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MANUAL REVISION INSTRUCTIONS (MRI)

Date Prepared: May 26, 1995

TO:
DEBRA A ISOM
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Document No.: WHC-CM-7-5 Level: II

Title: *ENVIRONMENTAL COMPLIANCE*

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INSTRUCTIONS

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6.1 Purpose

The purpose of this section is to establish the requirements for activities conducted within inactive waste sites (radioactive, nonradioactive, hazardous, and nonhazardous) including those designated as surplus facilities. This includes activities leading to the discovery of undocumented waste sites.

6.2 Scope

This section applies to all activities occurring within inactive waste sites and surplus facilities that are identified for restoration and remediation, interim stability, or decommissioning. The requirements of this section do not apply to the operations of active burial grounds or active treatment, storage, and disposal units. Section 6.5, however, applies to the entire Hanford site.

6.3 Inactive Waste Sites

Inactive waste sites include burial grounds, unplanned release sites, cribs, ditches, ponds, trenches and basins, abandoned storage areas, drains, single-shell tank piping, transfer pits, and jumper boxes. The criteria and standards in this section are based upon standards established in the federal and state laws, U.S. Department of Energy (DOE) Orders, Westinghouse Hanford Company (WHC) policies and procedures, and the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement). The requirements of this section do not apply to the operations of active burial grounds and active treatment, storage, and disposal units or to facilities which are shut down but not declared as surplus (i.e., PUREX, B-Plant, FFTF, etc.).

6.3.1 Responsibilities

1. Facility managers and landlords shall:

   a. When applicable, provide a barrier over the disposal site contamination source to inhibit radionuclide transport to the surface (i.e., as defined in 6.5, soil contamination limits).

   b. Accurately and permanently mark inactive radioactive site boundaries with Hanford plan standard (AC-5-40) approved concrete marker posts. Never used sites and those that are no longer contaminated do not require marker posts.

   c. Isolate, cap, or seal off facility effluent lines which are potential discharge points to prevent accidental releases to inactive sites. This shall be verified and documented.

   d. Ensure compliance with requirements in Section 5.0 of this manual for all inactive waste management units within their facility or area.

   e. Ensure waste site modifications are documented in the Waste Information Data System (WIDS), for any occurance. IF an undocumented suspect waste site is discovered, THEN investigate and document (e.g. WIDS entry).

f. Obtain written approval from NFM and the operable unit manager (as applicable) prior to any use of an inactive waste site for any waste disposal purpose or activity that may adversely impact such a site (e.g., disposal of construction debris).

g. Ensure the overall safe and secure operation/status of inactive waste sites. keep all waste sites free of tumbleweeds. IF radionuclide uptake is detected or probable, THEN remove other deep-rooted vegetation such as rabbitbrush and sagebrush. Perform required maintenance, housekeeping, and control site access.

h. Maintain appropriate information, copies of survey reports, and maintenance activities.

2. Health Physics (HP) shall:

a. Perform routine radiological surveys of radioactive waste sites to detect transport of contamination to the surface, as directed by NFM.

b. Issue radiological survey reports for all inactive waste sites surveyed. This includes issuing and tracking Radiation Problem Reports (RPRs) when in violation of the site Radiological Manual.

c. Maintain and forward to NFM and the appropriate activity and/or landlord managers information copies of all radiological reports and RPRs concerning status of inactive waste sites.

3. Near Field Monitoring (NFM) shall:

a. Investigate, and evaluate suspect waste sites and modifications to existing waste sites and document them through the WIDS.

b. Interface with BHI WIDS custodian concerning suspect waste sites and modifications to existing waste sites.

c. Establish radiological survey schedules of inactive radioactive waste sites.

d. Conduct compliance assessments of active and inactive waste sites to determine compliance with the physical and radiological requirements established in this section.

e. Compile and maintain copies of historical records, including radiological survey reports, surveillance compliance inspection reports (SCIRs), compliance assessments, and other information for each inactive radioactive waste site.

f. Trend radiological data, and issue reports on the status of radiological surveys and surveillance/compliance inspections and compliance assessments for active and inactive radioactive waste sites.

g. Review any proposed activity, other than routine inspections, that may impact or may be impacted by any inactive waste site.

h. When violations of this section occur, issue compliance assessment reports to appropriate facility manager or area landlord for corrective actions.

4. Hanford Technical Services (HTS) shall:

a. Review groundwater monitoring results.

b. Establish, conduct, maintain, and interpret data for a vadose zone (unsaturated zone) monitoring program.

c. Coordinate with BHI to add the suspect or unplanned waste site into an existing operable unit.

5. WHC emplyees shall report suspect and modifications to existing waste sites to NFM, lanlord personnel, and their manager.

6.3.2 Requirements

6.3.2.1 General

1. The facility manager or landlord shall isolate process lines of active facilities to preclude an accidental release to an inactive site. Isolation of process lines shall be documented at the facility. The NFM shall verify the documentation of process line isolation and maintain information copies of the verification record. For sites in which isolation has not yet been accomplished, a compliance plan (see Controlled Manual Waiver Request) or an administrative control plan to reduce the possibility of discharges to the site shall be prepared and submitted to NFM.

   BASIS: WHC best management practice for minimizing the migration of contamination.

2. There shall be no liquid discharges, including nonradioactive discharges, to inactive radioactive waste sites unless the discharge is part of an interim or final cleanup response. This requirement avoids the movement of previously contaminated material in the soil column. Water spray is allowed during earth moving operations as required for dust control.

   BASIS: DOE 5400.5 (II.3.c.[2]) prohibits the discharge of liquids, even though uncontaminated, in inactive release areas to prevent the further spread of radionuclides previously deposited.

3. Inactive radioactive waste sites shall be surveyed at least annually by HP and inspected by NFM to ensure that the radiological and physical conditions are compliant with appropriate standards. Deficiencies such as subsidence, erosion, and vegetation control housekeeping (as noted from surveillances) shall be corrected by the facility manager or landlord. HP shall be responsible for notifying the facility manager or landlord and NFM of any deficiencies.

   BASIS: DOE 5400.1 (IV.5.b[1]) requires that an environmental surveillance shall be conducted to monitor the effects of DOE activities on onsite and offsite environmental and natural resources. Periodic surveillance is needed to verify

that barriers and other controls to prevent transport of radioactive contamination to the surface are working as planned.

4. The facility manager or area landlord shall periodically survey all inactive waste sites and maintain appropriate information copies of survey reports.

   BASIS: WHC best management practice for ensuring compliance with 40 CFR 264.90, Subpart F, "Releases from Solid Waste Management Units."

5. All suspect waste sites shall be reported immediately to NFM upon discovery.

   BASIS: RCRA 3004(u), Comprehensive Environmental Response Compensation and Liability Act 40 CFR 300.400, DOE 5400.4, and WHC best management practice for the management and inventory of all types of inactive waste management sites, including surplus facilities and all unplanned releases and spills.

6. Inactive waste sites shall not be used for any other purpose (e.g., disposal of construction debris) without prior written approval from NFM and the operable unit manager.

   BASIS: WHC best management practice for ensuring compliance with RCRA 3004(u), and 40 CFR 300.400, Subpart E.

7. All inactive waste sites shall be isolated (i.e. locked) and posted, as necessary and appropriate, to prevent any unauthorized entry, to protect personnel from hazards and to prevent the potential spread of contamination.

   BASIS: WHC best management practice for ensuring compliance with RCRA 3004(u), and 40 CFR 300.400, Subpart E.

8. Work activities (construction or performance of other work) that are below the ordinary high water line of the state waters, or are within one quarter mile of the Columbia River, shall be in accordance with requirements in Section 10.0 of this manual.

   BASIS: WHC best management practice.

6.3.2.2 Routine activities

1. The facility manager or landlord shall perform any one or more actions from the following list when contamination of any type is detected (either new or in excess of action limits) to prevent the migration of the contamination:

   - Small-scale stabilization (<5 acres)
   - Vegetation removal
   - Radioactive hot-spot removal
   - Fencing
   - Posting (posting is used in conjunction with remedial action)
   - Herbicide spraying

- Immediate spill response
- Other corrective measures.

BASIS: WHC-CM-4-11 states that the goal and objective of the As Low As Reasonably Achievable (ALARA) Program is to minimize human and environmental exposures to radiation and hazardous substances and conditions, commensurate with sound economics and operating practices and verbatim requirements from WHC-CM-1-6, Chapter 3, part 1, "Planning Radiological Work" and Chapter 5, part 5, "Radiological Monitoring and Surveys."

2. Information regarding routine activities shall be provided for documentation into the WIDS database.

BASIS: WHC best management practice for ensuring that the correct documentation gets into the WIDS and is available during the RI/FS or RFI/CMS process.

3. Facility operations management shall accurately and permanently mark inactive radioactive waste site boundaries, including unplanned release areas that have become disposal sites, with concrete posts as specified in AC-5-40. Post areas in accordance with WHC-CM-1-6, Chapter 2, part 3, "Posting" and keep records in accordance with 6.3.3 of this section.

BASIS: DOE 5820.2A (III.3.i.[9][b]), as invoked by 5400.5, requires permanent markers be placed for disposal excavations. WHC-CM-1-6, Appendix C, "Radiological Signs and Labels", specifies the applicable WHC posting requirements.

4. Maintenance of the inactive sites shall include control of deep-rooted vegetation that could provide transport of contamination to the surface through plant uptake. The application of herbicides or pesticides may be required and shall conform to the requirements of Section 3.6 of this manual.

BASIS: DOE 5480.11(9.j.) states, "Radiation exposure rates in controlled workplace areas should be reduced to as low as reasonably achievable levels by proper facility design and control." The continued use of herbicides or equivalent techniques to prevent the growth of deep-rooted plants is necessary to reduce radiation exposures of occupational workers and the environment to ALARA. Such control of plants and wildlife is also essential to prevent the loss of control/containment and to prevent the spread of contamination.

6.3.2.3 Nonroutine activities

1. Prior to initiating a nonroutine activity which includes actions on an area greater than 5 acres, such as stabilization, soil removal, fixative, or sealant application in an inactive waste site, the facility manager or landlord shall notify and obtain concurrence from NFM.

BASIS: WHC best management practice for ensuring that the roles and responsibilities for regulatory oversight are in compliance with the authorities delegated in Executive Order 12580, *Superfund Implementation,* the Tri-Party Agreement, 40 CFR 300, 40 CFR 264, and DOE 5400.

