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FACT SHEET

HANFORD FACILITY

DANGEROUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY

This Fact Sheet is intended to provide a summary explanation of the conditions found in the draft Hanford Facility Dangerous Waste treatment, Storage and Disposal Facility Permit (Permit). Given the complexity of the Hanford Facility and the length of the permit, it is not possible in this Fact Sheet to address each and every requirement imposed in the permit. Nor is it possible to recite all the reasons for each of the permit conditions. The reader should not assume that the explanations contained in the Fact Sheet are comprehensive.

Introduction

The Hanford Facility is an approximately 560 square mile facility in the south central part of Washington State which treats, stores and disposes of dangerous waste (both mixed with radioactive constituents and nonradioactive constituents). The Facility treats, stores and disposes of all wastes allowed under the provisions of the Dangerous Waste Regulations.

This facility includes all lands owned by the United States Department of Energy (USDOE) at the site. This includes all contiguous lands which are owned by the USDOE but operated by different organizational subdivisions within the USDOE (i.e. Bonneville Power Administration). The Facility includes lands on either side of the Columbia River which are owned by the USDOE. Also included are any lands owned by the USDOE but which are leased to other interests (i.e. the State of Washington, the Washington Public Power Supply System or any other such leased land).

This Permit is issued under the authorities granted the Environmental Protection Agency and the Washington State Department of Ecology through the Resource Conservation Recovery Act (42 USC 3251 et seq.) and the Washington State Hazardous Waste Management Act (Chapter 70.105 RCW) and all the respective implementing regulations. This Permit is issued to the United States Department of Energy, the Westinghouse Hanford Company (WHC) and the Battelle-Pacific Northwest Laboratory (PNL), hereafter called the Permittees.

It is intended that the USDOE be responsible for compliance with all conditions of this Permit. Further, it is intended that WHC has responsibility for compliance with all conditions of this Permit except for those Units identified in Part III of the Permit which are operated by PNL. PNL has responsibility to comply with all conditions of the Permit except for those units identified in Part III which are operated by WHC. Failure to comply with any condition may

result in formal enforcement against any or all parties responsible for compliance with the condition(s) cited in the enforcement actions.

This permit has been designed specifically for the issues associated with the Hanford Facility. Specifically, the Washington State Department of Ecology (Department), the U.S. Environmental Protection Agency (Agency) and the U.S. Department of Energy (Energy) have sign the Hanford Federal Facility Agreement and Consent Order (FFACO) which provides an extensive schedule to bring the Hanford Facility into compliance with the Dangerous Waste Regulations and also to investigate and remediate past practice areas. The permit has been designed to coordinate with the FFACO while being more detailed in the regulatory requirements for governing the treating, storing and disposing of dangerous waste.

The permit has also been written in a manner that will provide a detailed regulatory framework for inclusion of all future TSD units which will either be permitted or closed pursuant to the Dangerous Waste Regulations. In order to accomplish this, Facility Wide plans have been written which provide the framework for all the units which will be incorporated into the permit. These plans, commonly called "umbrella plans," will ensure that units will be regulated consistently through out the Facility. Further, the "umbrella plans" will cover all the permitted areas of the Hanford Facility which are not addressed in unit specific plans. This structure will help ensure that all of the Hanford Facility is regulated in accordance with the applicable regulations and is regulated consistently through out the Facility.

It is intended that this permit allow for full public participation in the decisionmaking process through the permit issuance and modification requirements of the Dangerous Waste Regulations, the public participation requirements of the FFACO, and the public participation requirements of the State Environmental Policy Act (SEPA).

Enforcement of all the conditions of this permit, including Part IV, will be primarily through the procedures identified in the FFACO. However, both the Department and the Agency reserve all rights to take actions outside the scope of the FFACO should the situation warrant such action.

SEPA will be addressed for every action taken pursuant to this permit and will be done on a unit by unit basis. In other words, each permit action will have a separate SEPA determination made upon it as opposed to an all inclusive SEPA analysis for the entire process. This will ensure the maximum public involvement in the decision making process for this permit.

Part I - Standard Conditions

Condition

Statement of Fact

I.A.1.a.

This permit authorizes specific activities to be conducted at the Hanford Facility under the authority of the State Hazardous Waste Management Act (Chapter 70.105 RCW) and the Federal Resource Conservation and Recovery Act (42 USC 3241 et seq.). Only the dangerous waste management activities which are specifically identified in this Permit may be conducted at the Hanford Facility, unless otherwise allowed by law.

As this permit is being issued for less than the entire facility however, certain treatment, storage and disposal activities not specifically authorized by this permit will continue under interim status. Any enforcement against the permittees for the units covered by interim status is outside the scope of the Permit.

I.A.1.b.

