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PART III, OPERATING UNIT GROUP 18
ADDENDUM B, WASTE ANALYSIS PLAN

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PART III, OPERATING UNIT GROUP 18
ADDENDUM B, WASTE ANALYSIS PLAN

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ACRONYMS

1		
2	ALARA	as low as reasonably achievable
3	AOAC	Association of Official Analytical Chemists
4	APHA	American Public Health Association
5	ASNT	American Society for Nondestructive Testing
6	ASTM	American Society for Testing and Materials
7	CAP	corrective action plan
8	CCW	constituent concentrations in waste
9	CCWE	constituent concentrations in waste extract
10	COLIWASA	composite liquid waste sampler
11	CFR	Code of Federal Regulations
12	CWC	Central Waste Complex
13	DOE-RL	U.S. Department of Energy, Richland Operations Office
14	DQO	data quality objectives
15	Ecology	Washington State Department of Ecology
16	EPA	U.S. Environmental Protection Agency
17	HNF	Hanford Nuclear Facility (document identifier)
18	LDR	land disposal restriction
19	LLBG TRENCH 94	Low-Level Burial Grounds
20	MSDS	material safety data sheet
21	NDA	nondestructive assay
22	NDE	nondestructive examination
23	NIOSH	National Institute for Occupational Safety and Health
24	PCB	polychlorinated biphenyl
25	PES	performance evaluation system
26	pH	negative logarithm of the hydrogen-ion concentration
27	PPE	personal protective equipment
28	QA	quality assurance
29	QC	quality control
30	RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
31	RCW	Revised Code of Washington
32	SAP	sampling and analysis plan
33	SWOC	Solid Waste Operations Complex
34	T Plant	T Plant Complex
35	TCLP	toxicity characteristic leaching procedure
36	TPA or Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
37	TSCA	<i>Toxic Substances Control Act of 1976</i>
38	TSD	treatment, storage, and/or disposal
39	UHC	underlying hazardous constituents
40	WAC	Washington Administrative Code
41	WAP	waste analysis plan
42	WRAP	Waste Receiving and Processing (Facility)

1 WRP

Waste Retrieval Project

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LOW-LEVEL BURIAL GROUNDS WASTE ANALYSIS PLAN

B.1 UNIT DESCRIPTION

The purpose of this waste analysis plan (WAP) is to document the overall waste acceptance processes that are undertaken for waste accepted for final disposal at the Low-Level Burial Ground (LLBG Trench 94). The LLBG Trench 94 Operating Unit 18 is a land-based unit located in the 200 East Area of the Hanford Facility in the northeast corner of 218-E-12B Burial Ground. Trench 94 covers a total area of approximately 49 hectares and is designed for the receipt and final disposal of decommissioned, defueled reactor compartments (RCs) from submarines and surface ships. The first defueled RC was placed in LLBG Trench 94 in April 1986. The RCs are prepared for disposal by the Puget Sound Naval Shipyard (PSNS) in Bremerton, Washington, and transported by barge to the Port of Benton to the Hanford Site. For a detailed description of LLBG TRENCH 94 refer to LLBG Trench 94, Chapter 1.0, "Part A Form", Chapter 2.0, "Facility Description and General Provisions", Addendum C, "Process Information" (DOE/RL-88-20). Activities may be performed by the LLBG Trench 94 operating organization or its delegated representatives.

B.1.1 Description of Unit Processes and Activities

The 218-E-12B Burial Ground is located in the 200 East Area of the Hanford Site. Trench 94 is a land-based unit within the 218-E-12B Burial Grounds and covers approximately 49 hectares. This Trench receives reactor compartments (RCs) from the U.S. Navy for final disposal. The RCs are prepared for disposal by the Puget Sound Naval Shipyard (PSNS) in Bremerton, Washington, and transported by barge to the Port of Benton to the Hanford Site. LLBG Trench 94 should continue to receive reactor compartments for the foreseeable future (DOE/RL-88-20).

The RCs destined for disposal in LLBG Trench 94 are considered mixed waste and meet land disposal restriction (LDR) requirements [WAC 173-303-140, 40 CFR 268, and RCW-70.105].