2. The facility manager or landlord shall provide a barrier over any contamination source to inhibit radionuclide transport to the surface, or fix the surface contamination in place through the use of sealants, fixatives, or other surface treatments to prevent further spread. The barrier design shall be based on proven techniques that are appropriate for the type of disposal. The adequacy of the barrier shall be verified by demonstrating, through routine surveillance, that surface contamination levels do not exceed the limits established in 6.5.3 of this manual. Such barriers or methods used to inhibit radionuclide transport should not, to the extent practical, diminish the cost-effectiveness of or preclude any future cleanup alternatives that may be associated with the waste site.

   BASIS: Historical and current records show that animals and deep-rooted vegetation have intruded into waste sites and transported radioactive contamination to the surface. Further transport by wind and biota has resulted in several large contaminated areas at Hanford Site. The cost of cleanup and final disposition of these areas is extremely high. Barriers over waste sites prevent intrusion by animals and vegetation, and inhibit radionuclide transport to the surface.

3. Inactive radioactive waste sites shall comply with the performance objectives of Section 7.4 of this manual. Engineered barriers or other effective measures shall also be used to limit biotransport of contamination and personnel exposure.

   BASIS: DOE 5820.2A, as invoked by 5400.5, specifies the performance objectives for DOE low-level radioactive waste sites (III.3.a.).

4. Documentation of nonroutine activities shall be supplied to NFM for inclusion in the WIDS database.

   BASIS: WHC best management practice for ensuring that the correct documentation gets into the WIDS.

6.3.2.4 CERCLA and RCRA past practice site activities

Remediation and restoration activities are the responsibiliiity of BHI and are undertaken for CERCLA or RCRA past practice authorities. They shall be done in accordance with 40 CFR 300 or 40 CFR 264.101 requirements, as applicable. In addition, RCRA and CERCLA past practice unit remediation and restoration activities shall be done in accordance with the processes and requirements established in the Tri-Party Agreement and DOE 5400.4.

BASIS: 40 CFR 300 establishes requirements for actions undertaken for CERCLA. The 40 CFR 264.101 delineates requirements for corrective actions undertaken at permitted RCRA past practice sites. The Tri-Party Agreement establishes additional requirements for past practice activities, including specific requirements regarding implementation of the CERCLA/RCRA past practice

processes. The DOE 5400.4 establishes requirements, policies, and procedures as prescribed by the National Contingency Plan and CERCLA.

6.3.3 Records

1. NFM shall maintain information copies of permanent records of the radiological conditions, status, and characteristics of the surfaces of each site. Other traceable records of historical, radiological, surveillance, and environmental characterization data for each site shall be maintained using the WIDS. Record copies will be kept in accordance with Records Inventory and Disposition Schedules (RIDS).

   BASIS: Monitoring data recordkeeping is addressed in DOE 5400.1 (IV.5.b.[2][c]). Records of surveillances are needed for reporting purposes and to provide bases for future cleanup activities. Section 3.5 ("Waste Information Data System and Hanford Site Waste Management Units Report") of the Tri-Party Agreement requires that data on the current status of waste management units will be maintained on the WIDS.

2. NFM shall investigate and document suspect waste sites and/or unplanned radioactive release sites.

   BASIS: DOE 5820.2A (V.3.a.[1]), as invoked by 5400.5, states that each field organization shall prepare and maintain a complete list of contaminated facilities, both operational and excess, under its jurisdiction. Section 3.5 of the Tri-Party Agreement identifies the WIDS as the database for documenting all waste management units on the Hanford Site.

3. The facility managers or landlords shall maintain documentation of process line isolation (capping off, sealing off, etc.) as specified in paragraphs 4.1.c and 5.1.7 of this section.

   BASIS: WHC best management practice to help ensure proper documentation of process line conditions.

4. Waste site information in the WIDS shall be current. The addition of newly identified units to WIDS shall be initiated upon occurrence or discovery and completed within 90 days.

   BASIS: Section 3.5 of the Tri-Party Agreement requires that data on the current status of waste management units be maintained on the WIDS.

6.4 Decontaminating and Decommissioning Surplus Facilities

The management, decontamination, and decommissioning of radioactive/hazardous waste contaminated facilities at the Hanford Site is the responsibility of BHI.

6.4.1 Requirements

6.4.1.1 Transferring administrative responsibility

When administrative responsibility for a contaminated facility is transferred from one program organization to another, the program organization to which the facility is transferred shall accept full responsibility for surveillance, maintenance, and decommissioning of the facility according to the requirements of DOE 5820.2A. When the transfer of facilities is for specific functional purposes, these shall be in writing and shall identify explicitly the concurrent transfer of specific responsibility for surveillance, maintenance, and decommissioning.

BASIS: DOE 5820.2A V.3.a.(5)

6.4.1.2 Transferring of facilities for decommissioning

The transfer of a facility to BHI for Decommissioning shall be done per the appropriate provisions of the *Surplus Facilities Program Plan*, WHC-EP-0231.

6.4.1.3 Managing contaminated facilities

Radioactively contaminated facilities for which WHC is responsible shall be managed in a safe, cost-effective manner to assure that release of, and exposure to, radioactivity and hazardous/dangerous materials comply with federal and state standards.

Pending their final disposition, all excess/surplus facilities shall have a formalized Surveillance and Maintenance Program (SMP) with documented evidence that checks and inspections are being conducted and the required maintenance is being performed. Organizations with excess/surplus facilities not accepted into the Decommissioning and RCRA Closure Program shall also ensure that these facilities have an auditable SMP.

BASIS: RL 5820.2A, Chapter V, paragraph 3.c.

6.5 Standards for Radioactive Soil Contamination

Radioactive soil contamination limits for WHC are established to ensure that individual public effective dose equivalents (EDE) do not exceed the established limits for any reasonable scenario (such as direct exposure, inadvertent ingestion, inhalation and ingestion of food crops, including animal products). Conservatisms inherent to pathway programming ensure that required degrees of protection are in place. The concentration limits specified apply to the Hanford Site with respect to onsite disposal operations, stabilization and cleanup, decontamination and decommissioning operations, and certification of soils. Limits to minimize occupational exposures and the release of material from the Hanford Site, are controlled by Health Physics, delineated in WHC-CM-4-10, and are not covered in this section.

6.5.1 Responsibilities

1. Managers of projects, facilities, and waste generators shall ensure that the applicable requirements of this section are met.

2. Facility and project managers ensure that the calculations needed for compliance with 6.5 are made and that the appropriate sampling and analyses are performed.

6.5.2 Threshold concentrations

Dose limits and pathway calculations define the radiological soil concentrations below which soil and included rubble do not require controls as site radioactive materials. Soil concentrations below the Table 6.1 and 6.2 values may be left in situ. Table values depend on location, access, mobility, transfer factors, and associated pathway considerations. Therefore, the soil values may not be suitable for other purposes or locations. When there is more than one radionuclide in the soil, the sum of the concentration fractions, known or postulated to table values, must be equal to one or less. (See the the last page of Appendix C for an example of the sum-of-the-concentration fractions calculation.) In all cases, ALARA program procedures shall be observed.

BASIS: Dose limits of DOE 5400.5, Chapter II, paragraph 1.b.

unrestricted release

Values, below which unrestricted release of soils will occur, will be defined in an applicable record of decision.

accessible soils

Hanford soils that are not behind security fences must meet the Table 6.2 values. The values reflect a 10 mrem/yr EDE limit from Hanford operations to the most exposed member of the public.

inaccessible soils

Areas from which the general public is excluded (by fences, posting, patrols, or distance) but which are still subject to meteorological effects, are subject to a 10 mrem/yr operational EDE limit, as reflected in Table 6.1.

BASIS: The values in Tables 6.1 and 6.2 are generated using the GENII software system. This method and the use of Table 6.1 are consistent with DOE 5400.5, paragraphs II.6.(b)(1), IV.2.a.(1), and IV.4.a. Tables 6.1 and 6.2 are constructed to be consistent with the dose constraints of paragraphs II. 1. a, b, and d and 40 CFR 61.92. The "Surface Contamination Guidelines" of the U.S. Nuclear Regulatory Commission Regulatory Guide 1.86 are not used here, as they are inappropriate as soil limits.

Except for unrestricted released areas, other soil and operational sources of public exposure must also be taken into account when considering the total allowable doses to the public.

BASIS: DOE 5400.5, paragraph II.1.a.(2), requires that doses to members of the public from all exposure modes that can contribute significantly to the total dose shall be considered. The DOE 5400.5, paragraph IV.3.a, limits released real property to 100 mrem/year EDE. However, once released, the property will no longer be under the jurisdiction of the DOE, but rather the State of Washington.

Compliance with the tables shall be determined by a combination of statistically supported surface scans and surveys, augmented by sampling within the area. Field surveys and sampling shall follow a documented plan implementing the requirements in this section.

6.5.3 Posting soils

Irrespective of the values in Tables 6.1 and 6.2, soils may require posting for occupational protection purposes. Posting for occupational purposes shall be in accordance with WHC-CM-1-6.

BASIS: WHC-CM-1-6, requires posting and thereby control of occupational dose rates and, in turn, maintains control of total annual doses as required by DOE 5480.11.

6.5.4 Criteria for disposal of contaminated soils

Any Hanford soils containing concentrations of radionuclides in excess of the table values (see Tables 6.1 and 6.2) applicable to the location and condition of the soil in question shall be documented and managed as radioactive waste or remediated to below the applicable table values. Where mixtures of radionuclides exist, an area shall be managed as radioactive waste or remediated unless the sum of each radionuclide's concentration divided by its appropriate table value is equal to, or less than, one. (Unity rule as defined in Appendix A of this manual with an example found at the end of Appendix C.)

Movement of these soils in excess of CERCLA reportable quantities constitutes a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) reportable action where such action causes offsite radiological dose limits to be exceeded or where they are not part of a planned, programmatic activity (see Sections 5.3 and Section 5.2.a.[4]). The original spill, and changes to it, should be entered into the Waste Information Database System (WIDS) through ECS, as required by Section 5.4 of this manual.

Management shall take measures to prevent the migration of contaminated soil.

BASIS: DOE 5400.5, paragraph 6.b.

The dose from Hanford Site operations to any offsite individual resulting from all release pathways (including the liquid and airborne release pathways and those involving groundwater or surface water used for drinking, irrigation, or recreation) shall not exceed a committed

EDE of 100 mrem/yr. All public exposures from the management and storage of radiological waste shall not exceed an EDE of 25 mrem/yr or more than 75 mrem/yr committed EDE for any organ. Public airborne and drinking water doses are limited to 10 mrem and 4 mrem EDE per year respectively. Any doses exceeding any DOE limits of 10 mrem EDE in a year require reporting through WHC Effluent and Emission Monitoring (EEM) to the Deputy Assistant Secretary of the Environment at DOE and EPA.

BASIS: DOE 5400.5, Chapter II, paragraphs 1.a., 1.c., 1.d., and II.7; DOE 5820.2A, Chapter III, as invoked by 5400.5, paragraph 3.a.(2).

