

0043518



Department of Energy
Richland Operations Office
P.O. Box 550
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APR 09 1996

96-EAP-034

Mr. Moses N. Jaraysi
200 Area Unit Supervisor
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West Fourth Avenue
Kennewick, Washington 99336

Mr. Joseph J. Witczak
Unit Supervisor
Regulatory and Technical Support
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600



Dear Messrs. Jaraysi and Witczak:

QUARTERLY NOTIFICATION OF CLASS 1 MODIFICATIONS TO THE HANFORD FACILITY
RESOURCE CONSERVATION AND RECOVERY ACT PERMIT, DANGEROUS WASTE PORTION
(QUARTER ENDING MARCH 31, 1996 — PERMIT CONDITION I.C.3.)

Condition I.C.3. of the Hanford Facility Resource Conservation and Recovery Act Permit (RCRA Permit), Dangerous Waste Portion (DW Portion), addresses Class 1 modifications as defined in Washington Administrative Code (WAC) 173-303-830(4)(a)(i)(A). This condition allows for quarterly notification of Class 1 modifications to be made to the State of Washington Department of Ecology (Ecology). These modifications are under implementation. A listing of these modifications is maintained in the Hanford Facility Operating Record. The Class 1 modifications are discussed as follows.

The Hanford Facility RCRA Permit, DW Portion, has been modified this quarter to update information in Parts II, III, and V (Enclosure). Part II Class 1 modifications include a revised Hanford Facility Contingency Plan. Part III Class 1 modifications pertain to the 305-B Storage Facility. Part V Class 1 modifications pertain to the 183-H Solar Evaporation Basin. The Class 1 modifications have been made to ensure that all activities conducted are in compliance with the Hanford Facility RCRA Permit, DW Portion.

Should Ecology determine that the enclosed modifications do not qualify as Class 1 modifications as defined in WAC 173-303-830, written authorization to continue operations is requested until the appropriate level of modification can be accomplished.

In accordance with a teleconference held with Mr. Moses Jaraysi of Ecology on March 3, 1995, a transmittal letter signed by the permittees is sufficient to authorize the submittal of the Quarterly Notification of Class 1 Modifications to the Hanford Facility RCRA Permit, DW Portion, and to meet the intent of Permit Condition I.F., Signatory Requirement.

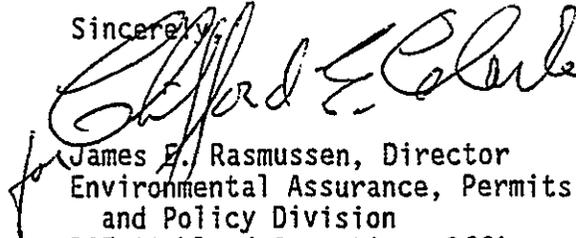
Messrs. Jaraysi and Witczak
96-EAP-034

-2-

APR 09 1996

Should you have any questions regarding this information, please contact Ellen Mattlin, U.S. Department of Energy, Richland Operations Office, at (509) 376-2385; Susan Price, Westinghouse Hanford Company, at (509) 376-1653; Harold Tilden II, Pacific Northwest National Laboratory, at (509) 376-0499; or Janet Badden, Bechtel Hanford, Inc., at 372-9033.

Sincerely,

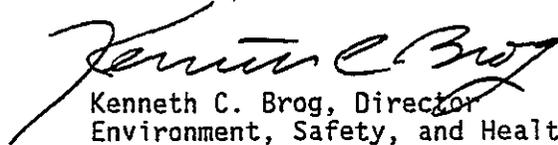


James E. Rasmussen, Director
Environmental Assurance, Permits,
and Policy Division
DOE Richland Operations Office

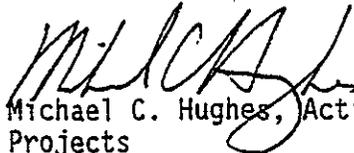
EAP:EMM



William T. Dixon, Director
Environmental Services
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Kenneth C. Brog, Director
Environment, Safety, and Health
Pacific Northwest National Laboratory



Michael C. Hughes, Acting Manager
Projects
Bechtel Hanford, Inc.

Enclosure:
Class I Modifications to
the Hanford Facility
RCRA Permit (DW Portion)
(Quarter Ending March 31, 1996)

cc w/encl:
Administrative Record, H6-08
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W. Dixon, WHC
M. Hughes, BHI
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RECEIPT

Moses Jaraysi
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 Nuclear Waste Program
 State of Washington
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 1315 West Fourth Avenue
 Kennewick, Washington 99336

I have received the following document 96-EAP-034:

QUARTERLY NOTIFICATION OF CLASS 1 MODIFICATIONS TO THE HANFORD FACILITY
 RESOURCE CONSERVATION AND RECOVERY ACT PERMIT, DANGEROUS WASTE PORTION
 (QUARTER ENDING MARCH 31, 1996 — PERMIT CONDITION I.C.3.)

Shauna Williamson

April 9, 96

Signature

Date

FROM (COMPANY NAME) WESTINGHOUSE HANFORD		ORIGIN PSC	AIRBILL NUMBER 546 222723
ADDRESS 740 STEVENS DR		CUSTOMER AIRBORNE EXPRESS ACCOUNT NUMBERS 82430330	
CITY RICHLAND	STATE WA	ZIP CODE (REQUIRED) 99352	SENDER 82430330
SENT BY (NAME/DEPT.) WHC (SA Thompson/RCRA Permit) 509/372-0958		PHONE 509/372-0958	RECEIVER
TO (COMPANY NAME) ECOLOGY		METHOD OF PAYMENT (ASSUMED SENDER UNLESS OTHERWISE NOTED)	
ADDRESS 300 Desmond Drive		<input type="checkbox"/> BILL SENDER <input type="checkbox"/> BILL RECEIVER	
CITY Lacey	STATE WA	ZIP CODE (REQUIRED) 98503	Airborne Account No. 1013610
ATTN: (NAME/DEPT.) JJ Witczak (360) 407-7132		PHONE 360/407-7132	Check No. Amount
CLASS 1 Quarterly HF RCRA 3/31/96		<input type="checkbox"/> PAID IN ADVANCE	
DECLARED VALUE OR FULL INSURANCE \$		BILLING REFERENCE (WILL APPEAR ON INVOICE) XX R1037	
SENDER SIGNATURE	DATE	AIRBORNE SIGNATURE	DATE TIME ROUTE
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**QUARTERLY NOTIFICATION OF CLASS 1 MODIFICATIONS TO
THE HANFORD FACILITY RCRA PERMIT,
DANGEROUS WASTE PORTION
(Quarter Ending March 31, 1996)**

Page 1 of 15

**PART II CLASS 1 MODIFICATIONS:
HANFORD FACILITY CONTINGENCY PLAN**

Note: Because Revision 0 has no line numbers, the following line numbers refer to Revision 1 contained in this submittal.

Remove Attachment 4, *Hanford Facility Contingency Plan, Rev. 0*, of the Hanford Facility Resource Conservation and Recovery Act Permit (RCRA Permit) and replace it with the *Hanford Facility Contingency Plan, Rev. 1*.

Reason: Minor modifications were made to reflect the reduced operating hours of the Occurrence Notification Center, the role of the Patrol Operations Center, and to include the use of cellular telephones for summoning emergency assistance onsite. Also, editorial changes were made to improve consistency. There are 23 minor changes throughout this document.

1. Page xv [line 13]: Changed "Emergency Control Centers" to "Emergency Centers".
2. Pages 2-1 [line 4], 3-1 [line 4], and 4-1 [line 4]: Added acronym "(Plan)" for Hanford Facility Contingency Plan.
3. Pages 3-1 [lines 18-19 and 32] and 5-1 [lines 25-26 and 44-45]: Added single point-of-contact onsite cellular telephone number as 811.
4. Pages 3-1 [lines 32-33], 5-1 [line 48], and 7-2 [lines 12-13]: Changed the current name of the Pacific Northwest Laboratory (PNL) to "Pacific Northwest National Laboratory".
5. Page 3-1 [line 26]: Added "facility or" before "TSD unit or through the single point-of-contact".
6. Page 4-1 [line 27]: Added "and/" before "or mixed waste".
7. Page 5-1 [line 4]: Deleted "specific".
8. Page 5-1 [line 14]: Replaced "assure" with "ensure".
9. Page 5-2 [line 30]: Deleted "200, 300, or 400".
10. Page 5-2 [line 36]: Deleted "employees" and replace with "persons".
11. Page 5-2 [line 51]: Added "persons" to the end of the line.
12. Page 5-3 [line 8]: Replaced DOE Order "5000.3B" with "0 232.1".
13. Page 5-4 [line 21]: Replaced "ONC" with "Patrol Operations Center (POC)".
14. Page 5-4 [line 46]: Added "must go inside" to clarify response to take cover alarm.
15. Pages 5-10 [line 17] and 7-1 [line 23]: Replaced "Hanford Patrol Operations Center" with "POC".
16. Page 5-10 [line 34]: Added "and/" before "or mixed waste quantities . . .".
17. Page 5-11 [line 2]: Deleted "at the fire station" before "24 hours per day".

**PART II CLASS 1 MODIFICATIONS:
HANFORD FACILITY CONTINGENCY PLAN (cont.)**

18. Page 5-12 [line 10]: Added "and/or mixed waste" and deleted "or dangerous waste constituents".
19. Page 7-4 [line 9]: Deleted "(U.S. Department of Transportation 17E tight head and U.S. Department of Transportation 17H open head)".
20. Page 9-2 [line 12]: Added "0 232.1" to specify which DOE Order.
21. Page 10-1 [line 12]: Added bullet "• POC".
22. Page 11-1 [line 4]: Replaced DOE Order "5000.3B" with "0 232.1".
23. Page 11-1 [line 7]: Replaced DOE Order "5500.1B" with "0 151.1" and added "*Comprehensive*" to the DOE Order title.

**PART II CLASS 1 MODIFICATIONS:
HANFORD FACILITY CONTINGENCY PLAN (cont.)**

Replacement for Attachment 4
of the RCRA Permit

Hanford Facility Contingency Plan, Rev. 1

HANFORD FACILITY CONTINGENCY PLAN
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1.0 GENERAL INFORMATION

1
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4 The Hanford Facility is defined as a single *Resource Conservation and*
5 *Recovery Act (RCRA) of 1976* facility, identified by the EPA/State
6 Identification Number WA7890008967, that consists of over 60 treatment,
7 storage, and/or disposal (TSD) units conducting dangerous waste management
8 activities. The Hanford Facility consists of the contiguous portion of the
9 Hanford Site that contains these TSD units and, for the purposes of RCRA, is
10 owned and operated by the U.S. Department of Energy (excluding lands north and
11 east of the Columbia River, river islands, lands owned or used by the
12 Bonneville Power Administration, lands leased to the Washington Public Power
13 Supply System, and lands owned by or leased to the state of Washington).

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2.0 PURPOSE

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The Hanford Facility Contingency Plan (Plan), together with each TSD unit-specific contingency plan, meets the WAC 173-303 requirements for a contingency plan. This plan includes descriptions of responses to a nonradiological hazardous materials spill or release at Hanford Facility locations not covered by TSD unit-specific contingency plans or building emergency plans. This plan includes descriptions of responses for spills or releases as a result of transportation activities, movement of materials, packaging, and storage of hazardous materials.

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3.0 EMERGENCY COORDINATORS

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4 The overall responsibility for implementation of this Plan lies with the
5 building emergency director (BED) or their designated alternates. The BED has
6 the responsibilities of the Emergency Coordinator as discussed in
7 WAC 173-303-360 and is also the Event Commander for facility related events.
8 A list of all BEDs and alternates is maintained at various locations
9 throughout the Hanford Facility, and these individuals can be reached 24 hours
10 per day. The BEDs have the authority to commit all necessary resources (both
11 equipment and personnel) to respond to any emergency. Additional
12 responsibilities have been delegated to the Hanford Fire Department personnel
13 who are authorized to act for the BED when the BED is absent. These Hanford
14 Fire Department personnel have the authority to commit all necessary resources
15 (both equipment and personnel) to respond to any emergency.
16

17 Response by a BED (or an Emergency Coordinator) usually is obtained
18 through the single point-of-contact* by dialing telephone number 911 (onsite
19 cellular 811) or 373-3800 or 375-2400. The single point-of-contact has been
20 designated as the contact point to mobilize a response to any Hanford Facility
21 emergency. The single point-of-contact is available at all times and has the
22 responsibility to initiate notifications to the BED or alternate to begin
23 responses to emergencies, as well as to dispatch emergency responders (Hanford
24 Fire Department, Hanford Patrol, or ambulance services). All emergency
25 notifications to the BED, building managers, etc., can be made directly from
26 the affected facility or TSD unit or through the single point-of-contact.
27

28 The unit-specific DOE-RL technical contact responds to regulatory agency
29 inquiries regarding this Plan. The unit-specific DOE-RL technical contact is
30 accessed by contacting 373-3800 or 375-2400.

31 *The single point-of-contact is the Hanford Patrol Operations Center
32 (911, 811 onsite cellular, or 373-3800) and/or the Pacific Northwest National
33 Laboratory Security Center (375-2400).

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4.0 IMPLEMENTATION OF THE CONTINGENCY PLAN

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4 This Plan describes parallel decision flow paths for evaluating and
5 classifying an incident. DOE orders and WAC 173-303-360 require incident
6 classification. The definition of emergencies according to DOE orders differs
7 from the definition contained in WAC 173-303. Because of this, a dual
8 incident classification decision path is necessary to meet both DOE order and
9 WAC 173-303 requirements. Incident classification according to DOE orders is
10 described in this Plan for completeness only. DOE orders will not be used to
11 evaluate whether an incident requires implementation of a contingency plan.
12

13 Implementation of a contingency plan will occur when a BED has determined
14 that a release, fire, or explosion has occurred at the facility which could
15 threaten human health or the environment. A release is defined in
16 WAC 173-303-040 within the definition of "discharge". An incident requiring
17 evacuation of personnel or the summoning of emergency response units will not
18 necessarily indicate that a contingency plan has been implemented.
19

20 Any incident that poses a potential threat to human health or the
21 environment discovered by TSD unit personnel requires immediate notification
22 of the BED and the single point-of-contact who then notifies the Hanford Fire
23 Department. Personnel may respond, in accordance with the procedures
24 described in TSD unit-specific contingency plans, before the arrival of the
25 BED, as long as such response is within their level of training. The Hanford
26 Fire Department is contacted through the single point-of-contact on all
7 incidents involving dangerous materials and/or mixed waste.