Disposal of mixed waste in Trench 94 requires an exemption from the liner/leachate collection system requirements. This documentation includes an exemption request for LLBG Trench 94 for the disposal of U.S. Navy defueled reactor compartments (refer to Addendum C, Process Information).

B.1.1.1 Waste Acceptance, Movement, Processing, and Management

The LLBG Trench 94 uses waste tracking processes to ensure that the waste received at the LLBG Trench 94 matches the manifest papers, to ensure that the waste is tracked through the LLBG Trench 94 to final disposition, and to maintain the information required in WAC 173-303-380. The waste tracking process provides a mechanism to track waste through a uniquely identified container. The unique identifier is a barcode (or equivalent) that will be recorded in an electronic data tracking system. This mechanism encompasses waste acceptance, movement, processing, and management of waste. The container identification number allows the LLBG Trench 94 to link to hard copy or electronic copy of records that are maintained as part of the operating record to retain information on the location, quantity, and physical and chemical characteristics of the waste.

The following sections describe the process for waste acceptance and different types of information and knowledge reviewed/required during the acceptance process. The process for management of waste is described in Addendum C.

B.1.1.1.1 Narrative Process Descriptions

Reactor compartments that meet applicable LDR requirements, as specified by WAC 173-303-140, which incorporates by reference 40 CFR 268, are disposed at the LLBG Trench 94. The LLBG Trench 94 operating record contains information necessary to meet LDR requirements (Sections B.2.1.3.2 and B.5.2).

B.1.1.1.2 Waste Acceptance Process

The waste acceptance process for LLBG Trench 94 consists of the following activities:

1 Waste Stream Approval

2 The generator provides information concerning each waste stream on a waste profile sheet. The waste
3 stream information will be reviewed against the LLBG Trench 94 waste acceptance criteria. When the
4 waste stream information is sufficient and meets the applicable acceptance criteria, the waste stream is
5 approved. For a more complete description of the waste stream approval process, refer to Section B.2.1.1.

6 Waste Shipment/Transfer Approval

7 The generator provides specific data for each waste container on the container data sheet. The container
8 data will be reviewed against the waste profile sheet data and the LLBG Trench 94 acceptance criteria
9 before being approved for shipment. For a more complete description of the waste shipment/transfer
10 approval process, refer to Section B.2.1.2.

11 Verification

12 All waste streams are subject to receipt inspection during the waste shipment acceptance process. All
13 information and data are evaluated to confirm that the waste matches the waste profile and container
14 data/information supplied by the generator.

15 **B.1.1.1.2 Types of Knowledge**

16 When collecting documentation on a waste stream or container, the LLBG Trench 94 must determine if
17 the information provided by the generator meets the definition of knowledge in WAC 173-303-040.
18 Knowledge requirements are met by sampling and analysis, and/or process knowledge.
19 Process knowledge consists of detailed information from existing published or documented waste
20 analysis data, including but not limited to the following:

- 21 • Mass balance from a controlled process that has a specified input for a specified output
- 22 • Material safety data sheets (MSDSs) on unused chemical products
- 23 • Test data from a surrogate sample
- 24 • Analytical data on the waste
- 25 • Interview information
- 26 • Logbooks
- 27 • Procurement records
- 28 • Qualified analytical data
- 29 • Processes and/or methods
- 30 • Process flow charts
- 31 • Inventory sheets

32 This information will be sufficient to quantify constituents and characteristics to safely manage in
33 compliance with LLBG Trench 94 acceptance criteria and WAC 173-303. The LLBG Trench 94
34 acceptance criteria are defined as the requirements found in this WAP and the associated LLBG Trench
35 94 dangerous waste permit application Part A.

36 **B.1.1.1.3 Description of Performance Evaluation System (PES)**

37 PES provides a periodic status of the generator's performance for waste received. PES provides a
38 mechanism for determining corrective actions, resolving waste acceptance issues, and physical screening
39 frequency adjustments when a conformance issue has been discovered for newly generated waste.