Excavated soil (e.g., for pipe installation), though containing radionuclides, may be returned to its original location if the action is consistent with this section and ALARA policy principles, and if the soil is not otherwise regulated as a dangerous waste. IF the excavation of soil containing radioactive material constitutes a modification to an existing waste site, THEN complete a revision to WIDS. IF the excavation is not part of an existing waste site, THEN initiate a suspect waste site investigation and WIDS entry.

6.5.5 Naturally occurring radioactive materials

1. Soils containing wastes of naturally occurring radionuclides whose specific activity is below 2 nCi/g shall be exempt from the requirements of this section.

   BASIS: WHC-CM-5-16, Section 2, paragraph 8.

2. Small quantities of soils containing wastes of naturally occurring radioactive materials whose specific activity is above 2 nCi/g shall be disposed of as low-level waste (LLW) in accordance with Section 7.2 this manual, except for the following:

   a. smoke detectors
   b. watches and clocks using radioluminescent paint.

   BASIS: WHC-CM-5-16, Section 2, paragraph 8.

6.5.6 Determining average sample concentrations

The concentration of radionuclides in a soil sample is influenced by the sampling techniques and the volume of the sample. When using Tables 6.1 and 6.2, the sample dimensions and mass over which concentrations may be averaged should be consistent with the scenario's span in the supporting documentation, WHC-SD-EN-TI-070, Rev. 0. Dilution of a sample with soil from outside the sphere of the radiological influence and scenario boundaries is prohibited.

6.5.7 Area hot-spot criteria

Concentrations of radionuclides in any region having an area (A) no more than 25 m^2 may exceed the table values (see Tables 6.1 and 6.2), but not by more than a factor of $(100m^2/Am^2)^{1/2}$. In addition, ALARA principles shall be applied to hot-spot removal, and in no case shall any source that exceeds 30 times the table value be left in place, irrespective of the average concentration in the soil.

BASIS: DOE 5400.5 [IV.4.a.(1)]; for ALARA, (I.4).

NOTE: Where there is more than one radionuclide or more than one hot-spot in a 100 m^2 area, the hot spots may remain if the sum of each radionuclide's concentration divided by its table value times $(100m^2/Am^2)^{1/2}$ equals one or less.

6.6 Designated Reviewing Organizations

Organizations listed below are responsible for this process. If you have any questions about this procedure, please contact the process owner.

Designated Reviewing Organizations	CMPOC
Projects Department	EA/PRJ
Compliance Assurance	ESQ/CA
Health Physics	ESQ/HP
Industrial Health, Safety, & Fire Protection	ESQ/HSF
Quality Assurance	ESQ/QA
Emergency Preparedness	ESQ/EP
B Plant	OPS/BP
Fuel Storage Basins	OPS/FSB
Plutonium Finishing Plant	OPS/PFP
PUREX Plant	OPS/PRX
ERMC Transition	RR/ERM
Environmental Restoration Operations	RR/ERO
Liquid Waste Disposal	RR/LWD
Special Projects	RR/SP
Solid Waste Disposal	RR/SWD
Tank Waste Remediation System	TWR

6.7 References

NOTE: For additional references, see Appendix B of this manual.

DOE 4300.1C, "Real Property Management."

DOE 5480.11, "Radiation Protection for Occupational Workers."

DOE 5820.2A, "Radioactive Waste Management."

DOE-RL 89-05, "Implementation Plan for Hanford Site Compliance with U.S. Department of Energy 5820.2A."

AC-5-40, *Hanford Plant Standard.*

NRC Guide 1.86, "Surface Contamination (Table 6.1) Guidelines."

WHC-CM-1-3, *Management Requirements and Procedures*, MRP 5.14, "Occurrence Reporting and Processing of Operations

WHC-CM-3-5, *Document Control and Record Management Manual.*

WHC-CM-4-11, *ALARA Program Manual.*

WHC CM-5-16, *Solid Waste Management.*

WHC-CM-6-8, *Hanford Restoration Operations Administrations.*

WHC-SD-EN-TI-070, *Soil Concentration Limits for Accessible and Inaccessible Areas.*

Table 6-1. Inaccessible Soil Concentration Limits, pCi/g.

	100-BDKN	100-F,H	200-W	200-E	300 Area	400 Area
H 3	1.4 E+08	7.4 E+07	3.7 E+08	2.0 E+08	9.5 E+06	1.4 E+07
C 14	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05
Fe55	9.7 E+06	9.7 E+06	3.6 E+10	1.9 E+10	1.0 E+07	1.4 E+09
Co58	9.8 E+06	9.8 E+06	8.1 E+09	4.3 E+09	1.2 E+07	3.1 E+08
Co60	9.9 E+05	9.9 E+05	5.7 E+08	3.0 E+08	1.0 E+06	9.9 E+06
Ni63	1.5 E+08	1.5 E+08	6.9 E+09	6.9 E+09	1.5 E+08	2.2 E+08
Sr90 *	8.3 E+05	8.3 E+05	2.2 E+08	1.2 E+08	8.3 E+05	8.4 E+06
Tc99	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07
Ru106 *	2.0 E+07	2.0 E+07	5.7 E+08	3.0 E+08	1.5 E+07	2.2 E+07
Sb125 *	9.1 E+06	9.1 E+06	5.7 E+09	3.0 E+09	9.2 E+06	1.1 E+08
I 129	2.8 E+05	2.8 E+05	2.8 E+05	2.8 E+05	2.2 E+05	2.8 E+05
Cs134	1.7 E+04	1.7 E+04	2.5 E+08	1.4 E+08	2.4 E+04	9.7 E+06
Cs137 *	1.7 E+04	1.7 E+04	3.5 E+08	1.8 E+08	1.7 E+04	1.3 E+07
Ce144 *	1.4 E+06	1.4 E+06	7.4 E+08	4.0 E+08	1.9 E+06	2.8 E+07
Pm147	3.4 E+07	3.4 E+07	7.4 E+09	4.0 E+09	3.5 E+07	2.8 E+08
Eu152	4.5 E+06	4.5 E+06	1.2 E+09	6.2 E+08	4.6 E+06	4.5 E+07
Eu154	3.3 E+06	3.3 E+06	8.8 E+08	4.7 E+08	3.3 E+06	3.4 E+07
Eu155	2.3 E+07	2.3 E+07	6.9 E+09	3.7 E+09	2.4 E+07	2.6 E+08
Ra226 *	1.3 E+05	1.3 E+05	2.1 E+05	2.1 E+05	1.3 E+05	1.4 E+05
Ac227 *	2.4 E+03	2.4 E+03	5.4 E+04	2.9 E+04	1.4 E+03	2.1 E+03
Th232 *	2.0 E+04	2.0 E+04	2.0 E+04	2.0 E+04	4.7 E+03	7.1 E+03
U 232 *	5.5 E+04	5.5 E+04	1.4 E+05	1.4 E+05	9.9 E+03	1.5 E+04
U 233	4.5 E+05	4.5 E+05	4.5 E+05	4.5 E+05	6.7 E+04	1.0 E+05
U 234	4.6 E+05	4.6 E+05	4.6 E+05	4.6 E+05	6.9 E+04	1.0 E+05
U 235 *	4.9 E+05	4.9 E+05	4.9 E+05	4.9 E+05	7.3 E+04	1.1 E+05
U 236	4.9 E+05	4.9 E+05	4.9 E+05	4.9 E+05	7.1 E+04	1.1 E+05
U 238 *	4.7 E+05	4.7 E+05	4.7 E+05	4.7 E+05	7.7 E+04	1.2 E+05
Np237 *	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02
Pu238	1.3 E+04	1.3 E+04	8.8 E+05	4.7 E+05	1.3 E+04	3.4 E+04
Pu239	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04
Pu240	1.2 E+04	1.2 E+04	1.4 E+04	1.4 E+04	1.2 E+04	1.2 E+04
Pu241	6.1 E+05	6.1 E+05	4.2 E+07	2.2 E+07	6.1 E+05	1.2 E+06
Am241	2.5 E+04	2.5 E+04	7.4 E+05	4.0 E+05	1.9 E+04	2.8 E+04

NOTE: Asterisks mark nuclides with progeny which are assumed to be present in equilibrium amounts. However, U-234 was not included in the U-238 limits. For supporting references see WHC-SD-EN-TI-070.

Table 6-2. Accessible Soil Concentration Limits, pCi/g.

	100-BDKN	100-F,H	200-W	200-E	300 Area	400 Area
H 3	1.4 E+08	7.4 E+07	3.7 E+08	2.0 E+08	9.5 E+06	1.4 E+07
C 14	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05
Fe55	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05
Co58	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01
Co60	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00
Ni63	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07
Sr90 *	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03
Tc99	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06
Ru106 *	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01
Sb125 *	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01
I 129	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04
Cs134	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
Cs137 *	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01
Ce144 *	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02
Pm147	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06
Eu152	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01
Eu154	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01
Eu155	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
Ra226 *	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
Ac227 *	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
Th232 *	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00
U 232 *	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
U 233	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
U 234	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
U 235 *	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02
U 236	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02
U 238 *	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02
Np237 *	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01
Pu238	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02
Pu239	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02
Pu240	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02
Pu241	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04
Am241	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02

NOTE: Asterisks mark nuclides with progeny which are assumed to be present in equilibrium amounts. However, U-234 was not included in the U-238 limits. For supporting references see WHC-SD-EN-TI-070.

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10.0 REGULATORY PERMITTING

10.1 Purpose

Section 10.0 provides an overview of the regulatory permitting process necessary to ensure compliance with environmental requirements. This section also provides a summary of permitting requirements and responsibilities. Section 10.0 cross-references other sections of the manual where specific environmental permitting requirements are identified.