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5.0 INCIDENT RESPONSE

Incident response procedures have been established for each TSD unit. The initial response to any emergency will be to immediately protect the health and safety of persons in the immediate area. Identification of released material is essential to determine appropriate protective actions. Containment, treatment, and disposal assessment will be the secondary responses.

The following sections describe actions for personnel for several different types of incidents, including a generic response, that might occur on the Hanford Facility. Regardless of how an incident is classified, minimum on-site notification requirements exist to ensure the appropriate organizations are contacted and that the incident is correctly classified.

5.1 INCIDENT GENERIC RESPONSES

5.1.1 Discoverer

1. The discoverer makes immediate notifications immediately to potentially affected personnel (including the BED for a TSD unit incident, if onsite) of the incident.
2. Immediately notifies the single point-of-contact (911*, 811 onsite cellular, or 375-2400) and provides all known information, if the information can be obtained without jeopardizing personnel safety, including the following:
 - Name(s) of chemical(s) involved and amount(s) spilled, on fire, or otherwise involved, or threatened by, the incident
 - Name and callback telephone number of person reporting the incident
 - Location of incident (identify as closely as possible)
 - Time incident began or was discovered
 - Where the materials involved are going or might go, such as into secondary containment, under doors, through air ducts, etc.

*The DOE-RL and other contractor personnel are trained to notify the Hanford Emergency number (911 from onsite telephones, 811 from onsite cellular telephones, and 375-2400 from 375 prefix telephones) for immediate dispatch of the Hanford Fire Department for fire, ambulance services, hazardous materials/mixed waste response, and for the Hanford Patrol. Hanford Patrol, who operates the 911 number, and Pacific Northwest National Laboratory Security, who operates the 375-2400 number, notify other organizations and contractors to ensure appropriate actions are taken.

- Source and cause, if known, of spill or discharge
- Name(s) of anyone contaminated or injured in connection with the incident
- Any corrective actions in progress
- Anyone else who the discoverer has contacted.

5.1.2 Single Point-of-Contact

1. Initiates notification to the BED, or one of the alternates if the BED cannot be reached immediately, to arrange immediate response to the incident
2. Requests immediate response from the Hanford Fire Department for fire, ambulance service, and/or hazardous material/mixed waste incidents
3. Contacts the Hanford Patrol for traffic control and security measures, as needed, based on the report of the discoverer
4. Initiates notification to appropriate management of the spill or release incident
5. Supports the BED in providing further notification and coordination of response activities if needed
6. Activates or requests activation of the appropriate alarm signals (as required) for the affected building or affected areas, when the BED determines that protective actions are necessary
7. Notifies the emergency response organizations
8. Prompts activation of the affected area emergency control centers (ECC) if requested by the BED or other authorized persons
9. Prompts activation of the DOE-RL Emergency Management Team (EMT), if necessary, to recommend protective actions for areas outside the Hanford Facility.

5.1.3 Building Emergency Director (or alternate)

1. Sounds appropriate alarms to notify occupants
2. Notifies the single point-of-contact if additional support or an area evacuation is needed
3. Activates the building emergency response organization as necessary
4. Arranges for care of any injured persons

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5.1.4 Identification of Hazardous Materials and Dangerous Waste and Assessment of Hazards

The BED ensures that trained personnel identify the character, source, amount, and area extent of the hazardous material or dangerous waste involved in the incident to the extent possible. Identification of waste can be made by visual inspection of involved containers; by sampling; by reference to inventory records, shipping manifests, or waste tracking forms; or by consulting with TSD unit operations personnel. Samples of materials involved in an emergency might be taken by qualified personnel and analyzed as appropriate.

Concurrently, the hazards that the incident poses to human health and the environment must also be assessed. The assessment must take into consideration the direct, indirect, immediate, and long-term effects of the incident. In addition to the information sources identified above, the hazard assessment should include other sources such as Material Safety Data Sheet toxicity and health information, and results from any personnel monitoring examinations conducted at medical facilities. These are the types of tools which will aid in ascertaining the extent in which human health and the environment were threatened.

Upon activation, the ECC is available to assist the BED if needed. Possible assistance could include determining the extent of an emergency, identifying the hazards associated with the materials or waste involved in the incident, assisting in response to the incident, or coordinating the mobilization of special equipment or supplies to the incident site.

If assessment of all available information does not yield a positive assessment of the danger posed by the incident, a worst-case condition will be presumed and appropriate protective actions will be initiated. The BED is responsible to initiate any protective actions.

5.1.5 Incident Classification

After the assessment has been completed in Section 5.1.4, the incident should be ready for classification. If not, the BED shall take whatever means are necessary to obtain the information to complete the classification. The BED must classify the incident according to the DOE order and contingency plan implementation criteria in this section.

1 1. DOE Order Incident Classification
2

3 There are three categories of incidents on the Hanford Facility:
4 offnormal event, unusual occurrence, and emergency as described in
5 DOE Orders. Incidents are categorized based on degradation of
6 TSD-unit safety systems and impact to other TSD units, employees,
7 structures, public safety, and the environment. Incidents
8 categorized as offnormal events and unusual occurrences are
9 communicated as described in Section 9.0. Incidents categorized as
10 an emergency are further classified into one of three emergency
11 classes as required by DOE Orders. Incidents categorized as
12 emergencies will prompt automatic activation of the appropriate
13 ECCs.
14

15 2. WAC 173-303 Incident Classification
16

17 Based upon the evaluation and hazard assessment in Section 5.1.4,
18 the BED may determine that the incident is classified as a release,
19 fire, or explosion that threatens human health or the environment.
20 When this occurs, the BED must report his assessment to the ECC, if
21 activated, or to the Patrol Operations Center (POC) for
22 dissemination to local authorities for evacuation of local areas, if
23 applicable. In addition, the BED, with assistance from the ONC and
24 environmental compliance/protection personnel, must immediately
25 (within 2 hours) notify Ecology, and either the government official
26 designated as the on-scene coordinator, or the National Response
27 Center. The information included in the assessment report to these
28 agencies is described in Section 9.0.
29

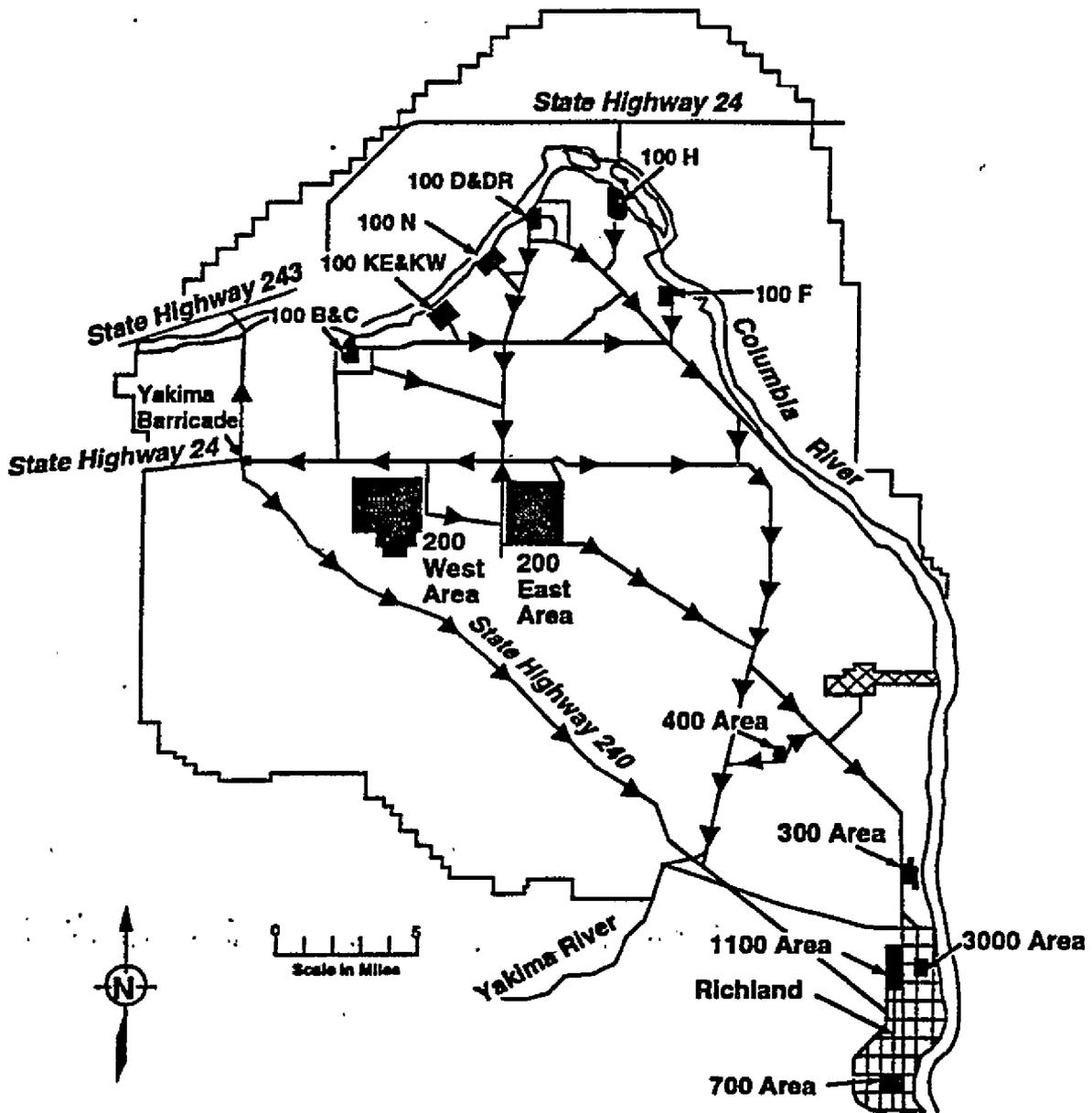
30 5.1.6 Protective Actions
31

- 32 1. Evacuation (Signal: Steady siren). Each TSD unit has a building
33 emergency procedure that includes an evacuation plan identifying
34 emergency signals and staging area location. In the event a
35 Facility-wide evacuation is required, TSD unit personnel evacuate to
36 their designated staging area, are accounted for, and receive
37 directions on routes to take to safely evacuate the area. If the
38 primary route is blocked by the emergency, personnel use alternate
39 evacuation routes determined at the time of the event.
40

41 Evacuation routes for the Hanford Facility are shown on Figure 1.
42 Specific routes will be determined at the time of the event based on
43 event magnitude, location, and meteorology.
44

- 45 2. Take Cover (Signal: Wavering siren). In the event of a take cover
46 alarm, personnel must go inside or remain inside, close all exterior
47 doors, and turn off all intake ventilation. Personnel secure all
48 waste and classified documents.

1



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Figure 1. Hanford Facility Evacuation Routes.

5.2 RESPONSE TO MINOR SPILLS OR RELEASES

(Signal: None) The TSD unit personnel generally perform immediate cleanup of minor spills or releases using sorbents and emergency equipment. Personnel detecting such spills or releases contact the single point-of-contact to notify of the detection of such release and to ensure notification of the BED and the Hanford Fire Department. Responses to spills or releases occurring within individual storage cells, structures, modules, etc., during routine handling and storage are contained in TSD unit-specific contingency plans. Response to minor spills generally does not require the implementation of the contingency plan.

A spill or release of hazardous material or dangerous waste is considered 'minor' if all of the following are true:

- The spill does not threaten the health and safety of occupants of the building, i.e., an evacuation is not necessary
- The spill is small in size
- The composition of the material or waste is known or can be quickly determined from label, manifest, material safety data sheets, or disposal request information.

If one or more of the foregoing conditions are not met, responses are performed as outlined in Section 5.3. Notification of the spill takes place as outlined in Section 5.1.

5.3 MAJOR DANGEROUS WASTE AND/OR MIXED WASTE SPILL OR MATERIAL RELEASE

(Signal: None) The following actions are taken in the event of a major release.

5.3.1 Discoverer

The discoverer performs the following:

1. If within the TSD unit, notify personnel (including BED) of discovery of spill or release by sounding the appropriate alarm, using the public address (PA) system, etc.
2. Initiate notifications to the Hanford Fire Department (and BED if necessary) by contacting the single-point contact and provide all known information, in accordance with Section 5.1.
3. Takes action to contain and/or to stop the spill if all of the following are true:
 - The identity of the substance(s) involved is known

- 1 • Appropriate protective equipment and control/cleanup supplies
- 2 are readily available
- 3
- 4 • Discoverer can safely perform the action(s) without assistance,
- 5 or assistance is readily available from other trained TSD unit
- 6 personnel.
- 7

8 If any of the above conditions are not met, or there is any doubt, the
9 discoverer evacuates the area and remains outside, upwind of the TSD unit,
10 pending the arrival of the BED. The discoverer remains available for
11 consultation with the BED, Hanford Fire Department, or other emergency
12 response personnel.
13

14 5.3.2 Single Point-of-Contact

15 The single point-of-contact performs the following:

- 16 1. Notifies the Hanford Fire Department and relays information received
- 17 from the event scene
- 18
- 19 2. Initiates notification to the BED if not at the TSD unit
- 20
- 21
- 22 3. Remains available to support further notification and response
- 23 activities if needed.
- 24
- 25
- 26
- 27

28 5.3.3 Building Emergency Director

29 The BED performs or arranges for the following:

- 30 1. Proceeds directly to the TSD unit to coordinate further activity and
- 31 to establish a command post at a safe location
- 32
- 33 2. Obtains all available information pertaining to the incident and
- 34 determines if the incident requires implementation of the
- 35 contingency plan
- 36
- 37 3. Determines need for assistance from agencies listed in Section 8.0
- 38 and arranges for their mobilization and response through the single
- 39 point-of-contact
- 40
- 41 4. Initiates the appropriate alarm, if building or area evacuation is
- 42 necessary,
- 43
- 44 5. Arranges for care of any injured persons
- 45
- 46 6. Requests activation of the affected area ECC via the single-point of
- 47 contact, if a threat to surrounding buildings or structures exists
- 48
- 49 7. Provides for event notification in accordance with Section 5.1
- 50
- 51

- 1 8. Maintains access control at the incident site by keeping
2 unauthorized personnel and vehicles away from the area. Security
3 personnel can be used to assist in site control if control of the
4 boundary is difficult (e.g., repeated incursions). In determining
5 controlled access areas, considers environmental factors such as
6 wind velocity and direction
7
- 8 9. Arranges for proper remediation of the incident after evaluation.
9
- 10 10. Remains available for fire, patrol, and other authorities on the
11 scene and provides all required information
12
- 13 11. Enlists the assistance of alternate BED(s), if around-the-clock work
14 is anticipated
15
- 16 12. Refers media inquiries to the Media Relations/Communications offices
17 of the contractors or DOE-RL.
18
- 19 13. Ensures the use of proper protective equipment, remedial techniques
20 (including ignition source control for flammable spills), and
21 decontamination procedures by all involved personnel, if remediation
22 is performed by TSD unit personnel. Areas of expertise are
23 available in determining necessary equipment or procedures
24
- 25 14. Remains at the scene to oversee activities and to provide
26 information, if remediation is performed by the Hanford Fire
27 Department Hazardous Materials Response Team or other response teams
28
- 29 15. Ensures proper containerization, packaging, and labeling of
30 recovered spill materials and overpacked containers
31
- 32 16. Ensures decontamination (or restocking) and restoration of emergency
33 equipment used in the spill remediation before resuming TSD unit
34 operations
35
- 36 17. Provides required reports after the incident in accordance with
37 Section 9.0.
38
39

40 5.3.4 Hanford Fire Department Response 41 to Major or Unknown Spills 42

43 The Hanford Fire Department response to unknown spills is as follows.
44

- 45 1. Initial Hanford Fire Department response includes one engine
46 company, one hazardous materials unit, one ambulance unit, and one
47 battalion commander.
48
- 49 2. The Hanford Fire Department, as the Hazardous Materials Incident
50 Command Agency, establishes command and control of the situation.
51 The first arriving unit assumes incident command and determines
52 location of the command post, and evacuates personnel from a red

1 zone consisting of a minimum of 100 feet (30.5 meters) in all
 2 directions. The red zone could be adjusted as deemed necessary by
 3 the hazardous materials team leader.