This permit has specific conditions which relate to the investigation and remediation of solid waste management units at the Facility. Certain of these facilities, State leased lands and Bonneville Power Administration substations, are not actively controlled by the Richland Field Office of the Department of Energy. While it is required that these units be investigated for past releases (under either the State or Federal program) it is not the intent of this permit to set operating conditions for those units. Therefore, the only portions of this permit that apply to these units are Part IV of the permit and any requirements of Parts I, II, and/or III which are specifically referenced into Part IV.

I.A.2.

The Department of Energy Westinghouse Hanford Company and Battelle - Pacific Northwest Laboratory are responsible for conducting certain activities at the Hanford Facility. As WHC and PNL are only responsible for the day to day operations at certain units/areas, they will only be held to the terms of the permit as they apply to those units/areas which they operate. These units/areas are identified in attachment xx of the Permit. The Department of Energy is responsible for ensuring compliance with the terms of this permit for all units/areas of the Hanford Facility regulated by this permit.

The Department of Energy, WHC and PNL shall also be responsible for ensuring that all work done at units/areas for which they have responsibility is done in accordance with the

conditions of this permit. This includes work done by persons other than the Department of Energy, WHC and PNL.

I.A.3.

The Hanford Facility currently has approximately 62 identified TSD units. Since schedules for the submittal of the Permit Applications or Closure Plans for these units have already been established in the FFACO, it is not possible to have a permit issued in the near future which covers all the units at the Hanford Facility. It is necessary to coordinate the permitting activities and the permitting compliance schedules of the FFACO with the permit in order to make it complete. It is intended that the permit and the FFACO will be coordinated to the extent possible to reduce duplicative processes.

It is intended that the permit be broader in scope and more detailed than the FFACO. This is necessary in order to meet the permitting requirements in the Dangerous Waste Regulations.

It is recognized that because all of the waste management units cannot be permitted at one time, those units which currently exist under interim status will continue to operate under interim status until a final permit decision is made regarding units which will continue to operate, or for units undergoing closure, until an approved closure plan is approved.

I.A.4.

Certain milestones in the FFACO are directly related to the permitting activities covered by this permit. Those schedules are incorporated into the permit as compliance schedules. These schedules do not include target dates as identified in the FFACO since target dates are not enforceable schedules in the FFACO. Those milestones incorporated into the permit are enforceable conditions of the permit. All of the milestones incorporated into the permit relate directly to the dangerous waste management activities covered by this permit.

Since the permit is more specific and detailed in its requirements regarding dangerous waste management, any conflict in the language between the permit and the FFACO will be resolved in favor of the permit. The only exception to this is for the Corrective Action portion of the permit, which incorporates a detailed process for past practice investigations. In these cases, any conflict between the specific language of the permit and the FFACO shall be resolved in favor of the FFACO. This is done to help the integration of the FFACO into the permit. It must be pointed out, however, that any document which is incorporated into this permit is subject to review and approval by the regulatory agencies, regardless of whether the document is

designated as primary or secondary in the FFACO.

I.B. This is a standard permit condition and is self explanatory.

I.C.1. This is a standard permit condition and is self explanatory.

I.C.2. This is a standard permit condition and is self explanatory.

I.C.3.a. This is a standard permit condition and is self explanatory.

I.C.3.b. Since this permit is being coordinated with the FFACO, and the FFACO has public participation requirements for review and comments on RFI/CMS and Records of Decision, it is not necessary to duplicate those requirements in the permit. Therefore, in order to reduce duplicative requirements, the public comment periods of the FFACO will satisfy the requirements of the permit.

If the provisions of the FFACO are not followed or if public participation for a document is not required under the FFACO, the provisions of I.C.3.a. shall apply.

I.C.3.c. Not all corrective actions will take place at units which are covered by the FFACO. Therefore, for those actions which will take place outside the scope of the FFACO, the regulatory requirements for permit modifications as identified in condition I.C.3.a will apply to ensure public participation.

I.D.1. This is a standard permit condition and is self explanatory.

I.D.2. This is a standard permit condition and is self explanatory.

I.E.1. This is a standard permit condition and is self explanatory.

I.E.2. This is a standard permit condition and is self explanatory.

I.E.3. This is a standard permit condition and is self explanatory.

I.E.4. This is a standard permit condition and is self explanatory.

I.E.5. This is a standard permit condition and is self explanatory.

I.E.6. This is a standard permit condition and is self explanatory.

I.E.7. This is a standard permit condition and is self explanatory.

I.E.8. This is a standard permit condition and is self explanatory.

I.E.9. This is a standard permit condition and is self explanatory.