10.2 Scope

The regulatory permitting process includes notification, approval, and permitting activities required for all Westinghouse Hanford Company (WHC) managed facilities, programs, projects, and operations. The scope includes documentation associated with the treatment, storage, and/or disposal (TSD) of RCRA/dangerous waste, water discharges, air emissions, and other activities such as solid waste landfill permitting. A list of environmental documentation which may be needed for permitting activities at WHC follows:

1. **TSD of RCRA/dangerous waste**

   a. RCRA/Dangerous Waste Notice of Intent (NOI)
   b. Part A Permit Application
   c. Part B Permit Application
   d. Closure/Postclosure Plan
   e. Postclosure Permit Application
   f. Research, Development, and Demonstration (RD&D) Permit Application
   g. Notice of Deficiency (NOD) Comment Incorporation Documentation
   h. Exemption Request or Petition
   i. Permit Application Withdrawal Request/Procedural Closure Request
   j. Permit Modification Requests
   k. TSCA Permit Application

2. **Water discharges**

   a. State Waste Discharge Permit Application
   b. National Pollutant Discharge Elimination System Permit Application
   c. Dredge and Fill Permit Application
   d. Hydraulic Project Approval Request
   e. Shoreline Management Act Approval Request
   f. Water Quality Modification Approval Request
   g. Aquatic Lands Lease Request
   h. Hanford Reach Study Act Notification Request
   i. Septic Disposal System Approval Request
   j. Underground Injection Control Program Registration
   k. Delisting Petition Request
   l. Review Comment Incorporation Documentation

3. Air emissions

   a. Radioactive Air Emissions Program Notice of Construction (NOC)
   b. National Emission Standards for Hazardous Air Pollutants NOC
   c. New Source Review Documentation
   d. Toxic Air Pollutants NOC
   e. Prevention of Significant Deterioration NOC
   f. Review Comment Incorporation Documentation

4. Solid waste handling

   a. Solid Waste Handling Permit Application
   b. Review Comment Incorporation Documentation

10.3 Definitions

Definitions associated with the regulatory permitting process are in Appendix A. The term "permitting" is used here in a broad sense to refer to notifications, approvals, and/or permitting activities. The term "permitting documentation" is used to refer to permit applications, notices of construction, registration forms, closure plans, and other required regulatory documents.

10.4 Responsibilities

10.4.1 Facility, project, and program manager and cognizant engineer

1. Ensure that applicable permitting requirements have been identified by contacting Environmental Services.

2. Ensure that funding for required permitting activities is provided.

3. Provide facility-specific information to Environmental Services for the preparation of required permitting documentation.

4. Ensure coordination of permitting reviews and document preparation with Environmental Services.

5. Ensure required permitting documentation and regulatory approvals before the start of any field work or construction.

10.4.2 Environmental Services

1. Establish and maintain standardized formats and procedures for all permitting documentation.

2. Identify, verify, and evaluate permitting requirements for existing or planned TSD units and other facilities and projects.

3. Support a peer review and sign off of permitting requirements for new projects.

4. Develop permitting policies, strategies, cost estimates, and schedules for existing or planned TSD units, and other facilities and projects.

5. Develop permitting plans, as appropriate, or assist in the development of permitting plans.

6. Prepare or coordinate preparation of necessary permit applications, closure plans, notifications, requests for regulatory approval, and supporting documentation, so that the resultant submittals meet regulatory requirements and Hanford Site needs.

7. Assign lead responsibility for review of all necessary permit applications, closure plans, notifications, requests for regulatory approval, and supporting documentation.

8. Coordinate and participate in negotiations with federal, state, and local agencies for the establishment of permitting priorities and schedules and the resolution of permitting issues.

9. Participate in the negotiation of compliance plans and agreements involving permitting activities with federal, state, and local regulatory agencies.

10. Respond to NODs and federal, state, and local agency requests for permitting documentation and associated information.

11. Coordinate the permit modification process.

12. Maintain a permitting file index, so that all permitting documentation can be accessed in a reasonable time frame.

13. Analyze the impact to permitting of changes to operating documents, changes to existing regulations, or the issuance of new regulations.

14. Prepare and/or review State Environmental Policy Act (SEPA) Environmental Checklists, or other NEPA documentation, supporting permitting documentation.

15. Provide or arrange training required for permitting activities.

10.4.3 Environmental Services Permitting Lead

1. Identify members of the permitting team.

2. Provide review, comment, and approval recommendation for supporting documentation.

3. Coordinate the development of submittals to the regulators and coordinate the development of responses to regulator review comments.

4. Arrange for a certification meeting with the WHC President for permitting documentation requiring certification.

5. Status the regulatory review, approval, or permit preparation process and keep the facility, project, or program manager and cognizant engineer informed of any feedback or comments from the regulators.

6. Prepare, or support the preparation of, permitting plans where required.

7. Maintain contact with regulatory agencies.

8. Ensure that all permitting requirements for existing projects and for the modification of existing facilities are identified.

10.4.4 General Counsel

1. Assist Environmental Services to ensure that all permitting requirements are legally met.

2. Review permitting documentation, as appropriate, to identify and address legal concerns.

10.4.5 Engineering Configuration Management

1. Administer the configuration management system necessary to control documentation changes (Section 10.7).

10.4.6 Documentation and Records Management

1. Assist Environmental Services to ensure that copies of records of all permitting documentation are maintained in a retrievable manner.

2. Maintain the record copy of all permit applications and permit modification requests requiring certification.

3. Maintain the record copy of permitting correspondence transmitted to RL or received from regulatory agencies.

10.5 Requirements

Environmental compliance requirements for permitting documentation and approvals are listed with their manual locations in Section 9.0, Table 9.1.

10.6 General Permitting Procedure

The preparation of permitting documentation generally follows the steps outlined in the General Permitting Procedure provided as Figure 10.1. Customization of this procedure to specific permitting areas is carried out in subtier procedures and/or desk instructions.

10.6.1 TSD of RCRA/dangerous waste

Overview: For purposes of RCRA, the Hanford Site is one waste management facility consisting of over 60 units that treat, store, and/or dispose of dangerous and/or mixed (dangerous and radioactive) waste. Permitting is required for these TSD units. Ecology has been authorized to administer the RCRA Program and all but the Land Disposal Restriction (LDR) and Waste Minimization provisions of the Hazardous and Solid Waste Amendments (HSWA). Ecology administers the program through their Dangerous Waste Regulations. The LDR and waste minimization provisions of the HSWA are administered by the EPA.

In accordance with applicable requirements, 11 types of permitting documentation may be required to address RCRA and the Dangerous Waste Regulations:

1. RCRA/Dangerous Waste NOI - for operating TSD units
2. Part A Permit Application - for TSD units that are operating, closed, or planning to close
3. Part B Permit Application - for operating TSD units
4. Closure/Postclosure Plan - for TSD units that are operating, closed, or planning to close
5. Postclosure Permit Application - for TSD units that are operating, closed, or planning to close
6. RD&D Permit Application - for units that are conducting RD&D activities
7. NOD Comment Incorporation Documentation
8. Exemption Requests or Petitions
9. Permit Application Withdrawal Request/Procedural Closure Request
10. Permit Modification Request
11. TSCA Permit Application

The process and schedules for the preparation of Part B permit applications and closure/postclosure plans are addressed specifically in the Tri-Party Agreement, the Hanford Facility RCRA Permit, and Figure 10-2. As noted previously, for purposes of RCRA, the Hanford Site is considered to be one facility consisting of over 60 TSD units. Since all of the TSD units cannot be permitted simultaneously, Ecology and the EPA have issued the initial permit for less than the entire Hanford Facility. The permit will eventually grow into a single permit for the entire Hanford Facility. Any TSD units that are not included in the initial permit are to be incorporated through a permit modification.

BASIS: The requirements for the TSD of RCRA/dangerous waste are discussed more fully in Sections 7.5 and 7.10 and summarized in Section 9.0, Table 9.1. The permitting process outlined is based on provisions contained in RCRA (42 USC 6901 et seq., and 40 Code of Federal Regulations (CFR) 260 through 271 as amended) and in Washington Administrative Code (WAC) 173-303. The process is based on guidance provided in the Tri-Party Agreement and by the regulatory agencies (the RCRA Part B Checklist prepared by the U.S. Environmental Protection Agency [EPA] and the Dangerous Waste Part B Checklist prepared by the Washington State Department of Ecology [Ecology]; Unit Managers Meetings held with the regulators); by the Hanford Facility RCRA Permit; and by the RCRA Permit Implementation Handbook.

10.6.1.1 RCRA/dangerous waste NOI

Overview: A RCRA/Dangerous Waste NOI is a vehicle for providing notification to Ecology, local communities, and the public that: (1) the siting of a TSD unit is being considered, or (2) an existing TSD unit, under interim or final status, intends expansion or modification. Expansion includes the enlargement of the land surface of an existing TSD unit, the addition of a new RCRA/dangerous waste management process, or an increase in the overall design capacity of an existing RCRA/dangerous waste management process at the TSD unit. The content of an NOI includes general information about the TSD unit owner/operator, the type of TSD unit, the type of waste to be managed, and information on compliance with siting standards. Modification of an existing TSD unit requires following protocols given in Section 9.0.

BASIS: The requirements for a RCRA/Dangerous Waste NOI are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. The NOI preparation is based on provisions contained in WAC 173-303-281.

10.6.1.2 Part A permit application

Overview: The Part A permit application provides a brief definition of the processes for the TSD of RCRA/dangerous waste, design capacity of such processes, and specific RCRA/ dangerous waste to be handled at a TSD unit. As previously noted, the Hanford Site is one facility consisting of over 60 separate TSD units. A single Part A permit application was submitted for the entire Hanford Facility. This Part A permit application consists of three Form 1's (for the three contractors who co-operate TSD units with RL, i.e., WHC, PNL, and BHI) and over 60 Form 3's, one for each TSD unit located on the Hanford Facility. The Form 3, *Dangerous Waste Part A Permit Application*, is available on HLAN on the "jetform" system. Part A Form 3's submitted to the regulators on or before May 23, 1988, qualified a TSD unit as an existing, interim status unit.

BASIS: The requirements for preparation of a Part A permit application are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. Part A preparation is based on provisions contained in WAC 173-303-805 and in the Part A forms provided by Ecology.

10.6.1.3 Part B permit application

Overview: The Part B permit application provides a detailed definition of the processes to be used for the TSD of RCRA/dangerous waste, the design capacity of such processes, and the specific RCRA/dangerous waste to be handled at a TSD unit. The contents of a Part B permit application are outlined below:

- Chapter 1 - Introduction
- Chapter 2 - Facility Description and General Provision
- Chapter 3 - Waste Characterization
- Chapter 4 - Process Information
- Chapter 5 - Groundwater Monitoring
- Chapter 6 - Procedures to Prevent Hazards
- Chapter 7 - Contingency Plan
- Chapter 8 - Training Plan
- Chapter 9 - Exposure Information Report
- Chapter 10 - Waste Minimization Plan
- Chapter 11 - Closure/Postclosure Plan
- Chapter 12 - Reporting and Recordkeeping
- Chapter 13 - Other Relevant Laws
- Chapter 14 - Certification
- Chapter 15 - References.

The detailed information provided in the Part B permit application is used by the regulatory agency(s) to prepare a final status permit for the operation of a TSD unit. Existing TSD units can continue to operate without a final Part B permit when interim status conditions are met. As interpreted by Ecology, new TSD units (unless granted interim status) must have a final Part B permit before the initiation of construction activities. As previously noted, the Hanford Site is one waste management facility comprised of over 60 separate TSD units; about half of these units will continue to operate and will require Part B permit application submittals. Part B permit applications are submitted to the regulatory agencies as scheduled in the Tri-Party Agreement.