- 4
 5 3. The Incident Commander evacuates all personnel within the red zone
 6 area.
 7
 8 4. The hazardous materials team leader establishes yellow zone and
 9 decontamination corridor.
 10
 11 5. The hazardous materials team leader assigns fully trained and
 12 qualified team members specific tasks i.e.,
 13
 14 Team Safety Officer Decontamination Team Leader
 15 Entry Team Resource Leader
 16 Backup Team Science Leader
 17
 18 6. The hazardous materials team safety leader controls and directs the
 19 medical evaluations for personnel working in the red and the yellow
 20 zones.
 21
 22 7. Team members performing entry, back up, and decontamination, suit up
 23 in level "A" protection.
 24
 25 8. Entry team members make entry to obtain samples of unknown hazardous
 26 material, and observe for other pertinent information.
 27
 28 9. Entry team collects sample and exits area going through
 29 decontamination by decontamination team.
 30
 31 10. The hazardous materials sample is analyzed on scene by hazardous
 32 materials team personnel using available testing equipment. This
 33 testing is to determine hazard group classification i.e., poison,
 34 acid, flammable, oxidizer, etc.
 35
 36 11. Once hazard classification has been identified, hazardous materials
 37 entry team makes re-entry to stabilize and control hazardous
 38 material to the point that the emergency no longer exists.
 39
 40 12. The entry team exits the area going through decontamination by
 41 decontamination team.
 42
 43 13. The spill site is turned over to cleanup personnel for cleanup and
 44 disposal.
 45
 46 14. The hazardous materials response command is dissolved; all units
 47 return to stations.
 48
 49 15. A critique of the hazardous materials incident is held with team
 50 members as soon as possible after Hanford Fire Department units have
 51 returned to stations.

5.4 RESPONSE TO FIRE

(Signal: Gong) In the event of a fire, the discoverer activates a fire alarm and calls the single point-of-contact. Automatic initiation of a fire alarm (through the smoke detectors and sprinkler systems) also is possible. The TSD unit personnel are trained in the use of portable fire extinguishers for incipient fires. Personnel use their best judgment whether to fight a fire or to evacuate. Under no circumstances do personnel remain to fight a fire if unusual hazards exist.

The following actions are taken in the event of a fire or explosion.

1. On actuation of the fire alarm, personnel shut down equipment, secure waste (especially mixed waste), and lock up classified documents (or carry the documents with them), ONLY if time permits. The alarm automatically signals the Hanford Fire Department and the POC.
2. Personnel leave the area/building by the nearest safe exit and proceed to the designated staging area for accounting.*
3. The single point-of-contact is notified immediately, who in turn initiates notifications to the BED (or alternate) if necessary.
4. The BED proceeds directly to the scene (if not already there).
5. The BED obtains all necessary information pertaining to the incident.
6. Depending on the severity of the event, the BED (or lead Facility Manager) contacts the Occurrence Notification Center and requests additional notifications to offsite agencies (e.g., Ecology, local counties, and DOE-Headquarters), informing them as to the extent of the emergency (including estimates of dangerous waste and/or mixed waste quantities released to the environment) and any actions necessary to protect nearby buildings and/or structures.
7. Depending on severity, the BED requests activation of the affected area ECC to establish organizations to provide assistance from the DOE-RL, other Hanford Facility contractors, and outside agencies.
8. The Hanford Patrol establishes roadblocks within the area to route traffic away from the emergency scene.
9. Hanford Fire Department medical personnel remove injured personnel to a safe location, apply first aid, and prepare the injured for transport to medical aid stations or to local hospitals in accordance with established memoranda of understanding (MOUs)

*During a fire alarm condition, all building occupants are required to evacuate unless otherwise stated in their specific building emergency plan.

(copies of the MOUs are maintained by the Hanford Fire Department).
Medical personnel are on standby 24 hours per day.

10. Hanford Fire Department fire fighters extinguish the fire.
11. All emergency equipment is cleaned and fit for its intended use following completion of cleanup procedures.

5.5 UNUSUAL, IRRITATING, OR STRONG ODORS

(Signal: None) If an unusual, irritating, or strong odor is detected, and the discoverer has reason to believe that the odor might be the result of an uncontrolled release of a toxic or dangerous material, the discoverer performs the following:

- Activates the building evacuation alarm or fire alarm system to evacuate the building
- Notifies the single point-of-contact, the building manager, and cognizant line management.

If the discoverer knows of the source and scope of the release, this information is reported quickly to the BED. Measures are taken to contain the release and ventilate the area, if safe and advisable to do so.

If an unusual odor is detected within the building or structure, and the source of the odor is unknown, the BED considers additional protective actions.

5.6 RESPONSE TO CONTAINER SPILLS OR LEAKS

In addition to the foregoing Plan provisions, the following specific actions could be taken for leaks or spills from containers at TSD units. These actions may be taken only by appropriately trained personnel.

- Container leaks are stopped as soon as possible using appropriate procedures. Appropriate personnel protective equipment is used.
- If it is inadvisable to approach the container, absorbent materials are used, and access is restricted pending notification of the BED and implementation of the Plan.
- Contents of leaking containers could be transferred to appropriate nonleaking containers. Transfer procedures for fire safety are followed for ignitable or reactive waste (e.g., use of nonsparking tools, bonding and grounding of containers, isolation of ignition sources, and use of explosion-proof electrical equipment).
- Overpacked containers are marked and labeled in the same manner as the contents. All containers of spill debris, recovered product, etc., are managed in the same manner as waste containers received

1 from outside the TSD unit. Overpacks in use at the TSD unit are
2 marked with information pertaining to their contents and noted as to
3 whether the container inside the overpack is leaking or is in good
4 condition.
5
6

7 **5.7 RESPONSE TO TRANSPORTATION AND/OR PACKAGING INCIDENTS**

8
9 This section describes the actions taken in the event of an unplanned
10 sudden or nonsudden release of dangerous waste and/or mixed waste to air,
11 soil, surface water, or groundwater during onsite transportation activities,
12 or at locations not covered by a unit-specific contingency plan. This
13 includes spills or releases as a result of transportation activities, movement
14 of materials, packaging, and storage of hazardous materials.
15

16 The following steps are performed by those individuals responding to a
17 hazardous materials transportation incident at the Hanford Facility.
18
19

20 **5.7.1 Initial Responder Actions**

21
22 The initial responder or discoverer of a hazardous materials spill or
23 release resulting from onsite transportation activities initiates the
24 following response actions, if the actions can be performed without
25 jeopardizing personnel safety, as appropriate.
26

- 27 • Determines the nature of incident
 - 28 - Personnel injuries
 - 29 - Hazardous material spill with fire
 - 30 - Hazardous material spill without fire.
- 31 • Assists injured personnel.
- 32
- 33 • Initiates notifications to the single point-of-contact by any means
34 available (telephone, radio, passing motorist, etc.) to request
35 assistance from the Hanford Fire Department (Emergency Coordinator
36 for these type of events), Hanford Patrol and medical personnel.
37
- 38 • Remains in a safe location and attempt to isolate the area to
39 prevent inadvertent personnel access.
40
41
42
43

44 **5.7.2 Event Commander--Outside Treatment, 45 Storage, and/or Disposal Units**

46
47 The Hanford Fire Department will establish and maintain incident command
48 on arrival at the emergency event. The Incident Commander will perform or
49 coordinate the event command actions for locations not controlled by a BED.
50

51 The Event Commander will ensure that the cause of the incident and its
52 possible effects are investigated and evaluated as soon as possible. The
53 Event Commander, with input from the Incident Commander, assesses possible

1 hazards to human health and the environment (considering direct, indirect,
2 immediate, and long-term effects) that might result from the release, fire, or
3 explosion and takes the following actions as appropriate:
4

- 5 • Isolate event from employees:
 - 6 - Cordon off access
 - 7 - Place apparatus to block roadways
 - 8 - Use Hanford Patrol roadblocks
 - 9 - Use TSD unit/vehicle PA systems
 - 10 - Sound appropriate alarms.
- 11 • Determine type of hazardous materials involved:
 - 12 - Occupancy/location
 - 13 - Container shapes
 - 14 - Markings and colors
 - 15 - Placards and labels
 - 16 - Shipping papers
 - 17 - Consult reference materials (U.S. Department of Transportation,
18 National Institute of Occupational Safety and Health *Pocket*
19 *Guide to Chemical Hazards*)
 - 20 - Unit managers/employees.
- 21 • Notify the appropriate manager of the incident and ensure that the
22 incident is reported properly in accordance with Section 9.0 of this
23 Plan
- 24 • If the TSD unit stops operations in response to a fire, an
25 explosion, or a release, the BED will monitor for leaks, pressure
26 buildup, gas generation, or ruptures in valves, pipes, or other
27 equipment, wherever this is appropriate
- 28 • Coordinate with emergency response organizations to establish a
29 command post, upwind and uphill of the incident:
 - 30 - Ensure command post is located so as to minimize the need for
31 relocation
 - 32 - Direct incoming response vehicles to a safe staging area
 - 33 - Coordinate tasks with other responders
 - 34 - Activate required emergency centers
 - 35 - Dispatch radiological and nonradiological field teams to help
36 define and locate the plume.

- 1 • Ensure that all personnel who enter the area are equipped with
2 proper protective clothing and respiratory protection
3
4 - Rescue should only be attempted when the risks have been
5 evaluated and are considered acceptable.
6
7 - If the risks are unknown, or considered unacceptable, wait for
8 the Hazardous Materials Response Team.
9

10 Rescue/evacuation can be performed by trained personnel, other than
11 the Hanford Fire Department, if the victim's location could present
12 an immediate life-threatening situation or further injuries to the
13 victim.
14

- 15 • Complete other actions necessary to effect control of the scene,
16 including but not limited to the following:
17

18 NOTE: The following steps normally are conducted and/or directed by
19 a Hanford Fire Department Hazardous Materials Response Team leader.
20

- 21 - Secure the scene
22 - Use absorbents
23 - Use covering (blankets, polyethylene, etc.)
24 - Overpack
25 - Plug/patch
26 - Transfer to new container
27 - Venting/vapor suppression.
28
- 29 • Initiate other measures as needed, including but not limited to, the
30 following:
31
32 - Place hose streams and unmanned monitors
33 - Establish confinement dikes to prevent run-off
34 - Perform first aid.
35
- 36 • Obtain additional information:
37
38 - Who is operating the equipment
39 - What and how much hazardous material is involved
40 - Manufacturer, shipper, receiver
41 - Weather conditions.
42
- 43 • Set up resource areas:
44
45 - Command post location
46 - Logistics area
47 - Triage area
48 - Decontamination area (personnel and equipment)
49 - Staging area
50 - Planning.
51
- 52 • Reevaluate evacuation boundaries and identify containment zones to
53 adequately protect responding personnel

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- Take any additional actions to mitigate the incident, possibly include the following:
 - Cool tanks involved in a fire or exposed to heat to reduce the potential for explosion
 - Remove all available ignition sources
 - Divert liquid and run-off water to prevent contamination spread
 - Dike and retain liquids from a leak or spill
 - Limit property damage as much as possible
 - Provide on-scene emergency medical services.
 - Document the response to the incident and provide a report to appropriate management
 - Conduct a critique, including cause(s), impact(s), and lesson(s) learned from an incident, following the emergency incident and on completion of the emergency response to that incident. The Emergency Coordinator and/or BED ensures that all appropriate parties are aware of, and participate in, decisions on the best course(s) of action to take to prevent or minimize the possibility of future occurrences.

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5.8 DAMAGED, UNACCEPTABLE SHIPMENTS

(Signal: None) When a damaged shipment of hazardous material or dangerous waste arrives at a TSD unit and the shipment is unacceptable for receipt, the damaged shipment should not be moved. The TSD unit personnel instead perform the following steps.

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- If the release from damaged package is a 'minor' spill under the criteria of Section 5.2, the following actions are performed.
 - Notify the BED, the Hanford Fire Department, and the single point-of-contact to advise of the situation. The BED responds and assists in the evaluation of, and response to, the incident.
 - Notify the generating unit of the damaged shipment and provide any chemical information necessary to assist in responding to the 'minor' spill.
 - Proceed with remedial action, including overpacking damaged containers, cleanup of spilled material, or other necessary actions to contain the spill.

- Implement the TSD unit contingency plan, if the release does not meet the criteria of a 'minor' spill as noted previously, or the extent of the spill cannot be determined.

5.9 PREVENTION OF RECURRENCE OR SPREAD OF FIRES, EXPLOSIONS, OR RELEASES

The BED, in coordination with emergency response organizations, takes the steps necessary to ensure that a secondary release, fire, or explosion does not occur. The following actions are taken:

- Isolate the area of the initial incident by shutting off power, closing off ventilation systems, etc., to minimize the spread of a release and/or the potential for a fire or explosion
- Inspect containment for leaks, cracks, or other damage
- Inspect for toxic vapor generation
- Remove released material and waste remaining inside of containment structures as soon as possible
- Contain and isolate residual waste material using dikes and adsorbents
- Cover or otherwise stabilize areas where residual released materials remain to prevent migration or spread from wind or precipitation run-off
- Install new structures, systems, or equipment to enable better management of hazardous materials or dangerous waste
- Reactivate adjacent operations in affected areas only after cleanup of residual waste materials is achieved.

