), the “Process Knowledge Evaluation Form for Non-Hazardous/Non-PCB Solid Radioactive Waste Stream” and analytical data to determine if the information contained in the WSPS is current and appropriate.
2. Requests the GI/GIE modify or add WSPS information as necessary.
3. Works with GI/GIE to obtain concurrence or resolution of errors.
4. Ensures that all supporting characterization documentation is correct, accurate, signed and dated.
5. Approves the WSPS and forwards it and the completed annual re-evaluation checklist to GI/GIE.

B. GI/GIE

1. Maintains a working copy(s) of the approved WSPS and
2. Forwards the original approved WSPS, completed checklist used to review and approve the WSPS, completed Process Knowledge Evaluation Form for Non-hazardous/Non-PCB Solid Radioactive Waste Stream and other specific characterization data used to verify WSPS isotopic and hazardous declarations to the LWS Document Control Center as an approved Quality Record.

7.3 Procedure-Evaluation of changes to Waste Stream Profile Sheets

A. GI/GIE

1. Initials and dates change.
2. Contacts WA/WCO for determination of whether change is editorial or substantive.
3. If change is substantive, assigns new revision number to WSPS and obtains WA/WCO signature.

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4. If change is editorial, obtains WA/WCO initials on change or notes WA/WCO approval by phone
 5. Maintains a working copy of the approved revised WSPS.
 6. Forwards the approved revision to the LWS document control center as an approved quality record.
- B. WA/WCO
1. Determines if a change is editorial or substantive
 2. For substantive changes, reviews the change against the “WSPS Acceptance Review Checklist” to determine if the change is acceptable, and signs revised WSPS.
 3. For editorial changes, initials and dates change, or gives authorization for change to be made.
- 8.0 Appendices
1. Waste Stream Profile Sheet
 2. Instructions to complete the Waste Stream Profile Sheet
 3. Acceptance Review Checklist of Waste Stream Profile Sheet
 4. WSPS Annual Re-evaluation Review checklist
 5. Process Knowledge Evaluation Form for Non-hazardous/Non-PCB Solid Radioactive Waste Stream
- 9.0 Quality Records Generated During the Process:
1. Approved WSPS
 2. Completed WSPS Acceptance Review Checklist of Waste Stream Profile Sheet
 3. Specific characterization data used to verify WSPS isotopic and hazardous declarations
 4. Completed Annual Re-evaluation Review Checklist
 5. Completed Process Knowledge Evaluation Form for Non-hazardous/Non-PCB Solid Radioactive Waste Stream

Appendix 3

Waste Stream Profile Sheet Acceptance Review Checklist

WSPS #

Item	Attribute	Sat	Un sat	N/A	WSPS Reviewers Comment	GI Concurrence or resolution
1	Verify that appropriate administrative controls and/or analytical data are submitted with the WSPS to justify that RCRA constituents are below regulatory levels. Note 1: Radionuclides considered to be 11 (e)(1) byproduct material under the Atomic Energy Act that are exempt from RCRA regulations are Ba-133, Cd-109, Cr-51, Pb-210, Hg-203, Se-75, and Ag-110m. Note 2: Lead components actively being used for shielding are exempt from RCRA regulations. Note 3: Decay products, Ba-137, from radioactive material are exempt from RCRA regulations.					
2	Verify that appropriate administrative controls and/or analytical data are submitted with the WSPS to justify that PCB levels are below regulatory levels.					
3	Verify that for non-regulated asbestos low-level waste the WSPS does not contain any friable asbestos, or more than 1% by weight of Cat. I nonfriable asbestos containing material (ACM) that has become friable, Cat. I nonfriable ACM that will be or has been subject to sanding, grinding, cutting, or abrading or Cat. II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder. See 40 CFR 61.141 for category definitions.					

4	Verify that appropriate administrative controls and/or analytical data are submitted with the WSPS to justify that prohibited items will not be present.					
5	Verify that if direct sampling and analysis (S&A) are used the samples taken were representative of the waste stream. These samples were collected using approved sampling protocol.					
6	Verify that if S&A is used to characterize the constituents represented by the WSPS the 90% upper confidence limit of the mean has been calculated and compared to the regulatory thresholds.					
7	Verify that when laboratory analysis is used to complete the initial WSPS characterization (radiological or hazardous) that analysis is completed by a Sample Management Office (SMO) approved and audited laboratory, except when used as in #8 below.					
8	Verify that when non SMO approved laboratories are used to characterize waste represented by the WSPS that data is used to validate process knowledge (PK).					
9	Verify that methods used to determine actual radioactivity present in the waste (based upon analytical results and process knowledge) are valid, well-documented and meet procedure requirements.					
10	Verify that any calculations to determine radionuclide distributions, conversion factors, etc., are valid, well-documented and performed correctly.					
11	Verify that bases and references are provided as applicable on the WSPS form and that applicable documents and formulation sheets are attached.					

Is this an initial WSPS review and approval? _Yes **G**

No__**G**

GI/GIE : _____

Date: _____

WA/WCO: _____

Date: _____

Appendix 4
Waste Stream Profile Sheet
Annual Re-evaluation Review Checklist

WSPS #

Item	Attribute	Sat	Un Sat	N/A	WSPS Reviewer Comments
1	Verify that an annual radiological analysis has been completed by a SMO- approved laboratory or equivalent.				
2	Verify the radiological analysis confirms the previous declared radiological distribution, or that distribution has been revised as appropriate.				
3	Verify that the radiological sample was taken by an approved sampling organization and an approved sampling plan was used in association with this sampling event				
4	Verify that an annual review confirms that prohibited items, including RCRA/TSCA, are not present in the waste (Note: this verification may be analytical data, process knowledge, appropriate administrative controls, etc.)				
5.	Verify that administrative controls used to justify the original WSPS are still appropriate.				
6	Verify that any process knowledge (PK) used to justify specific WSPS attributes for previous reviews is still accurate.				

7	Verify that, if there have been PK changes that documents specific attributes, new PK is appropriate to the WSPS.				
8	Verify if analyses for RCRA or TSCA characterization supports the non RCRA/ non TSCA status.				

WA/WCO

Date