BASIS: The requirements for preparation of a Part B permit application are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. Part B preparation is based on provisions contained in WAC 173-303-806, in Part B checklists provided by Ecology and EPA (available on HLAN), and on discussions held with Ecology and EPA.

10.6.1.4 Closure/postclosure plan

Overview: For purposes of RCRA, the Hanford Site is one facility consisting of over 60 separate TSD units; about half of these units will be closed and only require closure/postclosure plans. All operating TSD units require that a closure/postclosure plan be in the Part B permit application (Section 10.6.1.3). Section 10.6.1.4 covers those TSD units for which a Part B permit application will not be prepared.

The closure/postclosure plan provides a detailed discussion of the approach to be followed to close a TSD unit, including a discussion of closure strategy (e.g., clean closure versus landfill

closure), closure performance standards, and closure activities. For TSD units subject to closure as a landfill, a postclosure plan is required. A closure/postclosure plan is submitted to the regulatory agencies as scheduled in the Tri-Party Agreement.

BASIS: The requirements for preparation of a closure/postclosure plan are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. Closure/postclosure plan preparation is based on provisions contained in WAC 173-303-610 and on discussions held with Ecology and EPA.

10.6.1.5 Postclosure permit application

Overview: The postclosure permit application follows the development of a closure/postclosure plan and provides a detailed discussion of the approach to be followed to close a TSD unit as a landfill. This discussion includes a review of closure strategy, closure performance standards, and closure activities, including cover design and groundwater monitoring.

BASIS: The requirements for preparation of a postclosure permit application are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. A postclosure permit application is only required for TSD units that operated after 1982. Postclosure permit application preparation is based on provisions contained in WAC 173-303-610.

10.6.1.6 RD&D permit application

Overview: The RD&D permit application is prepared for units that propose to use an innovative and experimental RCRA/dangerous waste treatment technology or process. The RD&D permit application must include information similar to that included in a Part B permit application. The level of detail must be sufficient to ensure that protection of human health and the environment will be maintained. The content of the RD&D permit application needs to emphasize that control measures and contingency measures are in place to address such concerns.

BASIS: The requirements for preparation of an RD&D permit application are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. The RD&D permit application preparation is based on provisions contained in WAC 173-303-809. An RD&D permit covers technology or process activities for which standards have not been promulgated under WAC 173-303-500 through 173-303-670.

10.6.1.7 NOD comment incorporation documentation

Overview: A Part B permit application, closure/postclosure plan permit application, or RD&D permit application is reviewed by Ecology and EPA in accordance with a process and time frame established in the Tri-Party Agreement and as outlined in Figure 10-2 and Table 10-1, respectively. Review comments (NOD comments) are returned to RL and WHC to address.

BASIS: The basis for the NOD comment incorporation process is established in the Tri-Party Agreement.

10.6.1.8 Exemption request or petition

Overview: The EPA or Ecology may be petitioned to modify, exempt, or revoke any provision of their RCRA/dangerous waste regulations. This section also includes requests for variances and interim approvals.

BASIS: The general requirements for preparation of a RCRA/dangerous waste exemption request or petition are found in 40 CFR 260, Subpart C, and WAC 173-303-910, respectively. Specific requirements, e.g., exemption from liner/leachate system requirements, are found at various locations throughout the regulations depending upon the type of request.

10.6.1.9 Permit application withdrawal request/procedural closure request

Overview: In some cases, a permit application may have been submitted for a unit that has never been used, nor is planned to be used, for the TSD of dangerous waste, except as provided by WAC 173-303-200 or 173-303-802. In such cases, a request to withdraw a permit application, or a procedural closure request may be pursued.

BASIS: The general requirements for withdrawal of a RCRA/dangerous waste permit application are found in 40 CFR 270, Subparts D and E, and in WAC 173-303-830(2). Requirements for procedural closure of a TSD unit are found in Section 6.3.3 of the Tri-Party Agreement.

10.6.1.10 Permit modification requests

Overview: Now that a RCRA/dangerous waste permit has been issued for the Hanford Facility by EPA and Ecology, permit modifications must be requested in accordance with applicable requirements. These requirements apply to RCRA/dangerous waste Part B permits and to postclosure permits. RCRA/dangerous waste permit modification requests will be categorized by Ecology and EPA as Class 1, Class 2, or Class 3 (with Class 3 generally involving the most extensive modifications).

BASIS: The basis for the RCRA/dangerous waste permit modification process is established in WAC 173-303-830. Documentation supporting permit modification requests must be prepared in accordance with Section 10.7, Configuration Control.

10.6.1.11 TSCA permit application

Overview: A TSCA permit application is needed to seek approval to operate a chemical waste landfill for the disposal of polychlorinated biphenyl (PCB) waste. In many cases, requirements for dangerous and hazardous waste landfills are identical to or more stringent than the requirements for chemical waste landfills under TSCA. In the TSCA permitting of landfills at the Hanford Site, the regulators have specified that compliance with TSCA can be satisfied through compliance with the RCRA/dangerous waste requirements.

BASIS: The requirements for preparation of a TSCA permit application are identified in Section 7.10 and summarized in Section 9.0, Table 9.1. The TSCA requirements for a chemical waste landfill are specified in 40 CFR 265 and WAC 173-303.

10.6.2 Water discharges

Overview: In accordance with applicable requirements, the following 11 types of permitting documentation may be required to address water discharge regulations:

1. State Waste Discharge Permit Application
2. National Pollutant Discharge Elimination System Permit Application
3. Dredge and Fill Permit Application
4. Hydraulic Project Approval Request
5. Shoreline Management Act Approval Request
6. Water Quality Modification Approval Request
7. Aquatic Lands Lease Request
8. Hanford Reach Study Act Notification Request
9. Septic Disposal System Approval Request
10. Underground Injection Control Program Registration
11. Delisting Petition Request under RCRA.

The process for preparing water discharge permitting documentation follows the General Permitting Procedure outlined in Figure 10-1.

BASIS: The requirements for water discharges are identified in Section 8.3 and summarized in Section 9.0, Table 9.1. The permitting documentation preparation discussed is based on regulations cited in these requirements and on guidelines provided by, and discussions held with, EPA, Ecology, the State of Washington Department of Health (DOH), and local agencies.

10.6.2.1 State waste discharge permit (SWDP)

Overview: A SWDP application is used to obtain regulatory approval for industrial discharges to land. The SWDP application provides a description of:

1. The manufacturing processes, products, and/or service activities
2. Plant operational characteristics including a description of any wastewater treatment
3. Water consumption and water loss
4. Wastewater characterization information
5. Disposal site assessment information
6. Information pertaining to the storage of raw materials, products and wastes
7. Stormwater management.

BASIS: The requirements for a SWDP are identified in Section 8.3.5 and summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on provisions of WAC 173-200, 173-216, and 173-240, and Ecology Consent Order #DENM91-177.

10.6.2.2 National Pollutant Discharge Elimination System (NPDES) approvals, permit applications, or notifications

Overview: A NPDES permit application is used to obtain regulatory approval for the discharge of pollutants from any point source into waters of the United States (as defined in 40 CFR 122.2). The NPDES permit application consists of a general Form 1, providing basic information about the facility, and any one of the following four application types:

1. Form 2C - applies to existing manufacturing and commercial operations
2. Form 2D - applies to new sources and new discharges
3. Form 2E - applies to facilities that discharge only non-process wastewater
4. Form 2F - applies to stormwater discharge.

In general, the permit application package provides a description of:

- The nature of the facility seeking the permit
- Location of the facility outfalls
- Sources of intake water production levels
- Pollutants contained in the effluent discharges from the facility
- Stormwater management.

BASIS: The requirements for a NPDES Permit are identified in Section 8.3.3 and summarized in Section 9.0, Table 9.1. Permit preparation is based on provisions contained in 40 CFR 122 and on discussions held with EPA Region 10.

10.6.2.3 Permit applications/approvals required for activities involving construction in or near the Columbia River

Overview: A permit from the U.S. Army Corps of Engineers (COE) is required for activities involving the dredging or filling of the Columbia River below the normal high water mark. The Hanford Reach is currently under study for possible inclusion in the National Wild and Scenic Rivers System, and consequently, nationwide permits are not applicable in the study area. Individual permits or letters of permission (LOP) must be obtained for the activities. A hydraulic project approval (HPA) from the State of Washington Department of Fisheries (Fisheries) is required for activities which alter the flow or bed of the river, even on a temporary basis.

Approval pursuant to the Shoreline Management Act (SMA) from Benton County is required for activities taking place on the shoreline of the river (generally within 200 feet), in areas

where the land is not owned in fee by the federal government. The DOE owns in fee the uplands and the shorelines along the Columbia River of the Hanford Site. The DOE also owns in fee the uplands, but not the shoreline, on Wooded, Savage, and Locke Islands. Therefore, the SMA applies to the shoreline on Wooded, Savage, and Locke Islands and to the shoreline and uplands on all other islands of the Columbia River.

The contents of the applications/approvals are very similar and generally include:

1. Description of the proposed activity
2. Location of the proposed activity
3. Duration of the activity
4. Other approvals requested and their status (pending, approved, denied)
5. Any measures planned to mitigate the impact of the activity on the environment.

BASIS: The requirements for approvals for activities involving construction in or near the Columbia River are summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on the regulations and discussions held with the COE, Fisheries, and Benton County.

10.6.2.4 Approvals required for activities involving discharge to the Columbia River, excluding the NPDES

Overview: An aquatic lands lease (ALL) is required for the use of the bed of the Columbia River on a permanent or semipermanent basis. At Hanford, this primarily includes outfall structures. The water quality modification (WQM) is required for permanent or temporary changes in the quality of the Columbia River. The ALL application and the WQM application provide:

1. Description of the proposed discharge
2. Location of the proposed activity
3. Duration of the discharge
4. Other approvals requested and their status (pending, approved, denied)
5. Any measures planned to mitigate the impact of the activity on the environment.

BASIS: The requirements for approvals for activities involving discharges to the Columbia River, excluding the NPDES, are summarized in Section 9.0, Table 9.1. An ALL and WQM are required for any permanent or temporary discharge of materials (including wastewater) to the Columbia River. Permitting documentation preparation is based on the regulations and discussions held with the Washington State Department of Natural Resources (for the ALL process) and Ecology (for the WQM process).