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6.0 TERMINATION OF EVENT, INCIDENT RECOVERY, AND RESTART OF OPERATIONS

6.1 TERMINATION OF EVENT

It is a function of the BED (Emergency Coordinator) to declare the termination of an event. However, in an event where additional emergency centers are activated only the highest activated level of the emergency organization, in conjunction with the BED, will declare that an event has ended. If the RL-EMT is activated, only the RL-EMT Emergency Manager officially terminates the event. In all cases, however, the BED or Emergency Coordinator must be consulted before reentry is initiated.

6.2 INCIDENT RECOVERY AND RESTART OF OPERATIONS

A recovery plan is developed when necessary. A recovery plan is needed following an event when further risk could be introduced to personnel, a TSD unit, or the environment through recovery action and/or to maximize the preservation of evidence. If a recovery plan is required, it is reviewed by appropriate personnel and approved before restart. Restart of operations is performed in accordance with the approved plan.

If the contingency plan was implemented, notification must be made to Ecology before operations can resume. Section 9.0 discusses different reports to outside agencies. This notification is in addition to the required reports in Section 9.0. This notification must include that there are no incompatibility issues with the waste and released materials from the incident, and that all the equipment has been cleaned, is fit for its intended use and placed back into service. The notification may be made via telephone conference. Any additional information that Ecology requests regarding these restart conditions may be included in the required 15-day report identified in Section 9.0.

For emergencies not involving activation of the ECC, the BED ensures that conditions are restored to normal before operations are resumed. If the ECC was activated and the emergency phase is complete, a special recovery organization could be appointed at the discretion of the BED to restore conditions to normal. The makeup of this organization depends on the extent of the damage and its effects. The recovery organization will be appointed by the appropriate contractors' emergency director.

6.3 INCOMPATIBLE WASTE

After an event, the BED or the recovery organization ensures that no waste that might be incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed. Cleanup actions are taken by TSD unit operations personnel or other assigned personnel. Actions to be taken might include, but are not limited to, any of the following:

- Neutralization of corrosive spills

- 1 • Chemical treatment of reactive materials to reduce hazards
- 2
- 3 • Overpacking or transfer of contents from leaking containers
- 4
- 5 • Use of sorbents to contain and/or absorb leaking liquids for
- 6 containerization and disposal
- 7
- 8 • Decontamination of solid surfaces impacted by released material,
- 9 e.g., intact containers, equipment, floors, containment systems,
- 10 etc.
- 11
- 12 • Disposal of contaminated porous materials that cannot be
- 13 decontaminated and any contaminated soil
- 14
- 15 • Containerization and sampling of recovered materials for
- 16 classification and determination of proper disposal technique
- 17
- 18 • Follow up sampling of decontaminated surfaces to determine adequacy
- 19 of cleanup techniques as appropriate.
- 20

21 Waste from cleanup activities is designated and managed as newly
22 generated waste. A field check for compatibility before storage is performed
23 as necessary. Incompatible wastes are not placed in the same container.
24 Containers of waste are placed in storage areas appropriate for their
25 compatibility class.

26
27 If it is determined that incompatibility of waste was a factor in the
28 incident, the BED or the recovery organization ensures that the cause is
29 corrected. Examples would be modification of an incompatibility chart or
30 increased scrutiny of waste from a generating unit when incorrectly designated
31 waste caused or contributed to an incident.

32 33 34 **6.4 POST-EMERGENCY EQUIPMENT MAINTENANCE AND DECONTAMINATION**

35
36 All equipment used during an incident is decontaminated (if practicable)
37 or disposed of as spill debris. Decontaminated equipment is checked for
38 proper operation before storage for subsequent use. Consumables and disposed
39 materials are restocked. Fire extinguishers are recharged or replaced.

40
41 The BED ensures that all equipment is cleaned and fit for its intended
42 use before operations are resumed. Depleted stocks of neutralizing and
43 absorbing materials are replenished, self-contained breathing apparatus are
44 cleaned and refilled, protective clothing are cleaned or disposed of and
45 restocked, etc.

46
47 Equipment and personnel decontamination stations are established
48 considering the following information and techniques.

49
50 Items to consider when establishing a decontamination station are as
51 follows:

- 52 • Water supplies
- 53

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- Containment/catch basins and/or systems
- Staff necessary to accomplish proper decontamination
- Protective clothing
- Decontamination supplies (buckets, brushes, soap, chemicals as needed)
- Risk to personnel
- Weather conditions; i.e., severe heat, cold (current and forecasted)
- Toxicity of material
- Porosity of equipment to be decontaminated
- Disposal requirements of decontamination rinse
- Use of controlled zones to maintain contamination control.

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7.0 EMERGENCY EQUIPMENT AND RESOURCES

7.1 HANFORD FACILITY EMERGENCY CENTERS

The emergency centers (ECs) are those locations staffed to provide assistance to building emergency organizations in an emergency situation. The ECs are established to support and to provide overall direction of emergency events occurring at locations within their geographic area of responsibility, within the Hanford Facility. This includes acquisition of and assignment of resources to respond to emergency events. Responsibilities also include personnel protection (employee and public), TSD unit safety, and environmental protection. The establishment of ECs ensures that notification and communication of emergency conditions are communicated properly.

There are several ECs located throughout the Hanford Facility and Hanford Site (Table 1).

7.2 COMMUNICATIONS EQUIPMENT

The Hanford Facility has alarm systems that are monitored by the Hanford Fire Department and the POC. The alarm signals that exist at the Hanford Facility are identified in Table 2. The TSD unit operations personnel also may use telephones, building PA systems, portable radios, and cellular telephones to summon assistance.

7.3 FIRE CONTROL EQUIPMENT

Many Hanford Facility buildings are equipped with automatic fire-suppression (sprinkler) systems. Portable fire extinguishers are located in working areas in compliance with National Fire Protection Association safety codes. Each Class ABC extinguisher is capable of suppressing fires involving ordinary combustible materials, flammable liquids, oils, paints, flammable gases, and electrical equipment. All extinguishers comply with the National Fire Code standards for portable extinguishers and are inspected monthly. The inspections are recorded on tags attached to each extinguisher.

7.4 PERSONAL PROTECTIVE EQUIPMENT

The TSD units have safety showers and eyewash stations, located as necessary, for personnel protection. Drainage from these stations is contained. In addition to these stations, portable eyewash equipment is maintained at protective storage areas as necessary. These eyewash/shower stations are inspected regularly.

Protective clothing and respiratory protective equipment are maintained for use during both routine and emergency operations. This equipment is identified in the unit-specific contingency plans.

Table 1. Emergency Centers.

Emergency Centers	Responsibility
<u>Northern Area Emergency Control Center</u> Location: 2750-E, 200 East Area	Geographic area of responsibility: All 100 and 200 Areas plus the 600 Area north of the WYE Barricade bounded by the Columbia River and Highway 240.
<u>300 Area Emergency Control Center</u> Location: 3701-D, 300 Area	Geographic area of responsibility: RCHS, RCHC, RCHN, 1100 and 3000 Areas plus the 600 Area south of the WYE Barricade bounded by the Columbia River and Highway 240.
<u>400 Area Emergency Control Center</u> Location: Fast Flux Test Facility, 400 Area	Geographic area of responsibility: 400 Area.
<u>North Richland Emergency Control Center</u> Location: Pacific Northwest Laboratory Materials Reliability Center Building	Battelle, Pacific Northwest National Laboratories operated facilities located in the RCHN area.
<u>DOE-RL Emergency Operations Center</u> Location: Federal Building, Richland	Area of responsibility: Responsible for the remaining 600 Area not covered by the area ECs, assisting area ECs, coordinating the Facility-wide response to emergencies, serving as the focal point for other Hanford Site contractors and DOE-RL during emergencies and for providing overall direction for all Hanford Facility emergency situations involving the DOE-RL and/or contractor personnel, ensuring direct interface with all offsite agencies for mitigation and protection of offsite populations, facilities, and the environment.

RCHS = Richland South.
 RCHC = Richland Central.
 RCHN = Richland North.

Table 2. Hanford Facility Alarm Systems.

Signal	Meaning	Response
Crash Alarm Telephones (red telephone)	Emergency message	Lift receiver, do not speak, listen to caller and relay message(s) to building occupants and BED or alternate.
Gong (2 gongs/second)	Fire	Evacuate building. Move upwind. Keep clear of emergency vehicles.
Siren (steady blast)	Area evacuation	Proceed promptly to accountability area. Follow instructions.
Wavering Siren	Take cover	Close all exterior doors, turn off all intake ventilation and notify manager of whereabouts. Request call back for status and monitor portable radios.
Howler (AA-00-GAH)	Criticality	Immediately run to the nearest exit and move and remain at least 100 feet (30.5 meters) from the building.

1 **7.5 SPILL CONTROL AND CONTAINMENT SUPPLIES**
2

3 Supplies of absorbent pillows are located in operating areas as
4 necessary. These pillows absorb organic or inorganic materials and have a
5 rated absorption capacity of approximately 0.26 gallon (1 liter) of waste
6 each. Absorbents might be used for barriers to contain liquid spills as well
7 as for absorbent purposes. Diatomaceous earth for absorption of liquid waste
8 spills is available. Neutralizing absorbent is available for response to acid
9 or caustic spills. A supply of empty containers and salvage containers
10 (overpacks) also are maintained as well as brooms, shovels, and miscellaneous
11 spill response supplies.
12

13
14 **7.6 HANFORD SITE EMERGENCY ORGANIZATIONS**
15

16 The Hanford Facility has fire and patrol personnel trained and equipped
17 to respond in emergency situations. The Hanford Fire Department is the
18 Hazardous Materials Incident Command Agency for the Hanford Site and has a
19 Hazardous Materials Response Team that is trained to stabilize and control
20 hazardous materials emergencies. A description of equipment for hazardous
21 materials responses available through the Hazardous Materials Response Team is
22 given in Table 3. Locations of the four fire stations on the Hanford Facility
23 are shown on Figure 2.
24

25 The Hanford Patrol provides support to the Hanford Fire Department during
26 an incident, including such activities as activation of area crash alarm
27 telephone systems or area sirens (for evacuation or take cover), access
28 control, traffic control, and assistance in emergency notifications.

Table 3. Fire Department Equipment List. (sheet 1 of 3)

Equipment	Description	*Normally Located
Engines 4 Ladders 4 Pumps	Examples of equipment contained on engines: <ul style="list-style-type: none"> • 1,500-2,000 gal/min (5,678.1-7,570.8 L/min) pump • 300-500 gal (1,135.6-1,892.7 L) portable tank • Telescoping nozzle • Jaws of Life. 	1 at each station
Tankers 6 Each	Examples of equipment contained on tankers and pumps: <ul style="list-style-type: none"> • 500 gal/min (1,892.7 L/min) pump • 1,500 gal (5,678.1 L) tank • 6x6 with 2,000 gal (7,570.8 L) porti-tank • Hose, nozzles, fittings, and tools. 	1 at Station 1 2 at Station 2 1 at Station 4 2 at Station 3
Water Tenders 1 Each	Examples of equipment contained on water tenders: <ul style="list-style-type: none"> • 450 gal/min (1,703.4 L/min) pump • 4,500 gal (17,034.3 L) tank • Hose, nozzles, fittings, and tools. 	Station 1
Grass Fire Units 4 Each	Examples of equipment contained on grass fire units: <ul style="list-style-type: none"> • 100 gal/min (378.5 L/min) pump • 250 gal (946.3 L) tank • 4-wheel drive • Hose, nozzles, fittings, and tools. 	1 at each station
Ambulances 5 Each	Examples of equipment contained on ambulances: <ul style="list-style-type: none"> • Life support systems • Medical supplies and emergency response supplies. 	1 at Station 1 2 at Station 2 1 at Station 3 1 at Station 4
Command Vehicles 3 Each	Contains communications equipment and protective equipment for commander.	Station 2

Table 3. Fire Department Equipment List. (sheet 2 of 3)

Equipment	Description	*Normally Located
1 2 3 4 5 Attack Vehicles 1 Each	Examples of equipment contained on attack vehicles: <ul style="list-style-type: none"> • 450 lb (204.1 kg) of purple-K • 300 gal (1,133.6 L) aqueous film-forming foam concentrate • 300 gal (1,135.6 L) of aqueous film-forming foam pre-mix solution • Hose, nozzles, fittings, and tools. 	Station 2
6 7 8 9 Hazardous Materials Vehicle 2 Each	Examples of equipment contained on hazardous materials vehicle: <ul style="list-style-type: none"> • Protective clothing for Hazardous Materials Response Team • Breathing apparatus for Hazardous Materials Response Team • Diking, plugging, and damming equipment • Detection instruments for Hazardous Materials Response Team • Tools for plugging and repairing leaking containers • Overpack containers for leaking containers • Command module with material safety data sheets, software, and portable meteorological station • Tools and communications devices necessary to provide communications during emergency response activities. 	1 at Station 2 1 at Station 3
10 11 12 13 Metal Fire Response Vehicle 1 Each	Examples of equipment contained on metal fire response vehicle: <ul style="list-style-type: none"> • Equipment for response to special metals fire • 500 lb (226.8 kg) of extinguishing powder • 1,000 lb (453.6 kg) of carbon microspheroids. 	Station 4