40 **B.1.1.1.3.1 Initial Physical Screening Frequency Determination**

41 This waste stream is exempt from verification due to its classified nature, and therefore it is not subject to
42 a physical screening frequency.

1 **B.1.1.1.3.2 Performance Evaluation**

2 A performance evaluation will be used to trend the generator's waste acceptance performance and will be
3 used to adjust the generator's overall physical screening frequency. This evaluation, identified as an
4 integral part of the QA program, is objective and considers the conformance issues documented during
5 the Pre-shipment Review and Verification functions. The performance evaluation will be used to review
6 the generator's overall waste performance, even though the waste is exempt from verification.

7 **B.1.1.1.3.3 Conformance Issue Resolution**

8 Conformance issues could result in a waste container that does not meet the LLBG Trench 94 waste
9 acceptance criteria. A conformance issue is any discrepancy identified during the confirmation process
10 with waste package documentation, a waste package, or a shipment. Discrepancies can be identified
11 during pre-shipment reviews of waste streams during the verification process. If a possible conformance
12 issue is identified, the following actions will be taken to resolve the issue.

- 13 • The PES compiles all information concerning the possible conformance issue(s).
- 14 • The generator will be notified and requested to supply additional knowledge that may assist in the
15 resolution of the concern(s). If the generator supplies information that resolves the concern(s)
16 identified, no further action is required.
- 17 • On determination that a conformance issue has been identified, the LLBG Trench 94 personnel
18 and the generator discuss the conformance issue and identify the appropriate course of action to
19 resolve the RC container in question.
- 20 • The LLBG Trench 94 operations management requests the generator to provide a corrective
21 action plan (CAP) that clearly states the reason for the conformance issue and describes the
22 actions to be completed to prevent recurrence

23 **B.1.1.1.3.4 Process for Reducing the Physical Screening Frequency**

24 Physical screening could be applied to the U.S. Navy based on the circumstances surrounding the
25 conformance issue. Due to the nature of the waste streams destined for disposal in Trench 94, the
26 physical screening would not be reduced.

27 **B.1.1.2 Operating Conditions**

28 The LLBG Trench 94 shall ensure that all waste management operations are conducted in accordance
29 with design and engineering requirements of waste management structures and equipment, and with all
30 equipment manufacture specifications and operating processes. Before disposal of waste, the LLBG
31 Trench 94 shall have processes in place to ensure safe management of the waste. These processes shall
32 consider actual or potential risks posed by the waste disposal equipment. The LLBG Trench 94 shall
33 conduct all waste disposals according to these processes and comply with labeling, container
34 management, and inspection requirements of WAC 173-303-630.

35 **B.1.2 Identification and Classification of Waste**

36 Only reactor compartments from the U.S. Navy will be accepted for disposal (mixed waste) in LLBG
37 Trench 94.

38 The Part A, Form 3, permit application for this TSD unit identifies dangerous waste numbers, quantities,
39 and design capacity (DOE/RL-88-21, *Hanford Facility Dangerous Waste Part A Permit Application*).

40 **B.1.2.1 Dangerous Waste Numbers, Quantities, and Design Capacity**

41 The LLBG Trench 94 Part A identifies dangerous waste numbers, quantities, and design capacity.

42 Waste will be designated pursuant to WAC 173-303 using manufacturer's product information, MSDS,
43 laboratory analysis, and reference material such as *Registry of Toxic Effects of Chemical Substances*
44 (NIOSH). Waste also will be characterized in accordance with the requirements of 40 CFR 761.

1
2 Designation for Waste Types Reprocessed at LLBG Trench 94:

Number	References
WPCB	WAC 173-303-9904
D008	WAC 173-303-090(8)

3
4 **B.2 CONFIRMATION PROCESS**

5 The confirmation process used to meet WAC 173-303-300 requirements includes completing appropriate
6 pre-shipment reviews and verification steps and/or parameters as described in this section.