10.6.2.5 Hanford Reach Study Act documentation

Overview: Public Law (PL) 100-605 officially designated the Hanford Reach of the Columbia River as a study area for possible inclusion in the National Wild and Scenic Rivers System. The Hanford Reach was so designated on November 4, 1988, and the duration of the study period is 8 years. Throughout the river study period, documentation may be required for any new projects or activities performed within one quarter mile of the high-water line of the 51-mile segment of the Columbia River, from river miles 396 to 345 (the study area). The Secretary of the U.S. Department of the Interior is charged with responsibility for conducting the river study. The National Park Service (NPS), acting for the Secretary of the Interior, and the RL have informally agreed on the process by which the NPS is to be notified of activities having the potential to affect the Hanford Reach of the Columbia River.

BASIS: The requirements for approvals for activities within the study area identified in the Hanford Reach Study Act are summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on PL 100-605 and negotiations with the NPS.

10.6.2.6 Septic disposal system approval

Overview: All installations of new septic systems or modifications to existing septic systems on the Hanford Site must be approved by state regulatory agencies. If the design capacity of the new/modified septic disposal system is under 14,500 gallons per day, the regulator is DOH. To receive approval for septic disposal systems under 14,500 gallons per day, the requirements in WAC 246-272, "On-site sewage systems," must be fulfilled. These requirements include submittal of a preliminary engineering report, final engineering report, and design documents, and field inspections prior to finalizing disposal site location and prior to beginning construction. If the design capacity of the new/modified septic disposal system is over 14,500 gallons per day, the regulator is Ecology. Septic systems over 14,500 gallons per day require a permit pursuant to WAC 173-216, in addition to the requirements in WAC 246-272 (Section 10.6.3.1).

BASIS: The requirements for septic disposal system permits are identified in Section 8.3 and summarized in Section 9.0, Table 9.1. The permitting documentation preparation procedure outlined in 10.6.2.6 is based on provisions contained in WAC 246-272 and WAC 173-216, and on discussions held with DOE and Ecology.

10.6.2.7 Underground injection control program registration

Overview: Underground injection is the subsurface emplacement of fluids through a bored, drilled, driven shaft or dug hole, whose depth is greater than the largest surface dimension. Class V underground injection wells include all underground injection wells not included in Classes I, II, III, or IV. Class V wells are a "catch all category" and are regulated by rule until permitting programs are developed for specific types of Class V wells. By definition, Class V wells receive liquid wastes that are not hazardous as defined by WAC 173-303 and contain radionuclides below the concentrations listed in 10 CFR 20, Appendix B, Table II. Class V underground injection wells are regulated by WAC 173-218 under 40 CFR Parts 144,

144, and 146 pursuant to Part C of the Federal Safe Drinking Water Act. Hanford Site Class V injection wells encompass all wells that inject fluids as described above including, but not limited to, the following:

1. Dry wells
2. Reverse wells
3. French drains
4. Steam traps.

All existing Class V underground injection wells which are not registered with Ecology must be registered. The only new type of Class V underground injection well Ecology authorizes is a well which receives uncontaminated stormwater discharges or return flow from a ground water heat pump which originated as groundwater.

BASIS: The requirements for the Underground Injection Control Program are identified in Section 8.3 and summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on provisions contained in WAC 173-303, 10 CFR 20, WAC 173-218, and 10 CFR Parts 144, 145, and 146, and on discussions held with Ecology.

10.6.2.8 Delisting petition

Overview: A delisting petition is prepared to exclude waste produced at a particular facility from regulation under 40 CFR 261. The delisting petition must demonstrate that waste produced at a particular generating facility does not meet any of the criteria under which the waste was or could be designated as hazardous.

In general, the petition provides a description of the following:

1. Administrative information
2. Description of the manufacturing or treatment process
3. Waste stream management information
4. Sampling and testing information
5. Sample data and an explanation of why the waste is not hazardous.

BASIS: Delisting petition preparation is based on provisions contained in 40 CFR 260.20 and 260.22, and on discussions held with EPA Headquarters.

10.6.2.9 Review comment incorporation documentation

Overview: Water discharge permitting documentation is reviewed by the appropriate regulatory agency(ies).

BASIS: Review comments are incorporated in accordance with a process and time frame negotiated with the agency(ies).

10.6.3 Air emissions

Overview: Three types of permitting documentation are required to address air emissions regulations:

1. Radioactive Air Emissions Program (RAEP)
2. National Emissions Standards for Hazardous Air Pollutants
3. New Source Review (NSR).

The process involved in preparing air emissions permitting documentation follows the General Permitting Procedure outlined in Figure 10-1.

BASIS: The requirements for air emissions are identified in Section 2.6 and summarized in Table 9-1. Permitting documentation preparation is based on requirements cited in these regulations and on guidelines provided by, and discussions held with, EPA, Ecology, DOH, and local agencies.

10.6.3.1 Radioactive Air Emissions Program (RAEP) application

Overview: The RAEP is used to obtain regulatory approval for new sources and modifications to existing sources of radioactive air emissions and establish procedures for the monitoring, control, and reporting of airborne radionuclide emissions from specific sources within the state of Washington.

BASIS: The requirements for the RAEP are discussed in Section 2.6 and summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on regulations cited in WAC 246-247, "Radiation Protection-Air Emissions," and on guidelines provided by, and discussions held with, DOH.

10.6.3.2 National Emissions Standards for Hazardous Air Pollutants (NESHAPS) application

Overview: A NESHAPS application is required to obtain regulatory approval from the EPA pursuant to 40 CFR 61, for discharge to the atmosphere of certain pollutants regulated by the Clean Air Act. The NESHAPS permit application provides a description of the:

1. Proposed nature of the source
2. Proposed size of the source
3. Proposed design of the source
4. Operating design capacity
5. Method of operation (including process flow diagram)
6. Emissions control system
7. Emissions release rates
8. Off-site doses
9. References.

BASIS: The requirements for the NESHAPs are identified in Section 2.6 and summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on regulations cited in 40 CFR 61 and on guidelines provided by, and discussions held with, EPA.

10.6.3.3 New Source Review (NSR)

Overview: An NSR encompasses the process required to obtain regulatory approval from Ecology pursuant to WAC 173-400-110, for discharges to the atmosphere of certain pollutants regulated by the Clean Air Act. The NSR process requires an examination of the applicability of WAC 173-400-141, "Prevention of Significant Deterioration (PSD)" and WAC 173-460, "Controls for New Sources of Toxic Air Pollutants" (TAPs). The contents of a PSD permit application and TAPs permit application are outlined below.

1. Project Location
2. Process Description
3. Design and Operating Parameters
4. Emissions - Type and Quantity
5. Anticipated Construction Schedule
6. Best Available Control Technology Assessment
7. Analysis of Present Air Quality at the Proposed Source Location
8. Analysis of the Proposed Source of Ambient Air Quality
9. Demonstration That Proposed Emissions Will Not Cause a Violation of State or National Ambient Air Quality Standards
10. Discussion of the Proposed Project's Effects on Air Quality Related Values
11. References.

A TAPs permit application provides a description of:

1. Project Location
2. Process Description
3. Design and Operating Parameters
4. Emissions - Type and Quantity
5. Anticipated Construction Schedule
6. Best Available Control Technology for Toxics Assessment
7. Analysis of Present Air Quality at the Proposed Source Location
8. Analysis of the Proposed Source on Ambient Air Quality
9. Demonstration That Proposed Emissions Will Not Cause a Violation of State or National Ambient Air Quality Standards
10. Discussion of the Proposed Project's Effects on Air Quality Related Values
11. References.

BASIS: The requirements for the NSR are identified in Section 2.6 and summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on regulations cited in WAC 173-400-110, WAC 173-400-141, and WAC 173-460, and on guidelines provided by, and discussions held with, Ecology.

10.6.3.4 Review comment incorporation documentation

Overview: Air emissions permitting documentation is reviewed by the appropriate regulatory agency(ies).

BASIS: Review comments are incorporated in accordance with a process and time frame negotiated with the agency(ies).

10.6.4 Solid waste handling

10.6.4.1 Solid waste handling permit (SWHP)

Overview: A SWHP application is used to obtain regulatory approval for various activities related to the handling of nonhazardous and nonradioactive solid waste, as defined in WAC 173-304-100. All SWHP applications except for inert waste, demolition waste, special purpose landfills, woodwaste landfills, and recycling facilities, contains the following information:

1. General description of the facility and the types of waste to be handled at the facility
2. Plan of operation
3. A form used to record weights or volumes (required by WAC 173-304-405(3)
4. Inspection schedule and inspection log required by WAC 173-304-405(5)
5. Documentation to show that any domestic or industrial waste water treatment facility, such as a leachate treatment system, is being reviewed by Ecology under WAC 173-240.

In addition, applications for permits for new or expanded landfill facilities contain the following:

1. Geohydrological assessment of the facility at that address
2. Preliminary engineering report/plans and specifications
3. Plan of operation that addresses landfill-specific requirements identified in WAC 173-304-600-(3)(b)(iii).

Additional requirements for the contents of applications for:

1. New or expanded transfer stations, drop box facilities, and baling and compaction systems are discussed in WAC 173-304-600-(3)(c)
2. New or expanded surface impoundments are discussed in WAC 173-304-600-(3)(d)
3. New or expanded piles requiring a permit are discussed in WAC 173-304-600-(3)(e)

4. New or expanded energy recovery and incinerator facilities are discussed in WAC 173-304-600-(3)(f)

5. New or expanded landspreading disposal facilities are discussed in WAC 173-304-600-(3)(g).

Permits are not required for the disposal of inert/demolition waste generated and disposed of on the Hanford Site which are in compliance with all other applicable solid waste handling requirements.

Filing shall not be complete until two copies of the application have been signed by the owner and operator and received by the jurisdictional health department (currently the Benton Franklin District Health Department [BFDHD]), and the applicant has filed an environmental checklist required under the SEPA. A SWHP application is complete when all requirements of WAC 173-304 have been met.

BASIS: The requirements for a SWHP are identified in Section 7.0 and summarized in Section 9.0, Table 9.1. Permitting documentation preparation is based on regulations cited in WAC 173-304-405 and -600 and on guidelines provided by, and discussions held with, Ecology and BFDHD.

10.6.4.2 Review comment incorporation documentation

Overview: Solid waste handling permitting documentation is reviewed by the appropriate regulatory agency(ies).

BASIS: Review comments are incorporated in accordance with a process and time frame negotiated with the agency(ies).

10.7 Configuration Control

Overview: Once a permit is issued, the facility is required to operate under the conditions described in the permit. These conditions may or may not be consistent with operating documents (or other documents) that served as the basis for the permit application. Changes in these documents are required to ensure that the operational practices these documents direct are consistent with permit conditions. Changes in facility operations may require changes in the permit (permit modification).