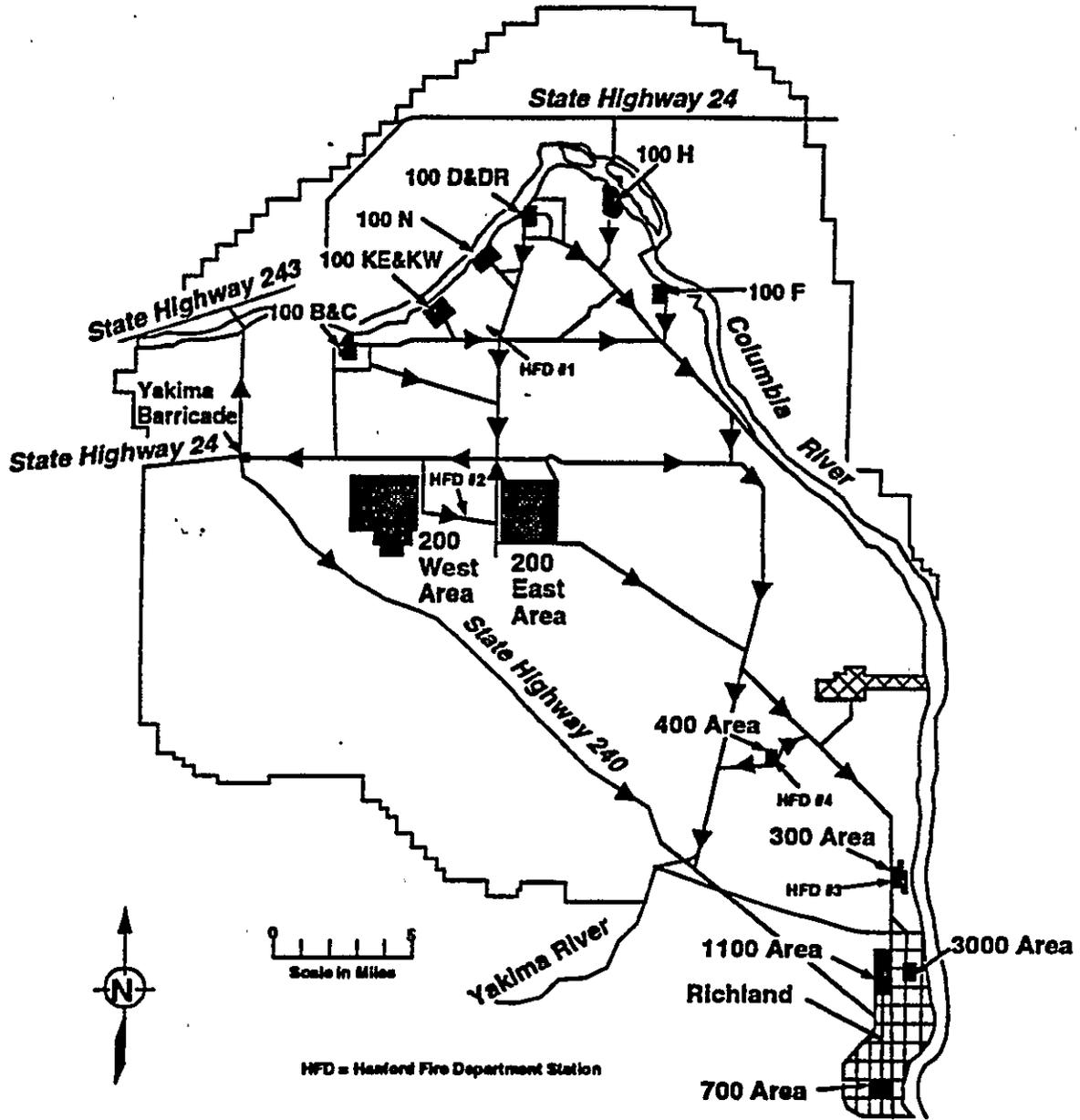
Table 3. Fire Department Equipment List. (sheet 3 of 3)

Equipment	Description	*Normally Located
Mobile Air Vehicle 1 Each	Examples of equipment contained on mobile air vehicle: <ul style="list-style-type: none"> • Mobile air compressor, recharges self-contained breathing apparatus cylinders • Tools and fittings for operation of vehicle and spare cylinders. 	Station 4

*The Hanford Fire Department Chief has the authority to direct the placement of Fire Department equipment as needed to control emergency events. The Hanford Fire Department Chief also has the authority to take pro-active action and assign different vehicle locations based on such conditions as fuel moisture content, area fire history, work in progress, or other conditions that could arise.

- gal = gallon(s)
- gal/min = gallon(s) per minute
- kg = kilogram(s)
- L = liter(s)
- L/min = liter(s) per minute
- lb = pound(s)

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Figure 2. Locations of the Fire Stations on the Hanford Facility.

8.0 COORDINATION AGREEMENTS

This section describes a number of coordination agreements (MOUs) established by and through the DOE-RL to ensure proper response resource availability for incidents involving the Hanford Facility.

An agreement among the major Hanford Site contractors (an operations, engineering and construction contractor, an environmental restoration contractor, a research and development contractor, and a medical and health services contractor) defines the interfaces and notifications required during an emergency. The DOE-RL has the overall responsibility for emergency preparedness. Per the agreements, the operations and engineering contractor has responsibility for Site-wide emergency preparedness while each contractor retains responsibility for emergency preparedness at individual units. Agreements have been established with a number of offsite authorities to reduce the impact to human health and/or the environment in the event that an incident has offsite public health implications, or if an onsite emergency warrants offsite assistance. These agreements are activated through the emergency notification of the DOE-RL (Section 4.1).

8.1 LOCAL, STATE, AND FEDERAL AUTHORITIES

Various agreements have been established among the DOE-RL and Benton, Franklin, and Grant Counties and the states of Washington and Oregon. These agreements describe the cooperative arrangements among these agencies for any onsite emergency that warrants offsite assistance. These agreements describe the planning for, communication of, and response to emergencies at the Hanford Facility that might have offsite consequences.

8.2 HANFORD FIRE DEPARTMENT MUTUAL AID

The Hanford Fire Department provides fire department services for the Hanford Site and Hanford Facility. Mutual aid agreements have been established with Richland, Kennewick, and Pasco fire departments; with Benton County Fire Districts 1 through 6, Franklin County Fire District 3, and Walla Walla Fire District 5.

8.3 MEDICAL AND FIRST AID

Professional medical help is provided onsite by the DOE-RL through the Hanford Environmental Health Foundation. Doctors and nurses are available for emergency assistance at all times. These medical personnel are trained in procedures to assist personnel contaminated with hazardous and/or radioactive material. Emergency call lists are maintained to provide professional medical consultation at all times.

Referral to offsite hospital facilities is made by the Hanford Environmental Health Foundation physician providing emergency assistance by telephone or in person. The primary hospital used in emergencies is Kadlec

1 Hospital, Richland. Kennewick General Hospital, Kennewick, and Our Lady of
2 Lourdes Hospital, Pasco, are used as backup facilities. Agreements have been
3 established among these hospitals and the DOE-RL.
4
5

6 **8.4 AMBULANCE SERVICE**

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8 Ambulance service is provided by the Hanford Fire Department, which uses
9 paramedics and emergency medical technicians as attendants. This service is
10 available from area fire stations on a 24-hour, 7-day basis. Additional
11 ambulance service is available from other local city fire departments through
12 the mutual aid agreements (Section 8.2).
13
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15 **8.5 UNIFIED DOSE ASSESSMENT CENTER**

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17 The Unified Dose Assessment Center (UDAC) is the technical extension of
18 the DOE-RL-EMT, providing services to both the DOE-RL-EMT and the ECCs. The
19 primary mission of the UDAC is to provide recommendations for protective
20 actions, dose calculations and projections, and consultation in the area of
21 industrial hygiene for hazardous materials, biology, environmental monitoring,
22 and meteorology to support the DOE-RL-EMT and the ECCs.
23

24 Industrial hygiene and biological consultants at the UDAC advise and
25 assist in determining proper response procedures for spills or releases of
26 toxic, flammable, carcinogenic, and pathogenic materials. The UDAC personnel
27 are responsible to provide a central unified assessment of the dispersion and
28 impact of environmental releases from the Hanford Facility. In communication
29 with the ECC, UDAC coordinates the assessment of impacts and assists in the
30 determination of actual and potential release scenarios.
31
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33 **8.6 HANFORD PATROL/BENTON COUNTY SHERIFF**

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35 The Hanford Patrol serves as the security agency for the Hanford
36 Facility. The Benton County Sheriff's Department provides law enforcement for
37 the Hanford Facility. In the event of an emergency, the Hanford Patrol
38 provides services such as activating the crash alarm systems or area sirens,
39 coordinating the movement of emergency responders through security gates,
40 assisting evacuation, establishing barricades, and making necessary
41 notifications through the single point-of-contacts. Benton County Deputies
42 will assist with traffic control activities. Agreements also have been
43 established with the Richland, Kennewick, and Pasco police departments to
44 provide additional backup capabilities if required.
45
46

47 **8.7 ALERTING OF PERSONNEL ON THE COLUMBIA RIVER**

48

49 An agreement exists among the DOE-RL, the Washington Public Power Supply
50 System, Benton and Franklin Counties, and the Thirteenth Coast Guard District
51 to ensure safety on the Columbia River during an emergency at the Hanford
52 Facility and to coordinate response activities for alerting personnel on the
53 Columbia River.

1 **8.8 METEOROLOGICAL INFORMATION**

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3 An agreement is in place between the DOE-RL and the National Weather
4 Service to define mutual responsibilities for providing meteorological
5 information in an emergency situation. Additional meteorological information
6 can be obtained from the Hanford Site weather station.
7

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9 **8.9 WASHINGTON PUBLIC POWER SUPPLY SYSTEM**

10
11 An agreement has been established between the DOE-RL and Washington
12 Public Power Supply System for providing mutual assistance as needed. This
13 assistance is available in the use of facilities and equipment for personnel
14 decontamination, first aid, evacuation and reassembly areas, respiratory
15 protective equipment, protective clothing, radiological survey equipment,
16 resources for river evacuation, and radiological assistance response.

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9.0 REQUIRED REPORTS

Three types of written post-incident reports are required for incidents at the Hanford Facility. These reports are summarized in the following sections.

9.1 ASSESSMENT REPORT TO ECOLOGY AND GOVERNMENT OFFICIAL OR NATIONAL RESPONSE CENTER

Immediately following classification of an incident as a WAC 173-303 emergency, an assessment report must be transmitted when the regulatory agencies are notified. This initial assessment report will be submitted by DOE-RL and must include:

- Name and telephone number of reporter
- Name and Address of facility
- Time and type of incident (e.g., release, fire)
- Name and quantity of material(s) involved, to the extent known
- The extent of injuries, if any; and
- The possible hazards to human health and the environment outside the facility

9.2 WRITTEN REPORT TO ECOLOGY

Following an incident that requires implementation of the contingency plan, the BED must ensure that the time, date, and details of the incident are recorded in the TSD units operating record. Within 15 days of the incident, a written report must be submitted to Ecology. The report generated through the DOE-RL reporting system may be used to supplement this written report, but will not be used as a substitute. The 15 day report will be submitted by DOE-RL and must include;

- Name, address, and telephone number of RL contact
- Name, address, and telephone number of the affected TSD unit
- Date, time, and type of incident (e.g., fire, explosion)
- Name and quantity of material(s) involved
- The extent of any injuries if any
- Assessment of any actual or potential hazards to human health or the environment caused by the incident, where this is applicable;

- Estimated quantity and disposition of recovered material that resulted from the incident
- Cause of the incident
- Description of corrective action taken to prevent reoccurrence of the incident.

9.3 OCCURRENCE REPORTING

Under DOE Order O 232.1 an occurrence report is required for incidents occurring at the Hanford Facility involving hazardous materials release, fire, etc. Specific details of this reporting system are found in the DOE Order. To summarize, the event is categorized within 2 hours and proper notifications are completed to onsite and offsite agencies to include contractor, DOE, county, and state organizations.

These occurrences are investigated, reported, and analyzed promptly to ensure that effective corrective actions are taken in compliance with contractual and statutory requirements. All such occurrences are recorded in the building manager's log book, and the log book is audited to ensure that incidents were reported and handled properly. In the DOE reporting system, three levels of incidents are described, in descending order of severity: emergency, unusual occurrence, and offnormal occurrences.

9.3.1 Emergency Event Reporting

An emergency event involves an incident in progress or having occurred that is the most serious occurrence and requires an increased alert status for onsite and, in specified cases, for offsite authorities. There are three classifications associated with emergency events: Alert, Site Area Emergency, and General Emergency. Occurrences are classified into one of the three levels based on real or potential consequences to personnel, facilities, or the environment, both on and off of the Hanford Facility. Current MOUs between the state of Washington and the Hanford Site identify events that would be classified at the stated levels. Emergency events require notification of classification to affected populations.

9.3.2 Unusual Occurrence Reporting

An unusual occurrence is a nonemergency occurrence that has significant impact or potential for impact on safety, environment, health, security, or operations. Generally, these types of events result in release of radioactive or hazardous materials in minor amounts, involve degradation of unit safety systems, result in fatalities, exposures to hazardous or radioactive materials, or significant contamination incidents.

1 **9.3.3 Offnormal Event Reporting**
2

3 An offnormal event is a significant deviation from normal operations that
4 requires categorization and reporting. Hanford Facility management is
5 required to evaluate an event to determine the depth of investigation and
6 level of reporting required.

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10.0 CONTINGENCY PLAN LOCATION

Copies of this Plan are maintained at the following locations:

- Each specific TSD unit
- Hanford Fire Department (area fire stations)
- Area ECs
- Occurrence Notification Center
- The DOE-RL Emergency Operations Center, Federal Building, Richland
- POC

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11.0 REFERENCES

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4 DOE Order O 232.1, *Occurrence Reporting and Processing of Operations*
5 *Information*

6
7 DOE Order O 151.1, *Comprehensive Emergency Management System*

8
9 NIOSH, 1985, *Pocket Guide to Chemical Hazards*, National Institute of
10 Occupational Safety and Health, U.S. Department of Health and Human
11 Resources, Public Health Service, Centers for Disease Control,
12 Washington, D.C.

13
14 WAC 173-303, *Dangerous Waste Regulations*, Washington State Department of
15 Ecology, Olympia, Washington.

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**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS**

1. Page 2-6, Figure 2-3: Remove and replace with attached page.

Reason: For the quarter ending September 30, 1995, modifications were submitted that changed the location of certain wastes to allow for more streamlined packaging. The new figure displays the contents of each cell as the modification dictated.

2. Page 3-6: Remove and replace with attached page. Text was revised on lines 15-17, beginning with "The priority of hazard designation for those substance with multiple hazards or for mixtures is the same used by the DOT in 49 CFR 173.2 (DOT 1988)". This change deletes "173.2 (DOT 1988)," and replaces it with "173.2 and 173.2a. Refer to these tables when multiple hazards exist."

Reason: The DOT reference is outdated. The DOT has updated the hazard designation tables for substances with multiple hazards. The new sections covering this are 49 CFR 173.2 and 173.2a.

3. Page 3-6: Remove and replace with attached page. Text was revised on lines 17-34; these listings are duplicates of the outdated table from 49 CFR 173.2 (DOT 1988).

Reason: Refer to Number 2.

4. Page 3-8: Remove and replace with attached page. Text was revised on lines 15-16, beginning with "Persistent (for wastes designated WP01, WP02, or WP03 . . ." Waste code WC01 and WC02 categories were deleted from this sentence, and replaced with "Corrosive" (for waste designated WCS2).

Reason: To be consistent with changes made to WAC 173-303, as amended November 1995. WAC 173-303 no longer contains waste code WC01 or WC02 categories, and waste code WCS2 category was added for state-only solid corrosive waste.

5. Page 3-8: Remove and replace with attached page. Text was revised on lines 40-47; "Halogenated hydrocarbons" was deleted and "Flammable Solids and Compressed Gases (including aerosols)" were added. Also the "ORM" category was changed to "Class 9".