7 **B.2.1 Pre-Shipment Review**

8 Pre-shipment review takes place before waste can be scheduled for transfer or shipment to LLBG Trench
9 94. The review focuses on whether the waste stream is defined accurately, meets the LLBG Trench 94
10 waste acceptance criteria, and the LDR status is determined correctly (for mixed waste subject to LDR
11 treatment standards refer to Section B.5.2). Only waste determined to be acceptable for disposal will be
12 scheduled. This determination will be based on the information provided by the generator. The
13 pre-shipment review consists of the waste stream approval and waste shipment approval process. The
14 following sections discuss the pre-shipment review process. The information obtained from the generator
15 during the pre-shipment review, at a minimum, includes all information necessary to safely dispose the
16 waste. The pre-shipment review ensures the waste has been characterized for purposes of evaluation
17 against the LLBG Trench 94 waste acceptance criteria, and that the data provided qualify as 'knowledge'
18 (Section B.2.1.3).

19 **B.2.1.1 Waste Stream Approval Process**

20 The waste stream approval process consists of reviewing waste stream information supplied on a waste
21 stream profile or other approved processes and attached analysis. At a minimum, the waste stream profile
22 or other approved processes requests the following information:

- 23 • Generator information (e.g., name, address, point-of-contact, telephone number)
- 24 • Reactor compartment identification
- 25 • Waste generating process description
- 26 • Chemical characterization information (e.g., characterization method(s), chemicals present,
27 concentration ranges)
- 28 • Designation information
- 29 • LDR information including identification of underlying hazardous constituents (UHCs) if
30 applicable
- 31 • Waste type information (e.g., physical state, absorbents used, inert materials, stabilizing agents
32 used)
- 33 • Packaging information (e.g., container type, maximum weight, size)
- 34 • Attachments could consist of container drawings, process flow information, analytical data, etc.

35 This information will be reviewed against the LLBG Trench 94 waste acceptance criteria to ensure the
36 waste is acceptable for receipt. If conformance issues are found during this review, additional
37 information will be requested.

38 On determination that the waste is acceptable for receipt and disposal at LLBG Trench 94, the LLBG
39 Trench 94 operations management assigns the waste on the profile or other approved processes to a waste
40 management path based on the PES requirements found in Sections B.1.1.1.3.

1 **B.2.1.2Waste Shipment Approval Process**

2 For each waste transfer or shipment that is a candidate for disposal in LLBG Trench 94, the generator
3 provides the following information:

- 4 • RC container identification number
- 5 • Profile number or other approved processes (except for waste transfers of previously accepted
6 waste)
- 7 • Waste description
- 8 • Generator information (e.g., name, address, point-of-contact, telephone number)
- 9 • RC Container information (e.g., type, size, weight)
- 10 • Waste numbers
- 11 • Designation as extremely hazardous waste or dangerous waste
- 12 • Waste composition
- 13 • Packaging materials and quantities.

14 The pertinent information will be entered into a solid waste information tracking system.

15 Where potential conformance issues exist in the information provided, (e.g., waste characteristics do not
16 match the waste profile information, LLBG Trench 94 waste acceptance criteria, or additional
17 constituents are expected to be present that do not appear on the documentation), the U.S. Navy will be
18 contacted (if available) by the DOE for resolution. Refer to Section 6.0 for discussion on repeat and
19 review frequency.

20 For each container, a technical review will be performed. The technical review is as follows:

- 21 • **Technical review.** The individual RC container data will be compared to the waste profile or other
22 approved process data to ensure the waste to be shipped to the LLBG Trench 94 is as described by the
23 waste profile. Every shipment will be reviewed to ensure the waste meets the LLBG Trench 94 waste
24 acceptance criteria.

25 Based on waste identification information provided, the waste designation will be reviewed to ensure
26 compliance with waste designations per WAC 173-303-070 through -100, as well as evaluating
27 whether the waste meets the LLBG Trench 94 waste acceptance criteria.

28 **B.2.1.3Knowledge Requirements**

29 The LLBG Trench 94 operations management ensures that all information used to make waste
30 management decisions will be based on the requirements found in the following sections. Information
31 determined to be 'knowledge' must meet the definition of 'knowledge' provided by WAC 173-303-040.