A configuration control system for operating and engineering documents is established and described in facility administrative manuals via the document revision process and WHC-CM-6-1, *Standard Engineering Practices* respectively.

BASIS: A permit application serves as the basis for a permit issued by the appropriate regulatory authority. Once a permit is issued, the facility is required to adhere to the permit and to ensure that the facility is operated in accordance with permit conditions. All of the permits related to RCRA/dangerous waste, water discharges, air emissions, and solid waste handling have such requirements. Hence, configuration control is needed to ensure that required documentation is in place and that the effect of changes to that documentation can be evaluated in

a permitting context. Regulations require that a permit modification be pursued if changes in the operation of a facility are to be implemented.

10.8 Records

Overview: Permit applications and permit modification requests requiring certification are Quality Assurance records and are considered completed when all approval signatures are obtained and the applications are submitted to RL. The record copy of the permit application or permit modification request is transmitted to Documentation and Records Management (Records Holding Area) within 30 days of certification, as a lifetime quality assurance record.

Documents designated as other record material include decision-making documents generated by Environmental Services and used as supporting documentation (e.g., correspondence, formal reviews, RCRs) are kept by the assigned Environmental Services file custodian for at least 90 days after the permit is issued. Nonrecord material includes copies of RL correspondence transmitted to or received from regulatory agencies (record copy maintained by Correspondence Control). Also included in this category are schedules, cost accounts, background reviews, draft documents, and meeting minutes.

BASIS: Records are maintained as established in WHC-CM-3-5, *Document Control and Records Management Manual.*

10.9 References

NOTE: For additional references, see Appendix B of this manual.

RL-TPA-90-001, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement).

WHC-CM-2-5, *Management Control System.*

WHC-CM-3-4, *Information Release Administration.*

WHC-CM-3-5, *Document Control and Records Management Manual.*

WHC-CM-6-1, *Standard Engineering Practices.*

Figure 10-1. General Permitting Procedure Flow Chart.

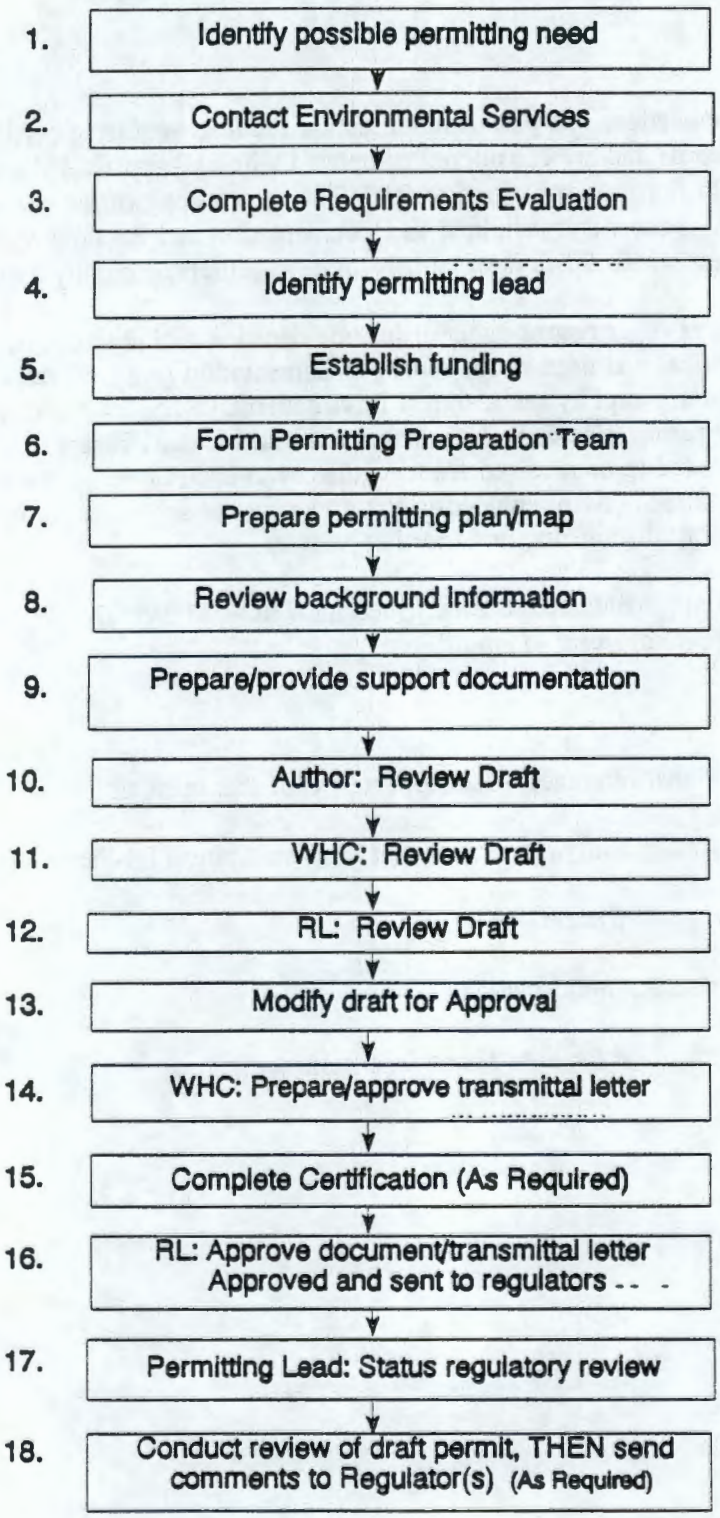

Figure 10.2. RCRA Permitting Flow Chart.

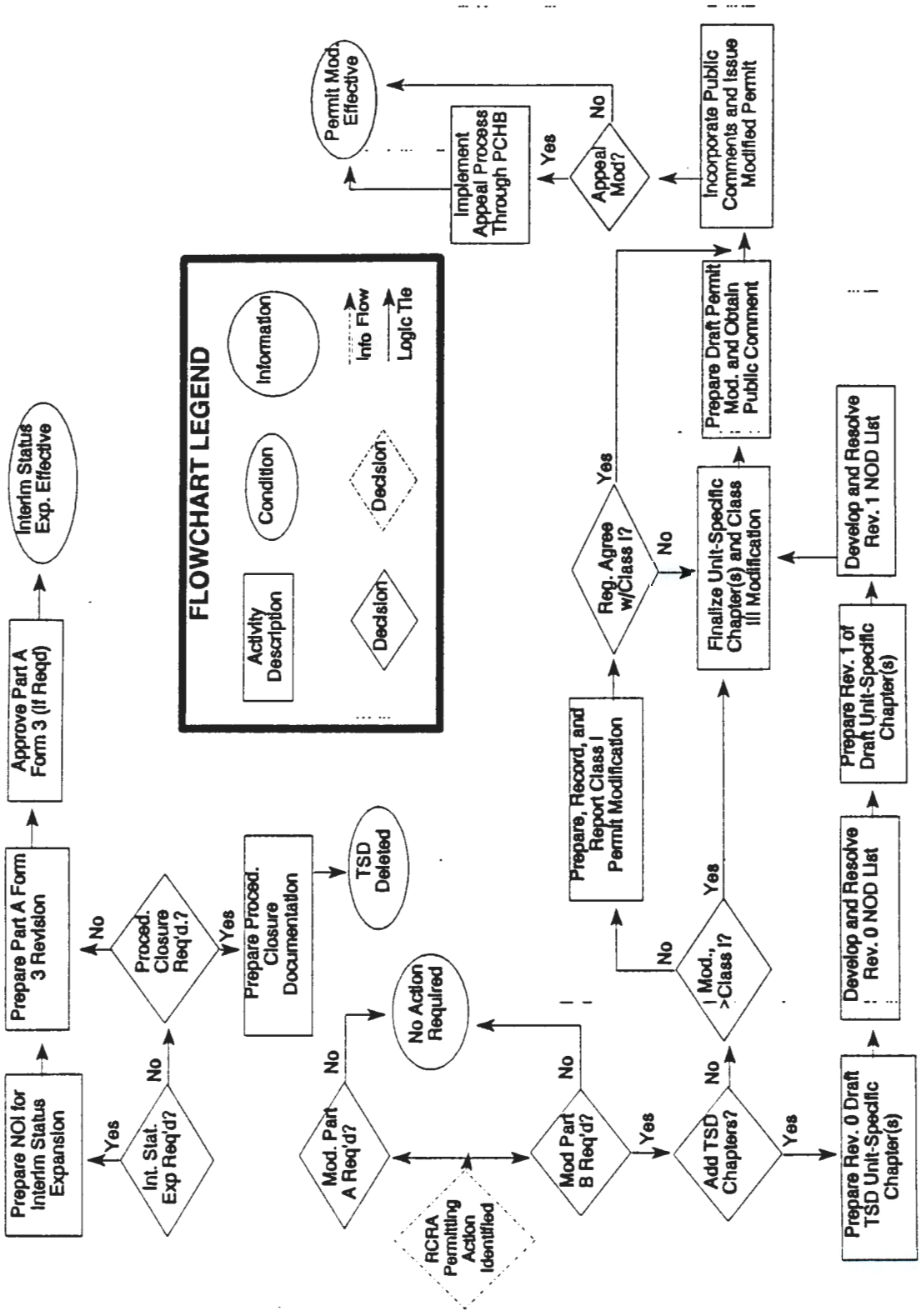

Figure 10-3. General Permitting Constraints/Influences for Design, Construction, and Operation.

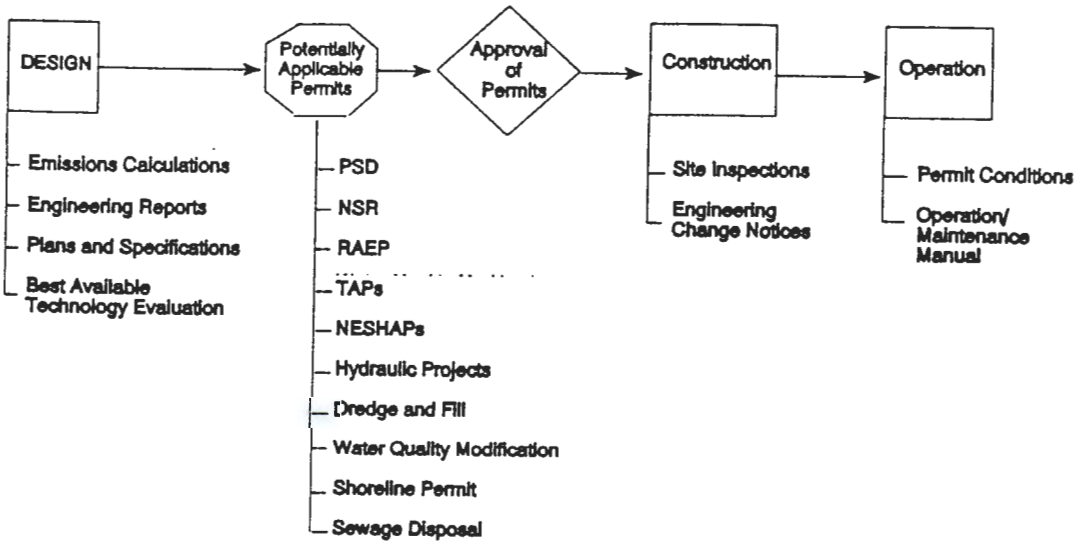

Table 10-1. RCRA Part B and Closure/Postclosure Plan Review Cycle.