Reason: Most hydrogenated hydrocarbons were classified as DOT- ORM-A's and are now classified as DOT - toxic. Others had "persistent" criteria and are now stored with State-only waste. "Flammable Solids and Compressed Gases (including aerosols)" were added to be in alignment with DOT regulations, which allows for a more streamlined packaging process.

6. Page 3-8: Remove and replace with attached page. Text was revised on lines 13-14 to correct reference. "WAC 173-303-084" should be "WAC 173-303-100".

7. Page 3-10: Remove and replace with attached page. Text was revised on lines 9-11; delete the sentence beginning with "Analytical laboratories in the area with these capabilities include . . ." and replace with "The 305-B Storage Facility maintains contracts with qualified offsite analysis facilities to perform the analysis."

Reason: Updates current practice. Two of the three laboratories listed no longer exist and the third is PNL.

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

8. Page 4-2: Remove and replace with attached page. Text was revised on line 52, beginning with "At a minimum, this includes coveralls, safety glasses, . . .". Remove "coveralls" and replace with "labcoats".

Reason: All containers being placed into labpacks are closed containers. The labcoat is sufficient protection for this activity.

9. Page 4-6, Figure 4-1: Remove and replace with attached page.

Reason: In the Class 1 Modification for the quarter ending September 30, 1995 this figure was updated, and the "E" after the Number "1" for the shelves was inadvertently omitted.

10. Page 7-20, Figure 7-2: Remove and replace with attached page.

Reason: Refer to Number 1.

11. Page 8-2: Remove and replace with attached page. Text was inserted on line 37; Waste Designation Training is added to the list of training courses required.

Reason: This change is in response to a voluntary compliance letter issued February 16, 1996 by the Washington State Department of Ecology. This training will allow for a more methodical, uniform approach to designating the waste at the 305-B Storage Facility.

12. Page 8-4: Remove and replace with attached page. Text was inserted on line 43; descriptions of the Waste Designation course listed in Number 10, and the Hazardous Waste Operations Supervisor course were added.

Reason: Refer to Number 10 for the Waste Designation course. The Hazardous Waste Operations Supervisors course was not described in the original text.

13. Appendix 8A-1: Remove and replace with attached page.

Reason: Updates the 305-B operations personnel list.

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement page for DOE-RL 90-01, Rev. 1
Chapter 2

Page: 2-6

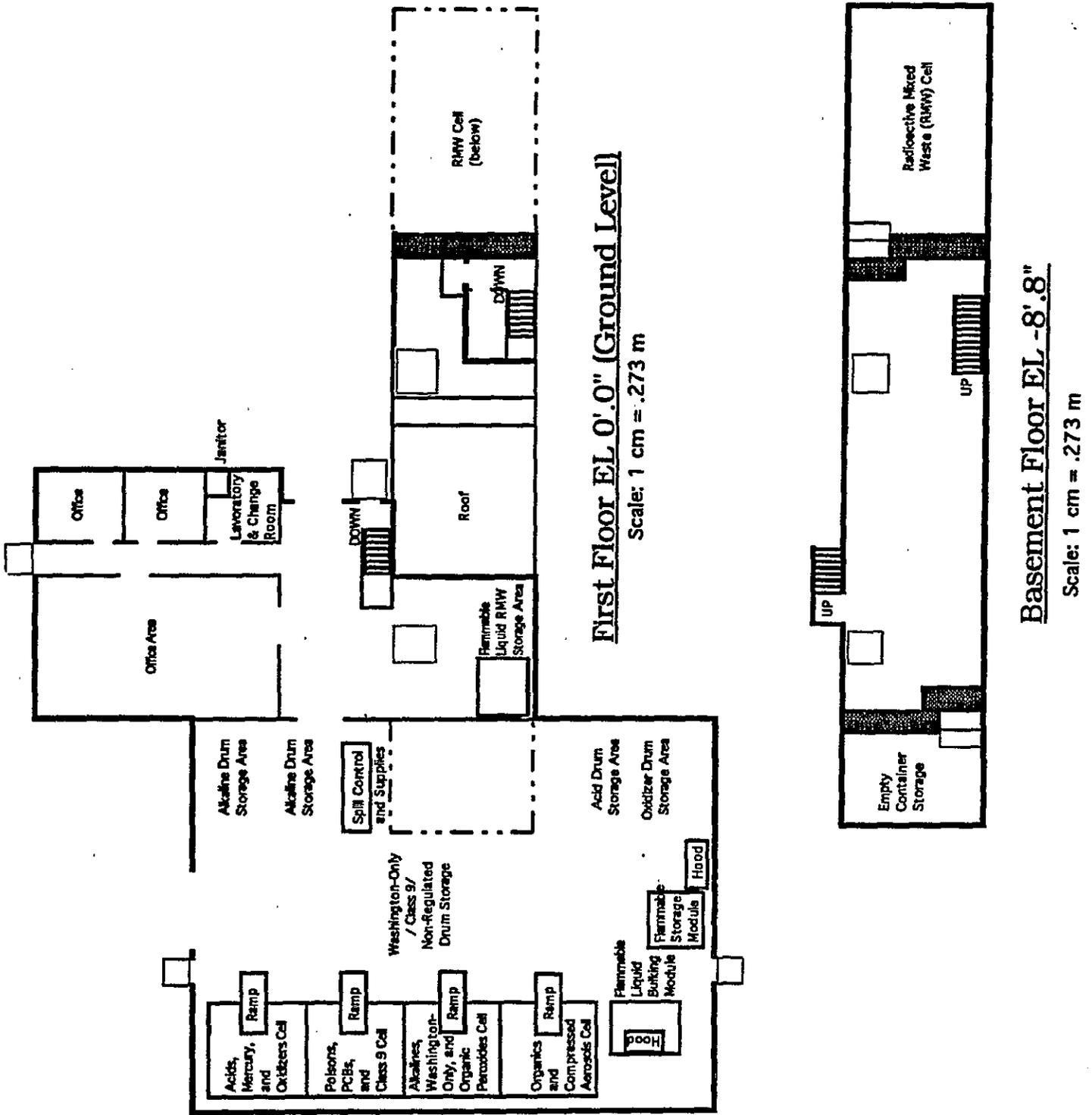


Figure 2-3. 305-B Storage Unit Floor Plan.

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement pages for DOE-RL 90-01, Rev. 1
Chapter 3

Pages: 3-6, 3-8, and 3-10

1 original containers, or from the material safety data sheet (MSDS) for the
2 product.
3

4 Notification for Storing of Waste. The waste analysis process begins when the
5 waste management organization is notified of the presence of a chemical or
6 mixed waste. This notification is accomplished by the generating unit
7 completing and transmitting a Chemical Disposal/Recycle Request Form (Fig. 2-
8 8). The form describes the volume and chemical composition of waste in each
9 waste container for disposal. Hazard and compatibility information are
10 obtained for each item on the disposal request form to ensure the safety of
11 the waste management organization staff who collect and transport the waste
12 and to ensure safe and appropriate storage in 305-B.
13

14 The compatibility and hazard designation are determined using references
15 listed in WAC 173-303-070 and those in Table 3-1. The priority of hazard
16 designation for those substances with multiple hazards or for mixtures is the
17 same used by the DOT in 49 CFR 173.2 and 173.2a. Refer to these tables when
18 multiple hazards exist.
19

20 Reference sources used for determining waste designations and compatibility
21 must meet four distinct needs of the dangerous waste manager and sample
22 collector. They must enable each to:
23

- 24 • Identify those wastes which are designated dangerous in accordance
25 with WAC 173-303 and whether those wastes are DW or EHW
26
- 27 • Determine whether the waste is restricted from land disposal under
3 40 CFR 268 or WAC 173-303-140 and, as appropriate, complies with
29 treatment standards under 40 CFR 268 or WAC 173-303-140
30
- 31 • Identify and verify specific morphological characteristics of
32 waste in solid or solution form
33
- 34 • Outline how to safely handle, transport, analyze, store, and
35 dispose of the waste product or sample.

1 matches with the container labeling and visual inspection, the wastes are
2 approved for storage. If discrepancies are found, the generating unit is
3 required to resubmit the disposal request with accurate information. Unknown
4 or unidentified materials are sampled by generating unit staff for
5 identification of constituents and remain at the generating unit until the
6 composition has been determined. Generating units must arrange for sampling
7 and analysis of all unknown materials, as described in Sections 3.2.1 through
8 3.2.6.
9

10 Labeling and Marking. After inspection of the waste at the generating unit,
11 the approved wastes are assigned a unique computer identification number and
12 hazard classification. The waste containers are then marked and labeled in
13 compliance with WAC 173-303-190 (DOT marking and labeling), and Washington
14 "Hazardous Waste" markings. Wastes meeting Washington dangerous waste
15 criteria under WAC 173-303-100 or 173-303-090 are marked "Toxic" (for wastes
16 designated WT01 or WT02), "Persistent" (for wastes designated WP01, WP02, or
17 WP03), and/or "Corrosive (for waste designated WCS2) in accordance with WAC
18 173-303-630(3). In addition, each waste container is labeled with a list of
19 constituents and/or an appropriate hazard description. The containers are
20 also labeled indicating compatibility group and cell location, and with a
21 unique computer-generated identification number created by the tracking system
22 described below. This computerized information helps the waste handlers
23 ensure safe handling, storage, retrieval and transportation of dangerous
24 waste.
25

26 Transportation. The labeled containers are transported to 305-B by PNL staff.
27 Staff responsible for transporting wastes are trained in applicable DOT
28 requirements and emergency response. Wastes are transported using a truck or
29 light utility vehicle. For transport on roads accessible to the public, the
30 vehicles are placarded in compliance with DOT regulations and manifested in
31 compliance with WAC 173-303-180, as applicable.
32

33 Waste Handling, Storage, and Tracking at 305-B. Wastes received at 305-B are
34 put into 13 separate hazard classifications based on building and fire code
35 restrictions for that type of facility:
36

- 37 1) Nonflammable RMW
- 38 2) Oxidizers
- 39 3) Acids, (organic and inorganic)
- 40 4) Poison
- 41 5) Caustics
- 42 6) Non-Regulated
- 43 7) Miscellaneous (Class 9 categories)
- 44 8) Washington State only waste (e.g., sodium chloride, sodium bicarbonate)
- 45 9) Compressed Gases (including aerosols)
- 46 11) Flammable Solids
- 47 12) Flammable and combustible liquids
- 48 13) Flammable and combustible RMW
- 49 14) TSCA wastes (PCB and asbestos) waste
- 50 15) Special Case wastes (organic peroxides, explosives, etc.)

1 If, for any reason, 305-B personnel believe that more stringent analysis of
2 non-reagent grade chemical wastes is needed (i.e., flash cans and mixtures),
3 they will request that the generating unit have the wastes analyzed by an
4 approved analytical laboratory. Reasons for this request may be questionable
5 appearance of the waste, periodic confirmation of waste composition, or
6 historically unreliable information from a particular generating unit. There
7 is no established frequency for this sampling and analysis; it is conducted on
8 an as-needed basis. This analysis must be performed in accordance with EPA
9 SW-846 procedures (EPA 1986). The 305-B Storage Facility maintains contracts
10 with qualified offsite analysis facilities to perform the analysis. The
11 generating unit must also provide the laboratory analysis confirming the waste
12 composition when the waste management organization picks up the waste. This
13 analysis will become part of the 305-B Operating Record.

14 3.2.1 Parameters and Rationale [C-2a]

15 Waste testing parameters and the rationale for these parameters are summarized
16 in Table 3-2. Testing parameters for each type of unknown waste were selected
17 to obtain data sufficient to properly designate the waste under WAC 173-303-
18 070 and to properly manage the wastes. If limited information on the source
19 of the waste is available, all of the parameters may not be required. For
20 example, if waste oil is known to be from an area where no PCB is present,
21 testing for PCB may not be required.

22 3.2.2 Test Methods [C-2b]

23 Waste testing methods and references to these methods are as specified in WAC
24 173-303-110(3) or approved by Ecology in accordance with WAC 173-303-110(5).
25 These methods are summarized in Table 3-2. All methods are specified in
26 *Chemical Testing Methods*, WDOE 83-13 (Ecology 1983) and/or *Test Methods for*
27 *Evaluating Solid Waste, Physical/Chemical Methods*, EPA SW-846 (EPA 1986).

28 3.2.3 Sampling Methods [C-2c]

29 Representative sampling may be requested by unit staff to ensure proper waste
30 identification. Sampling may be performed by unit personnel or the generating
31 unit producing the waste.

32 In all instances, sampling methods will conform to the representative sample
33 methods referenced in WAC 173-303-110(2), i.e. ASTM standards for solids and
34 SW-846 for liquids. The specific sampling methods and equipment used will
35 vary with the chemical and physical nature of the waste material and the
36 sampling circumstances.

37 Representative samples of liquid wastes (vertical "core sections") will be
38 obtained using a composite liquid waste sampler (COLIWASA) or tubing, as
39 appropriate. The sampler will be long enough to reach the bottom of the
40 container in order to provide a representative sample of all phases of the
41 containerized liquid waste. If a liquid waste has more than one phase, each
42 phase will be separated for individual testing and designation.

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement pages for DOE-RL 90-01, Rev. 1
Chapter 4

Pages: 4-2 and 4-6

1 location, prevent capacity overrun, etc. These inspection procedures are
2 detailed in Section 6.2.

3
4 Container Handling. All unit staff are instructed in proper container
5 handling safeguards as part of their training (see Section 8.1.2 for further
6 details). For example, employees are instructed to open all high-vapor-
7 pressure liquids in the flammable liquid bulking module to avoid buildup of
8 vapors in the unit.

9 Containers are always kept closed except when adding or removing waste, in
10 accordance with WAC 173-303-630(5)(a).

11
12 Containers are not opened, handled or stored in a manner which would cause the
13 container to leak or rupture. Small containers (five gallons or less
14 capacity) are stored on ventilated shelving or in approved flammable liquid
15 storage lockers (if appropriate). Containers over five gallons capacity are
16 stored on the floor of the appropriate storage cell, in cabinets, or stored in
17 the appropriate containment area on the high bay floor under Section 4.3.2.
18 Unnecessary handling not required for redistribution or preparation for
19 transport and disposal by either labpacking or bulking (see below) is
20 minimized. Drums are moved manually, by crane or chain hoist, or with an
21 electric forklift. For manual movement, hand trucks specifically designed for
22 drum handling are used. Crane and chain hoist operations are performed using
23 a choker chain or drum hoist. When using the forklift, a drum hoist is used
24 or the drums are carried on pallets. Drums are never carried on the forks or
25 "speared" by slipping the forks under the chime.