32 **B.2.1.3.1 General Knowledge Requirements**

33 Adequate knowledge requires (1) general waste knowledge requirements, (2) LDR waste knowledge
34 requirements, and/or (3) waste knowledge exceptions.

35 (1) **General Waste Knowledge Requirements for Designation and Waste Management.** At a
36 minimum, the generator supplies enough information for the waste to be disposed in LLBG Trench
37 94. The minimum level of knowledge consists of designation data where the constituents or
38 knowledge of the waste's generating source (in the case of wastes potentially from listed sources)
39 causing a dangerous waste number to be assigned are quantified, and that data addresses any LLBG
40 Trench 94 operational parameters necessary for proper management of the waste.

41 (2) **Waste Knowledge Requirements for LDR Compliance.** The LLBG Trench 94 portion of the
42 operating record contains all information required to document that the appropriate treatment
43 standards have been met.

1 (3) **Waste Knowledge Exceptions.** The LLBG Trench 94 is designed specifically to address disposal
2 of reactor compartments.

3 **B.2.1.3.2 Methodology to Ensure Compliance with Land Disposal Restrictions for Mixed** 4 **and Dangerous Waste**

5 The U.S. Navy, a generator of mixed and dangerous waste, is subject to LDR requirements and is
6 required to submit all information notifications and certifications described in WAC 173-303-380(1)(j),-
7 (k),-(n), and -(o).

8 **B.2.2 Verification**

9 Verification is an assessment performed by the LLBG Trench 94 to substantiate that the waste stream
10 received at the LLBG Trench 94 is the same as represented by the analysis supplied by the generator for
11 the pre-shipment review. Verification will be performed on waste received by the LLBG Trench 94.
12 Verification includes container receipt and visual inspection. Waste will not be accepted by the LLBG
13 Trench 94 for disposal until the required elements of verification have been completed, including
14 evaluation of any data obtained from verification activities. Documentation reviewed as part of
15 verification activities may include manifest, container inventory documentation, a container listing report,
16 visual verification records, and the waste profile.

17 **B.2.2.1 RC Container Receipt Inspection**

18 RC Container receipt inspection is a mandatory element of the verification process. Therefore,
19 100 percent of each shipment will be visually inspected and evaluated at the LLBG Trench 94 for
20 possible damage or leaks and complete labeling. This is to ensure that the following conditions apply to
21 the shipment:

- 22 1. The shipment is received at the LLBG Trench 94 in good condition.
- 23 2. The shipment is the waste indicated on the transfer or shipping papers.
- 24 3. The shipment has not been opened after physical screening was performed.
- 25 4. The shipment is complete.

26 When a conformance issue exists, a case-by-case determination is performed and the appropriate action
27 will be taken based on the severity of the issue. One of the following actions may be taken as appropriate,
28 in response to a conformance issue:

- 29 • Implementation of the contingency plan (DOE/RL-94-02) per the *Building Emergency Plan for*
30 *Low-Level Burial Grounds* (HNF-IP-0263-LLBG Trench 94).
- 31 • Conformance issues where additional information is needed to safely manage the waste will be
32 resolved before verification continues.
- 33 • Continuation of verification for waste with conformance issues not meeting the above criteria.

34 **B.2.2.2 Physical Screening Process**

35 Physical screening will be used as a verification element. Physical screening may be performed before
36 the waste is shipped to the LLBG Trench 94. Documentation of the physical screening shall be
37 maintained in the LLBG Trench 94 operating record.

38 **B.2.2.2.1 Physical Screening Determination**

39 There are no criteria involved for selection of RC containers for physical screening since the physical
40 screening frequency shall be fixed at 100 percent.

41 **B.2.2.2.2 Physical Screening Methods**

42 The following physical screening method complies with the requirement to verify a waste.

- 43 1. Visual inspection (opening the RC container) complies with the requirement to verify the waste.

1 Waste packaging that is witnessed by the LLBG Trench 94 or its representative (U.S. Navy contractor) at
2 a non-SWOC location is considered to have met the physical screening requirements denoted in this
3 WAP, provided that the program meets the requirements of WAC 173-303 and the witness is qualified to
4 determine the waste meets acceptance requirements. Upon closure (sealing) of the container, tamper-
5 resistant seals must be applied to ensure the integrity of the contents.