DOE submit Part B Permit Application (initial revision 0)	———
Ecology review revision 0 and issue NOD list	120 days
DOE submit Response Table to NOD list	120 days
Ecology issue response to Response Table	120 days
Workshop meetings (8 months for Part B Application)	240 days
DOE issue revision 1	120 days
Ecology review revision 1 and issue NOD list	60 days
Unit Managers issue resolution (final)	60 days
DOE conduct page change revision	90 days
Ecology prepare draft permit	90 days
Public notification/review	90 days
Issue permit modification	———

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during the verbal direction was quarterly. The Solid Waste Disposal Division Training plan has also identified a quarterly updating frequency for personnel names. Questions regarding interpretations or deviations pertaining to the requirements found in WAC 173-303-330 should be directed to Environmental Services.

All training plans developed under this section must be cleared for public release and maintained in the unit/building's Regulatory File as required by Section 7.16 of this manual. A training plan must contain the following:

a. The job title, job description, and name of the employee filling each job. The job description must include requisite skills, education, other qualifications, and duties for each position.

Discussion: The specific personnel names that must be maintained in a training plan are determined by the five worker categories (defined later in Section 11.5) by which all personnel are categorized. Hanford Facility personnel who perform duties and responsibilities associated with the Advanced General Worker, General Manager, and General Shipper worker categories shall be identified by employee name in the applicable unit/building specific training plan. Names of Hanford Facility personnel who perform duties and responsibilities within the All Employee or General Worker categories, as well as visitors and subcontractors need not be identified in a training plan. However, the training plan must identify the training requirements pertaining to all Hanford Facility Personnel, visitors and subcontractors. The duties and responsibilities of those unit/building personnel within the Advanced General Worker, General Manager, and General Shipper worker categories, assigned to work in or around RCRA waste management units described in the training plan must be listed under the specific job title for the employee to ensure that worker categorization has been properly accomplished.

When addressing the prerequisite skills, education, and other qualifications, general statements can be made in the training plan. Specific information concerning an individual's position need not be included in the training plan as long as it can be provided upon request.

b. A written description of the type and amount of both introductory and continuing training required for each position.

Discussion: Courses developed to comply with the RCRA training program must be identified and discussed in the training plan. The initial (introductory) and the refresher (continuing) course(s) must be described in sufficient detail to determine the target audience and types of worker categories of personnel that need to attend the course. The frequency for retraining must be specified for each initial and refresher course as one-time only, annual, or every other year in accordance with Attachment A to this section. Non-RCRA courses may be included in the training plan as long as the training plan clearly differentiates between RCRA and non-RCRA courses.

c. Records documenting that personnel have received and completed the training required by this section. Ecology may require, on a case-by-case basis, that training records include employee initials or signature to verify that training was received.

Discussion: Training records consist of hard copy and electronic data storage training records, both of which are maintained by Training Records. Hard copy and electronic data storage training records are not physically maintained in a training plan due to the size of the Hanford Facility. The hard copy training record will provide Ecology with a training record which includes the employee initials or signature verifying training was received. Field training files are inappropriate to maintain for compliance with the RCRA training program due to a number of problems field training files have created during Ecology's compliance inspections. The training plan must discuss how training records will be produced when requested on an inspection, and how the training record will be compared to information in the training plan to determine that personnel are trained. Refer to Section 11.4.1.4 for additional information on training records.

BASIS: WAC 173-303-330(2), Hanford Facility RCRA Permit, General Condition II.C, and TSD Unit Part B Permit Application language concerning training plan contents and record retention.

11.4.1.3 Hierarchy of training plans

The training plan format that is used is based on how the various RCRA waste management units manage dangerous or mixed wastes.

a. TSD units managing dangerous or mixed waste: Training plans are developed and maintained for TSD units to meet either interim status or final status requirements. When interim status is the only concern and the the plan will not be formally submitted to Ecology in an application, training plan preparers will be allowed more flexibility when formatting the document. In this case, the training plan will not be subject to the RCRA permit modification process and only be provided to Ecology upon request.

When a training plan will be submitted to meet information requirements in Part B Permit Applications, the training plan will be placed in an appendix to chapter 8 of the Part B Permit Application. Including the training plan in the Part Permit Application will meet all of the training requirements described in both the RCRA Part B Permit Application Checklist and WAC 173-303-806(4) (xii). The checklist is located on the Hanford Local Area Network under Hanford Information.

When a training plan will be located in the appendix of a permit application, the training plan preparer needs to consider two important factors when writing the program plan. The first factor concerns configuration control, in that changes to the document are subject to the permit modification process. In other words, the training plan and/or sections of the training plan that Ecology incorporates into the TSD unit's Part B Permit cannot be changed by WHC alone. In order to change information that has been incorporated into the permit, the proposed changes must be reviewed by the program Environmental Compliance Officer, the changes classified in accordance with WAC 173-303-830, Appendix I. And finally, the permit amended through Ecology before WHC can make the changes. The second factor concerns segregating information in the document so that Ecology can select the sections from the training plan relevant to the permit. Environmental Services recommends that training plan preparers consider segregating information into: (1) RCRA training, (2) Non-RCRA training, (3) Training Course

Descriptions, and (4) Training Requirements listed by employee worker catagory and Name (see example table).

b. Other TSD units: Those TSD units that are not managing dangerous or mixed waste will only need to consider training plan requirements that pertain to the closure activities described in the TSD units closure plan. The training section 7 and related appendix will be where the training information is placed in the closure plan. For training Information that becomes part of the RCRA permit for the Hanford site (part V TSD units) see the discussion in section (a) above for permit modification considerations.

c. 90-day accumulation areas or 90-day tank systems - The format for a generator training plan is more flexible since the training plan will not be submitted to Ecology as part of any permitting process. Contact your RCRA Field Services representative to assist in the identification of the appropriate format for this type of plan.

In some cases, a TSD unit and a 90-day accumulation area or 90-day tank system may be managed by the same organization. In these cases, unit/building management can decide what types of training plans are developed and maintained. If the same personnel work within the TSD units and generating units, a single training plan in the Part B Permit Application format with generator activities segregated within the plan from TSD unit activities may be appropriate. Unit/building management may also decide to maintain separate training plans for these activities.

e. Satellite accumulation areas - Satellite accumulation area operations and management does not require the development of a written training plan.

BASIS: WAC 173-303-200, -400, and -600 relating to WAC 173-303-330.

11.4.1.4 Training records disposition

RCRA training records must be maintained as outlined below unless otherwise required by the Hanford Facility RCRA Permit. General condition II.I pertaining to the Facility Operating Record in the Hanford Facility RCRA Permit requires that records be kept until 10 years after postclosure or corrective action is complete and certified for the Hanford Facility. Since both the hard copy and electronic data storage record training records are maintained by the Training Records organization for 75 years, unit/building management need not be concerned regarding the maintenance of training records in their Regulatory File. Training records may accompany personnel transferred to another contractor that does not use the Training Records Information System. Training records may be observed or copies given to regulatory agency personnel as a routine use under the Privacy Act (59 FR 17091). Regulatory agency personnel become subject to the Privacy Act when the training record is provided to them.

a. General Training Classroom Instruction - Following course completion, Site Training will send the hard copy training records to Training Records to create the electronic data storage record.

b. Unit/Building-Specific Training - Following course completion, unit/building management will send the hard copy training records to Training Records to create the electronic data storage record. Only hard copy training records that are required to be managed as a RCRA training record will be subject to this requirement. Examples of the types of unit/building-specific forums which may provide waste management direction to personnel that are not subject to WAC 173-303-330(3) for maintenance as a RCRA training record include: (1) Project kick-off meetings, (2) Pre-job safety meetings, (3) unit manager meetings, and (4) procedure reviews.

BASIS: WAC 173-303-330(3)

11.4.2 Non-RCRA training

This section describes the non-RCRA training in the WHC environmental training program. This section may reference the reader to other WHC manuals when appropriate since Environmental Services is not the interpretive authority for all of the non-RCRA training identified.

11.4.2.1 Access

Gaining access to geographical areas on the Hanford Facility can involve issues pertaining to (1) Hanford Facility access, (2) Unit/building access, and (3) Radiological Area access. Access to the Hanford Facility is controlled through the issuance of badges. The type of badge that is issued will depend on the access frequency of the visitor or subcontractor. In addition, foreign national considerations will also impact the ability of personnel to gain access to the Hanford Facility. Personnel who escort foreign nationals must successfully complete Foreign National Visitor Awareness training (course number 000094) and comply with the security plan for the foreign national.

Unit/building access is evaluated on whether the visitor or subcontractor must be escorted (this does not include foreign national considerations). If the visitor or subcontractor is escorted by qualified Hanford Facility personnel assigned to the unit/building, unit/building orientation is not required unless the visitor or subcontractor will be working and not touring under a Radiation Work Permit (RWP). For example, when a regulatory inspector wants to sample a container during part of an inspection, the inspector must complete the appropriate unit/building orientation training if the sampling will be conducted under a RWP. This orientation fulfills radiological safety training considerations specific to the hazards present at the unit/building. Hanford Facility personnel being escorted by qualified unit/building personnel also fall under the same orientation considerations as do visitors and subcontractors.

In addition to the requirements for unit/building access, there are also specific requirements pertaining to Radiological Area access. For entry into Radiological Areas, visitors (e.g., regulatory agency inspectors) are allowed access when accompanied by a qualified escort (Hanford Facility personnel assigned to the unit/building). There are limitations, however, on the amount of radiation exposure that visitors may receive, which may impact access over time. Health physics organizations can help ascertain these limits.

In addition to escorting requirements, dosimetry and RWP specific requirements also exist. Dosimetry requirements are met through issuing temporary or permanent dosimeters, or by completing radiological visitor forms or regulatory agency personnel qualification cards to allow access. RWP specific requirements can include whole body counts, unit/building orientation, attending radiation worker training courses, bioassay testing, criticality training, and mask fit user test (pulmonary capacity). Refer to the following table to identify the organization that can answer related access questions.

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