26
27 When waste handling operations are conducted, a minimum of two persons are
28 present in the unit.

29
30 Lab Packing. One of the major functions of the 305-B Storage Unit is the
31 preparation of lab packs for offsite recycling, treatment and/or disposal of
32 small quantity lab wastes generated by DOE-RL/PNL activities.

33
34 Lab packs are prepared in compliance with WAC 173-303-161, 49 CFR 173.12,
35 other applicable regulations, and permit conditions of the planned receiving
36 facility (recycler, treatment facility, or disposal facility). Permit
37 conditions affecting preparation of lab packs might include types of absorbent
38 materials to be used (e.g., no vermiculite).

39
40 Lab packs are prepared in the storage cell containing the hazard class(es) to
41 be placed in the lab pack. The elephant trunk ventilator system is used to
42 minimize respirable dusts from the absorbent material being used (usually
43 diatomaceous earth). Lab packs may also be prepared in the flammable liquid
44 bulking module if appropriate; for instance, if compatible materials from more
45 than one storage cell are being combined in a single lab pack drum. Lab packs
46 may be prepared in the high bay storage area if storage of the completed lab
47 pack is permitted there per Section 4.3.2.

48
49 Partial and completed lab packs are closed, labeled, and the contents list
50 documented. Labpacks are stored in the cell from which the containers inside
51 were drawn, or in the high bay if appropriate.

52
53 Unit personnel wear appropriate protective clothing while handling containers
54 being placed in lab packs. At a minimum this includes labcoats, safety
55 glasses or other protective eyewear, and chemical resistant gloves. More
56 stringent

1

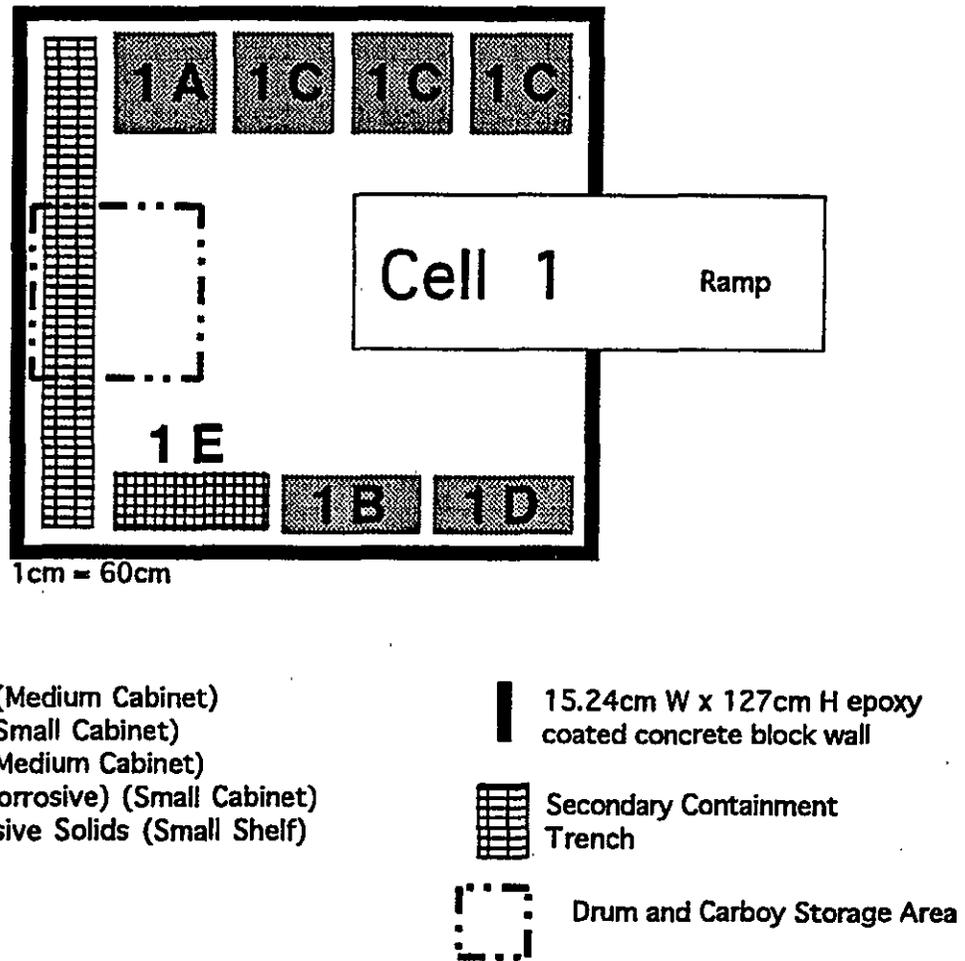


Figure 4-1. Acids and Oxidizers Cell.

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement page for DOE-RL 90-01, Rev. 1
Chapter 7

Page: 7-20

1

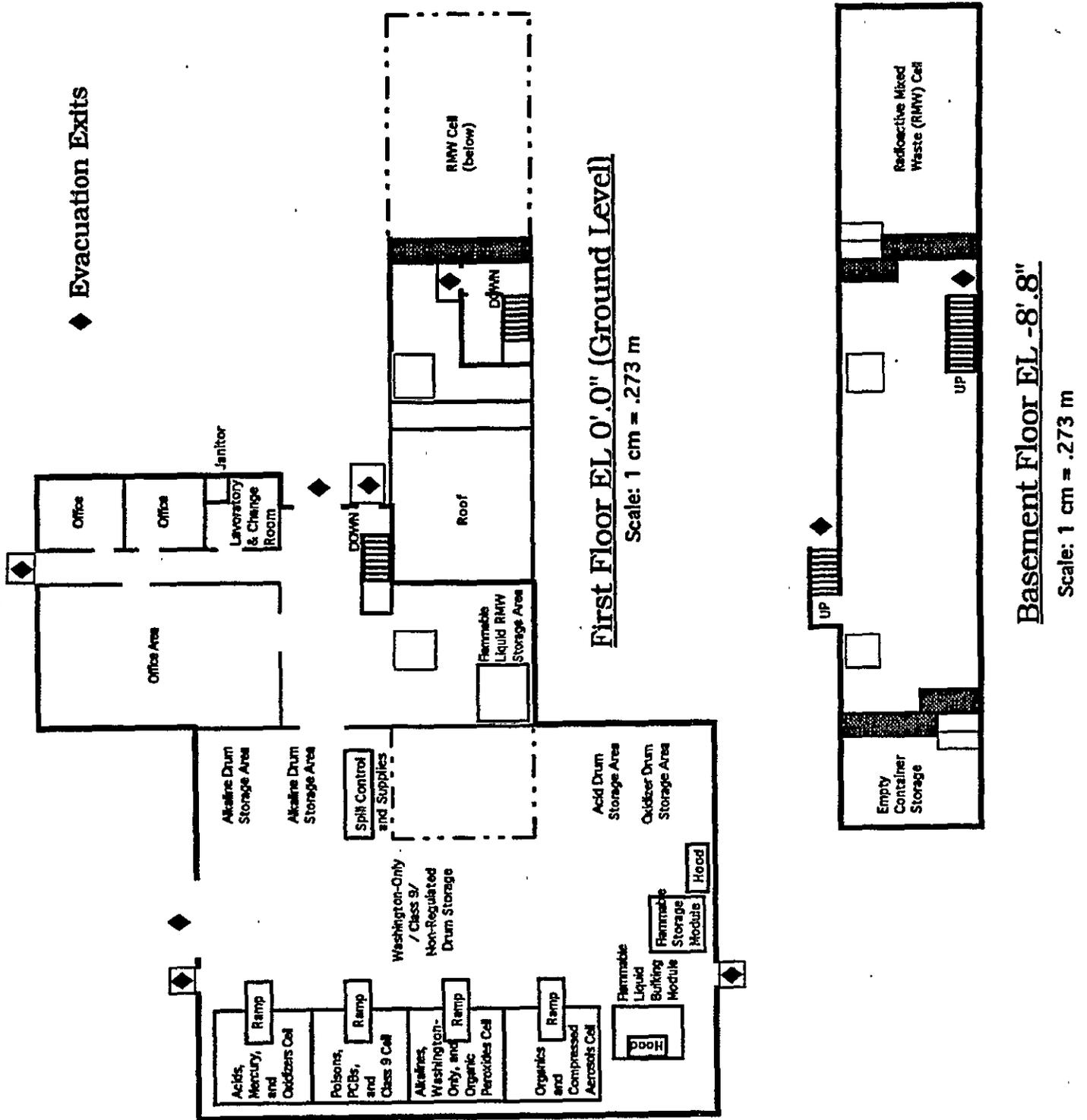


Figure 7-2. 305-B Evacuation Exits.

>

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement pages for DOE-RL 90-01, Rev. 1
Chapter 8

Pages: 8-2, 8-4, and 8-4a

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STAFF POSITION¹

TRAINING COURSE NAME	OS	E	TS	C
Building Emergency/Contingency Plan	A ²	A	A	A
Handheld Radio Operator	I	I	I	I
General Radiation Safety	B	B	B	N
Radiation Safety for Females ³	I	I	I	I
Respiratory Protection	A	A	A	N
TSD Operator (24 hour w/8-hour refresher)	I/A	I/A	I/A	I/A
SCBA Training	A	A	A	N
Fire Extinguisher Use	A	A	A	A
Worker Right-To-Know	I	I	I	I
Vehicle Accident Prevention	T	T	T	T
Crane, Hoist and Rigging Safety	N	N	T	N
Safe Forklift Operation	N	N	T	N
Hazardous Waste Shipment Certification	I	I	I	N
Radioactive Material Shipping Representative	N	B ⁴	N	N
305-B Safe Operating Procedures	A	A	A	A
Hazardous and Mixed Waste Generator	A	A	A	A
Hazardous Waste Operations Supervisor	I	N	N	N
Waste Designation Training	I	I	N	N

¹Staff Position Key: OS — Unit Operations Supervisor
E — RMW and Waste Management Engineers
TS — Waste Management Technicians and Technical Specialists
C — Waste Management Clerks

²Requirements Key: A — Annually; B — Biennially; T — Triennially; I — Initially upon assignment to the unit; N — Not Required.

³Required for female staff only.

⁴Required for RMW Engineers only.

Figure 8-1. 305-B Training Requirements.

1 Information on material safety data sheets and their availability and on
2 standard industrial hygiene terms is also covered.

- 3
- 4 • Vehicle Accident Prevention — Initial (2 hours) and triennial
5 refresher (30 minutes): This course is intended to familiarize
6 employees with safe driving rules and with the requirements for
7 operation of government-owned and PNL-owned vehicles.
- 8
- 9 • General Radiation Safety — Biennial: This course gives staff
10 members information on the basic characteristics of radiation,
11 natural and manmade sources, biological effects and risks of
12 radiation exposure, ALARA, contamination control, and warnings and
13 alarms.
- 14
- 15 • NCRP Report 39 — Initial: For female radiation workers only. The
16 briefing informs the female radiation worker of the potential
17 hazards of radiation to women of reproductive age.
- 18
- 19 • 305-B Safe Operating Procedures — Annual or whenever procedure
20 content is revised, whichever is more frequent: This requirement
21 is fulfilled by reading and studying the written procedures.
- 22
- 23 • Hazardous Waste Shipment Certification — Initial: This course
24 provides training to those who supervise and prepare hazardous
25 waste shipments and who certify that these shipments have been
26 properly prepared in compliance with applicable laws and
27 regulations. This training ensures that these persons understand
28 their responsibilities and liabilities in the shipment of
29 hazardous waste and that they have a basic understanding of which
30 regulations are applicable and how they must achieve compliance.
- 31
- 32 • Radioactive Material Shipping Representative — Biennial: This
33 course provides training in the onsite radioactive material
34 shipping procedures and requirements. Successful completion of
35 this course is required to receive authorization to sign for
36 onsite radioactive shipments (onsite RSRs).
- 37
- 38 • Crane Hoist and Rigging Safety — Triennial: This course provides
39 instruction in the safe operation of cranes and in proper rigging
40 techniques.
- 41
- 42 • Safe Forklift Operation — Triennial: This course provides
43 instruction in the safe operation of forklifts.
- 44
- 45 • Hazardous Waste Operations Supervisor Training — Initial: This
46 course gives hazardous waste operation instruction from a managers
47 standpoint.
- 48
- 49 • Waste Designation Training — Initial: This course gives instruction on
50 proper designation of waste in accordance with WAC 173-303.
- 51

52 Training is tracked and documented by PNL and by the unit training
3 coordinator. Training records and class documentation are held on file in the
4 waste management
55

Class 1 Modification:
Quarter Ending 03/31/96

DOE-RL 90-01, REV. 1
04/03/92

1 operations office in 305-B as part of the Operating Record. The waste
2 organization manager is responsible for ensuring the necessary training is
3 provided to the 305-B staff.

**PART III CLASS 1 MODIFICATIONS:
305-B STORAGE FACILITY UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement page for DOE-RL 90-01, Rev. 2
Appendix 8A

Page: 8A-1

305-B UNIT OPERATIONS PERSONNEL

TITLE	NAME	WORK PHONE
Unit Operating Supervisor	GM Bartel-Bailey	376-4189
Waste Management Engineer	CJ Simiele	373-9349
Waste Management Specialist	EL Grohs	373-7759
Waste Management Specialist	DL McMullin	373-5575
Waste Management Specialist	DS Rilling	373-7758
Waste Management Specialist	JR Tanasse	376-0272
Waste Management Technician	HK Schnebly	372-2745
Waste Management Clerk	PS Braxton	376-1845

**PART V CLASS 1 MODIFICATIONS:
183-H SOLAR EVAPORATION BASIN UNIT-SPECIFIC CONDITIONS**

1. Appendix N: Remove and replace with the attached Appendix N.

Reason: Changes to the Personnel Training Plan due to contractor change.

2. Pages III-4 [lines 41-45] and III-5 [lines 1-6]: Remove and replace with the attached pages III-4 and III-5.

Reason: The purgewater collection system is no longer applicable and the river gage is no longer maintained for the RCRA program.

3. Pages III-76 [lines 49-52] and III-77 [lines 3-5]: Remove and replace with the attached pages III-76 and III-77.

Reason: Change in official contact for the 183-H Basins during post-closure care.