6 **B.2.2.2.3 Physical Screening Frequency**

7 The physical screening frequency for the RCs shall be 100%.

8 **B.2.2.2.4 Physical Screening Exceptions**

9 There are no physical screening exceptions. Physical screening at the U.S. Navy location consists of
10 observing the packaging of the waste.

11 **B.2.2.3 Chemical Screening Process**

12 There are no chemical screening requirements.

13 **B.2.2.4 Quality Assurance and Quality Control for Confirmation Process**

14 The following QA and QC elements will be used by the LLBG Trench 94 to ensure confirmation
15 activities provide sufficient data to provide an indication that waste received is as described in the
16 shipping documentation. Personnel performing screening activities will be properly trained and current
17 certifications will be on record. During screening activities, strict compliance with applicable industrial
18 hygiene and safety standards is mandatory.

19 **B.2.2.4.1 Physical Screening Quality Control**

20 This section describes the QC used by LLBG Trench 94 to ensure that quality data are obtained when
21 performing visual inspection. Visual inspection does not consist of the use of instrumentation or chemical
22 tests. QC objectives for visual inspection are obtained through the appropriate training.

23 **B.2.3 Waste Acceptance**

24 Initial acceptance of waste occurs only after the confirmation process described in Section 2.0 is
25 complete. Conformance issues identified during the confirmation process are documented and managed
26 in accordance with Section B.1.1.1.3.3. Conformance issues that must be corrected before waste
27 acceptance include:

- 28 • Waste does not match approved profile documentation,
- 29 • Designation discrepancy,
- 30 • Incorrect LDR paperwork,
- 31 • Packaging discrepancy,
- 32 • Manifest discrepancies as described in WAC 173-303-370(4)(a) [for offsite shipments unless
33 Permit Conditions II.P.2 can be utilized (Ecology 2004)].

34 Waste that does not meet the LLBG Trench 94 waste acceptance criteria can be accepted when that waste
35 is scheduled for discrepancy resolution. The discrepancy resolution activities will be tracked to
36 completion (refer to Section B.2.4).

37 **B.2.4 Discrepant RC Container Management**

38 When a discrepant container is identified that would affect the management of the container, the
39 following processes will be initiated:

- 40 • The generator will be requested to provide additional information to resolve the discrepancy. For
41 project waste an evaluation will be performed on available historical data. Based upon the
42 evaluation of information (hazards identified) the RC container will be managed in a safe
43 configuration.

- The RC container will be scheduled for discrepancy resolution.

B.2.5 Generated Waste

No waste is generated in Trench 94.

B.3 SELECTING WASTE ANALYSIS PARAMETERS

Physical screening parameters for verification must be chosen from those in Section B.3.1. Each physical screening result must be in agreement with the shipping documentation to determine the acceptability of the result. Conformance issues identified during the confirmation process are documented and managed in accordance with Section B.1.1.1.3.3.

B.3.1 Physical Screening Parameters

The following method is approved for use in performing physical screening.

Visual inspection (preferred method for physical screening):

Rationale: This method meets the requirement to ensure consistency between waste containers and the accompanying waste stream documentation.

Method: Visual observations are compared with the applicable profile information and the container specific information in the waste stream documentation.

Failure criteria: A container fails inspection for any of the following reasons; (a) undocumented, improperly packaged, or inadequately absorbed liquids; (b) discovery of prohibited articles or materials; (c) discovery of material not consistent with the applicable waste stream documentation ; and (d) variability greater than 25 percent by volume in listed constituents.

Appropriate QA/QC documentation is required to be maintained.

B.4 SELECTING WASTE RE-EVALUATION FREQUENCIES

The waste profile and supporting data and documentation shall be re-evaluated at least annually, or more often, if the U.S. Navy or its contractor has informed LLBG Trench 94 of a change in the waste generation process, or if waste received at the LLBG Trench 94 or the description on the shipping documentation does not match the waste profile. If the U.S. Navy or its contractor has informed LLBG Trench 94 of a change in the waste generation process, the waste re-enters the waste stream approval process described in Section B.2.1.1. LLBG Trench 94 will evaluate verification data against the waste profile to identify any waste streams for which a change in waste generation process is suspect. If a waste stream is suspect, that waste stream will re-enter the approval process described in Section B.2.1.1.

When a waste profile is re-evaluated, LLBG Trench 94 could request the U.S. Navy or its contractor to do one or more of the following:

- Verify accuracy of current waste profile;
- Supply a new waste profile;

B.5 SPECIAL WASTE ANALYSIS PROCEDURAL REQUIREMENTS

This section discusses any special process requirements for receiving mixed waste at the LLBG Trench 94.

B.5.1 Processes for Receiving Offsite Waste

The processes for receiving waste are described in Section 2.0. Mixed waste received from U.S. Navy will be managed in accordance with Section B.2.2.1.

B.5.2 Provisions for Complying With Federal and State Land Disposal Restriction Requirements

State-only and federal LDR requirements restrict the land disposal of certain types of waste subject to *Resource Conservation and Recovery Act (RCRA) of 1976* and the *Hazardous Waste Management Act of*

1 1976. Waste managed on the Hanford Facility falls within the purview of these LDRs per 40 CFR 268
2 and WAC 173-303-140. Waste constituents that are subject to LDRs are identified in 40 CFR 268.40 and
3 referenced by WAC 173-303-140. Waste must meet certain treatment standards, as specified in
4 40 CFR 268 and/or WAC 173-303-140, if the waste is to be land disposed.

5 Generators determine if LDRs apply to the mixed or dangerous waste based on knowledge or testing
6 [40 CFR 268.7(a)]. Each waste will be analyzed for those LDR constituents contained in the listed and
7 characteristic waste numbers identified by the generator, including any UHC identified by
8 40 CFR 268.2(i), if the knowledge of the U.S. Navy or its contractor is not sufficient to make a
9 determination. If the LDR waste does not meet the applicable treatment standards, the generator will
10 provide waste information with each shipment stating so in accordance with WAC 173-303-380(1)(j),-
11 (k),-(l),-(m),-(n), or -(o). If the waste meets the LDR standards, the generator must send a certification
12 that the waste meets the treatment standards.

13 **B.5.2.1 Waste Treatment**

14 Waste is treated to meet LDR as specified in 40 CFR 268 and WAC 173-303-140 with the exception of
15 mixed waste designated by the Secretary of Energy for a disposal facility pursuant to the *Land*
16 *Withdrawal Act*, as amended. Mixed waste will be treated to the applicable standards required by the
17 disposal facility or other applicable requirements.

18 **B.5.2.2 Land Disposal Restriction Certification of Treatment**

19 When LDR treatment has been completed and analytical results [if applicable per 40 CFR 268.40 and
20 WAC 173-303-140] have verified the LDR treatment is successful, certification of the LDR treatment is
21 required by the LLBG Trench 94 operating unit. The certification statement will be prepared by the unit
22 in accordance with 40 CFR 268.7b, d, and e. A copy of the certification will be placed in the LLBG
23 Trench 94 operating record.

24 **B.6 RECORDKEEPING**

25 Recordkeeping requirements applicable to this WAP are described in the *Hanford Facility RCRA Permit*,
26 Attachment 33, General Information Portion, Table 12.1 (Ecology 2004) and this WAP.

27 The LLBG Trench 94 operating unit maintains the waste stream documentation or other approved
28 processes, supporting documentation, and associated QA/QC data described in this WAP in accordance
29 with the requirements in Permit Condition II.I (Ecology 2004).

30 **B.7 REFERENCES**

- 31 ASNT, 2001, *Personnel Qualification and Certification in Nondestructive Testing*, SNT-TC-1A,
32 American Society for Nondestructive Testing, Columbus, Ohio.
- 33 Code of Federal Regulations, as revised, Office of the Federal Register National Archives and Records
34 Administration.
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