**PART V CLASS 1 MODIFICATIONS:
183-H SOLAR EVAPORATION BASIN UNIT-SPECIFIC CONDITIONS (cont.)**

Replacement pages for DOE-RL 88-04, Rev. 3

Appendix N

APPENDIX N

PERSONNEL TRAINING

This is the ERC team training plan for the 183-H Solar Evaporation Basins. It is intended to meet the requirements of WAC 173-303-330 and the Hanford Dangerous Waste Permit. Training unrelated to compliance with WAC 173-303-330 is not addressed in this training plan. WAC 173-303-330(1)(d)(ii, v, vi) requires that personnel be familiarized, where applicable, with waste feed cut-off systems, response to ground-water contamination incidents, and shutdown of operations. These are not applicable to 183-H Solar Evaporation Basins and are, therefore, not covered in this training plan.

Training Matrix

Facility Personnel: The following matrix indicates the training that facility personnel must receive relative to their position each calendar year in order to perform work at the 183-H Solar Evaporation Basins. After a course has been taken once, only a refresher course is necessary for subsequent years. Training must be successfully completed by personnel within six months after employment at or assignment to 183-H Solar Evaporation Basins, or to a new position at 183-H Solar Evaporation Basins. Within the six month period, employees must be supervised until they complete training required for their position.

Non-facility personnel: If non-facility personnel (such as delivery truck drivers or Ecology inspectors) will be anywhere near dangerous waste management activities, then they must receive site specific training relative to the 183-H Solar Evaporation Basins or be escorted by trained personnel.

POSITIONS

COURSES	WASTE HANDLERS	GENERAL WORKERS	FIELD SUPPORT SUPERVISORS	EMERGENCY COORDINATOR
Hazardous Waste Operations	YES	NO	YES	YES
NESO/HGET	YES	YES	YES	YES
Site Specific	YES	YES	YES	YES
Bldg. Warden/BED	NO	NO	NO	YES
BHI Waste Management, Packaging & Storage Training	YES	NO	YES	NO

1 Course Descriptions
2

3 Hazardous Waste Operations 24-Hour, 40-Hour Training Course or Annual Refresher Course:
4 Provides training relative to dangerous waste management, hazard identification, and
5 protective clothing.
6

7 Hanford Employee Safety Orientation NESO Course and Refresher (Hanford General
8 Employee Training HGET):

9 Provides training relative to contingency plan implementation, effective response to
10 emergencies, communications and alarm systems, and response to fire or explosion.
11

12 Site Specific: Provides unit specific training relative to dangerous waste management hazards,
13 contingency plan implementation, effective response to emergencies, communications and
14 alarm systems, response to fire or explosion, emergency equipment, and procedures for using,
15 inspecting, repairing, and replacing emergency and monitoring equipment.
16

17 Building Warden Training or Building Emergency Director Training
18 Refresher for either course):

19 Provides training relative to emergency coordinator responsibilities.
20

21 BHI Waste Management, Packaging & Storage Training:

22 Provides an overview of waste management requirements identified for ERC activities.
23

24 Training Director

25
26 Personnel directing training under this plan shall be knowledgeable in dangerous waste
27 management procedures.
28

29 Records Retention

30
31 This training plan includes employee training records. The employee training records are
32 maintained electronically and are available on BLAN soft reporting. This training plan shall be
33 kept at the Hanford Facility and be readily retrievable. A hard copy of any site specific training
34 that is not recorded in soft reporting must be kept on file and be readily retrievable.
35

36 Revision

37
38 This training plan shall be revised whenever training requirements in WAC 173-303-330 or the
39 Hanford dangerous waste permit is revised.
40

41 Dangerous Waste Management Position Descriptions

42
43 This training plan applies only to employees who perform work at 183-H Solar Evaporation
44 Basins or are 183-H Solar Evaporation Basins Emergency Coordinators. If employees fit into
45 more than one position, they shall be placed in the position that requires the higher level of
46 training.

1 Job Title: **Waste Handler**

2

3 Job Description:

4 Duties: Perform inspections, treat wastes, perform treatability tests, take samples, package and
5 ship waste, respond to emergencies.

6 Required Skills: Basic communication skills and ability to follow instructions

7 Required Education: None

8 Other Required Qualifications: None

9

10 Job Title: **General Workers**

11

12 Job Description:

13 Duties: Perform inspections, respond to emergencies, provide maintenance services, operate
14 equipment, and set up equipment that may support an activity but does not allow the worker to
15 be in direct contact or handling of hazardous wastes.

16 Required Skills: Basic communication skills and ability to follow instructions

17 Required Education: None

18 Other Required Qualifications: None

19

20 Job Title: **Supervisors**

21

22 Job Description:

23 Duties: Supervise waste handlers and general workers, assure personnel training, perform
24 inspections, respond to emergencies.

25 Required Skills: Management

26 Required Education: 4 year college degree or equivalent knowledge and experience

27 Other Required Qualifications: None

28

29 Job Title: **Emergency Coordinators**

30

31 Job Description:

32 Duties: Respond to emergencies per WAC 173-303-360.

33 Required Skills: Management

34 Required Education: 4 year college degree or equivalent knowledge and experience

35 Other Required Qualifications: None

36

37

PART V CLASS 1 MODIFICATIONS:
183-H SOLAR EVAPORATION BASIN UNIT-SPECIFIC CONDITIONS (cont.)

Replacement pages for DOE-RL 88-04, Rev. 3
Section III

Pages III-4, III-5, III-76, and III-77

1 **III.A-1d. Vegetative Cover Condition.** The 183-H Basins vegetative cover will be
2 inspected biweekly until the vegetation cover is established, and quarterly thereafter. The
3 inspection will consist of walking over the site to visually check the condition of the
4 vegetation. The vegetative cover is a very important factor for the long-term stability of
5 the landfill cover. The quarterly inspection has been scheduled to observe the site and
6 vegetative cover during the different seasonal conditions. Erosion damage that results in
7 the loss of 1 foot of the fine topsoil layer will be reported to Ecology within 30 days of
8 observation. After evaluation, maintenance actions may include replacement of the fine
9 soil top layer at the affected area, reseeding, and other tasks, that were performed during
10 closure to ensure that vigorous vegetative growth, such as the application of fertilizers. No
11 cover damage is expected from inspectors walking over the site in order to perform
12 quarterly inspection duties.

13
14 Should a piece of heavy construction equipment be required to ascend the 3H:1V
15 (preliminary design, subsequently Ecology has directed that the cover's sideslopes will be
16 4H:1V or less) embankment for repair or cover maintenance, a temporary ramp would be
17 constructed to protect the configuration of the embankment materials. If the vegetative
18 cover canopy is less than 50 percent of the achievable cover canopy (nominally 10 percent
19 at the Hanford Site) after 2 years from the closure date, Ecology will be notified.
20 Vegetative cover canopy will be measured using the point intercept method (Floyd and
21 Anderson 1983) or cover class estimation method (Daubenmire 1959). No documentable
22 data exist regarding achievable percent canopy cover for sites that have been revegetated
23 with Thickspike and Siberian wheatgrasses at the Hanford Site. However, observations of
24 revegetated stabilization projects have indicated that a minimum of 10 percent cover is
5 achievable. Maintenance action will include reseeding and the possible application of
_6 fertilizer. The inspection of the vegetative cover will follow the same procedures as
27 outlined for erosion damage.
28

29 **III.A.-1e. Integrity of Run-On and Run-Off Control Measures.** Inspections of the integrity
30 of the run-on and run-off control system will be performed concurrent with cover
31 inspections. Ecology will be notified within 30 days following identification of any erosion
32 greater than or equal to 1 foot in the areas of the run-on and run-off control systems.
33

34 **III.A-1f. Cover Drainage System Functioning.** The 183-H Basins final cover will be
35 inspected quarterly. The inspection will consist of a walking over the site to visually check
36 the cover drainage system. The main focus will be the integrity of the run-on and run-off
37 precipitation control systems, and the nonvegetated perimeter of the final cover. The
38 quarterly survey has been scheduled to observe the site during different seasonal
39 conditions. Additionally, extra inspections will be made, as dictated by unusual weather
40 occurrences (e.g., heavy thunderstorms, rapid snow melts). The inspections will follow the
41 same procedures as outlined for erosion damage.
42

43 **III.A-1g. Well Condition.** The well condition will be visually inspected during each water
44 sampling/monitoring. Problems and/or damage will be noted in the sampling logbook and
45 duly reported so that repairs can be made. Additionally, any problems noted during the
46 quarterly inspections will be recorded in the inspection logbook. Maintenance actions will
47 be scheduled so that, if possible, the subsequent inspection can document correction of the
_8 previous problem.

1 **III.A-1h. Benchmark Integrity.** Inspection (surveying) of the 100-H Area benchmarks will
2 be done yearly. The 100-H Area was originally laid out with a benchmark on every node of
3 an 800-foot grid. When the surveyors do any work on the Hanford Site, the standard
4 practice has been to use two or more benchmarks to cross-check the integrity of their
5 measurements. Benchmarks that have been observed to be damaged or out of alignment,
6 will initiate maintenance action. Maintenance action will include replacement of damaged
7 benchmarks and/or surveying of benchmarks found to be out of alignment.
8

9
10 **III.A-2. Monitoring Plan**

11
12 This section describes the groundwater monitoring network that has been in operation
13 for the 183-H Basins since May 1974. Also, included in the summary of analytical results
14 that have been obtained thus far, and a discussion of the groundwater monitoring program
15 to be continued until a final status post-closure permit is issued by Ecology.
16

17 The following documents have been prepared by Pacific Northwest Laboratory for the
18 DOE-RL that describe the design of the 100-H Area groundwater monitoring network and
19 summarize the current state of knowledge regarding geohydrologic characteristics beneath
20 the 183-H Basins:

- 21
- 22 • *Revised Groundwater Monitoring Compliance Plan for the 183-H Solar Evaporation*
23 *Basins, PNL-6470, September 1986 (PNL 1986b)*
 - 24
 - 25 • *Interim Characterization Report for the Area Surrounding the 183-H Basins,*
26 *PNL-6471, April 1987 (PNL 1987f)*
 - 27
 - 28 • *Geohydrologic Characterization of the Area Surrounding the 183-H Solar*
29 *Evaporation Basins, PNL-6728, December 1988 (Liikala et al. 1988).*
30

31 Quarterly and annual progress reports for each RCRA groundwater unit on the Hanford
32 Site have been prepared and forwarded to Ecology. Pacific Northwest Laboratory has
33 prepared these reports for the 183-H Basins in the past, and Westinghouse Hanford will be
34 taking over production of the reports during 1990. The following reports were produced by
35 Pacific Northwest Laboratory and are currently available under the title *Groundwater*
36 *Monitoring Compliance Projects for Hanford Site Facilities: Progress Reports:*

1 183-H Basins, which includes surveillance measures, intrusion barrier requirements,
2 warning signs, and waiver declarations.

3
4 **III.C-1. Security**

5
6 Post-closure security will be maintained by routine surveillance, physical barriers, and
7 warning signs that will remain in effect during the post-closure care period.

8
9 **III.C-1a. Security Procedures and Equipment.** The 183-H Basins facility will be covered
10 with an engineered earthen cap. This cap will be surrounded by a chain link fence with
11 locked gates and warning signs as per 40 CFR 265.14(b)(2)(i).

12
13 **III.C-1a(1). 24-hour Surveillance System.** The 183-H Basins facility will not have a 24-
14 hour surveillance system. Because the closed facility will have an earthen barrier, a fence,
15 and a means to control entry, it will not require 24-hour surveillance.

16
17 **III.C-1a(2). Barrier, Means to Control Entry, and Warning Signs.** The 183-H Basins are
18 located within the Hanford Site controlled access area where roadways are restricted to
19 authorized personnel and cannot be accessed by the general public. Also, the 183-H
20 Basins facility will be surrounded by an 8-foot high chain link fence with three strands of
21 barbed wire above the fence as per 40 CFR 265.14(b)(2)(i) (EPA 1989c).

22
23 In addition to Hanford Site-wide controlled access, the gates of the chain link fence
24 surrounding the 183-H Basins will be locked at all times. The only exceptions will be when
25 surveillance and/or repairs are being made. Keys will be kept by the surveillance ground
26 and the Pacific Northwest Laboratory to access the wells within the fence. The 183-H
27 Basins will have warning signs wired to the fences at each entrance to the facility and
28 along the fence so as to be seen from any approach. The signs will indicate the office and
29 telephone number to contact for site information. The legend on the signs will be written
30 in English and will be legible from a distance of at least 25 feet. The legend on the signs
31 will be:

32
33 **DANGER. UNAUTHORIZED PERSONNEL KEEP OUT.**

34
35 **III.C-1b. Waiver.** Waivers are not anticipated for equipment requirements, injury to
36 intruders, or violations caused by intruders.

37
38 **III.D. POST-CLOSURE CONTACT**

39
40 The following offices will be the official contacts for the 183-H Basins during the post-
41 closure care period:

42
43 U.S. Department of Energy
44 Richland Operations Office
45 Richland, WA 99352

Bechtel Hanford, Inc.
P.O. Box 969
Richland, WA 99352

1 **III.E. AMENDMENT OF POST-CLOSURE PLAN**
2

3 This post-closure plan will be amended whenever changes in operating plans or facility
4 design affect the post-closure plan. This plan may be amended any time during the active
5 life of the facility or during the post-closure care period. The facility no longer receives
6 operational wastes, although it continues to evaporate wastes through natural processes.
7 The approved post-closure plan will be amended by submitting a written request to the
8 appropriate regulatory agency to authorize a change in the approved plan. The written
9 request will include a copy of the amended post-closure plan for approval. The modified
10 plan will be submitted at least 60 days prior to the proposed change in facility design or
11 operation.
12

13 **III.F. CERTIFICATION OF COMPLETION OF POST-CLOSURE CARE**
14

15 Within 60 days after post-closure care has been completed, the DOE-RL will submit by
16 registered mail to the regulating authority both a self-certification and a certification by an
17 independent registered professional engineer that the 183-H Basins have been closed in
18 accordance with the specification of the approved closure plan.
19

20 **III.F.-1. Owner/Operator Post-Closure Certification**
21

22 The DOE-RL will self-certify using the following document or a document similar to it:
23

24 I, (name), an authorized representative of the United States Department of Energy-
5 Richland Operation Office located at the Federal Building, 825 Jadwin Avenue,
26 Richland, Washington, hereby state and certify that the 183-H Solar Evaporation Basins
27 at 100-H Area to the best of my knowledge and belief has been closed in accordance
28 with the attached approved post-closure plan, and that the post-closure was completed
29 on (date). (Signature and date).
30

31 **III.F.-2. Professional Engineer Post-Closure Certification**
32

33 The DOE-RL will engage a professional engineer, registered in the state of Washington,
34 independent from the DOE-RL, to certify that the 183-H Basins have been closed in
35 accordance with this approved post-closure plan.
36

37 The DOE-RL will require the engineer to sign the following document or a document
38 similar to it:
39
40