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- I.E.9.a. This is a standard permit condition which has been modified to ensure access for the regulatory agencies (and their representatives) to all areas of the Facility is provided at any time. This provision has been changed to be consistent with other state regulations.
- I.E.9.b. This is a standard permit condition and is self explanatory.
- I.E.9.c. This is a standard permit condition and is self explanatory.
- I.E.9.d. This is a standard permit condition and is self explanatory.
- I.E.10.a. This is a standard permit condition and is self explanatory.
- I.E.10.b. This is a standard permit condition which has been modified to allow the permittees some flexibility in consolidating records at the Facility. Where practicable, records required to be kept at a unit will be required to be kept at that unit. However, there are some locations (such as landfills or surface impoundments) where it may not be feasible to keep the required records at the unit. To address this, the permit will allow for an alternate location for these records upon approval on a unit by unit basis. The location for these records will be specified in the unit specific permit application or closure plan.
- I.E.10.c. This is a standard permit condition which has been modified to allow the permittees some flexibility in managing the large volumes of documents and reports which are required to be kept under this permit for extended periods of time. If approved by the regulatory agencies, the permittees may retain these records at a location other than the facility (such as the federal archives located in the Seattle area). Regardless of location, all records will be accessible to the regulatory agencies and the public.
- I.E.10.d. This is a standard permit condition and is self explanatory.
- I.E.10.e. This is a standard permit condition and is self explanatory.
- I.E.11. This is a standard permit condition and is self explanatory.
- I.E.12.a. This is a standard permit condition and is self explanatory.
- I.E.12.b. This is a standard permit condition and is self explanatory.
- I.E.13. This is a standard permit condition and is self explanatory.
- I.E.14. This is a standard permit condition and is self explanatory.

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I.E.15. This is a standard permit condition which has been modified to include specific requirements for reporting releases at the Hanford Facility. This condition specifies when the Facility must provide immediate verbal reports to the Department or Agency.

I.E.15.a. This condition defines the amount of a release of a dangerous waste or hazardous substance which requires immediate reporting. Further, radionuclides which are released are specifically required to be reported. These are specifically called out in order to avoid confusion as to what substances require reporting. Radionuclides are identified in the EPA Spill Table (40 CFR 302.4) as a hazardous substance. Hazardous substances identified on the EPA Spill Table require reporting under WAC 173-303-145 when released.

For purposes of determining whether a release must be verbally reported, the quantities specified in this condition (and in condition I.E.15.b.) mean the quantity of the hazardous substance or dangerous waste, including any material with which the hazardous substance or dangerous is mixed. The following example will illustrate this requirement:

A mixture of a hazardous substance and water is released in the quantity of 2 pounds. The mixture is made up of 1/2 pound of hazardous substance and 1 1/2 pounds of water. Because the mixture released is greater than 1 pound, the release must be reported.

I.E.15.b. The department recognizes that releases into secondary containment pose less of a threat to human health and the environment than do releases into the environment. Therefore, this condition specifies an elevated amount of material which activates the immediate reporting requirements of this permit.

I.E.15.c. This condition sets the minimum information required when immediately reporting activities required by conditions I.E.15., I.E.15.a. and I.E.15.b.

I.E.15.d. For purposes of compliance with the immediate reporting requirements of this provision, 2 hours will be the maximum allowable time after an incident has been identified that it can be reported. Two hours was selected as an acceptable maximum reporting time frames based upon previous enforcement actions issued by the Department to non Hanford entities.

I.E.15.e. This condition requires recording in the operating record all releases which do not require immediate reporting pursuant the WAC 173-303-145 and this permit.

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- I.E.15.f. This condition requires controlling and mitigating any release as identified in this permit or pursuant to WAC 173-303-145.
- I.E.16. This is a standard permit condition and is self explanatory.
- I.E.17.a. This is a standard permit condition and is self explanatory.
- I.E.17.b. Because of the size of the Hanford Facility and the distances involved in shipping wastes throughout the Facility, it is the intent of this permit that waste shipping activities on the Hanford Facility be treated as they are for off site facilities. Therefore, the same requirements which apply to the receipt of off site wastes at the Hanford Facility are addressed in this condition. This will ensure that all wastes received at on site TSDs will be handled the same.
- I.E.18. The Permittees may not accept unmanifested wastes (either from an off site or an on site generator), at a TSD unit at the Hanford Facility. If presented with a shipment of unmanifested wastes, the Permittees are required to notify the generator and the regulatory agencies so that the wastes can be properly handled. Resolution of the issue may include location of lost manifests/shipping papers, generation of new manifests/shipping papers, or by some other means which will ensure the waste which is received is properly identified and tracked from the point of generation to final treatment or disposal.
- I.E.19. This is a standard permit condition and is self explanatory.
- I.E.20. This is a standard permit condition and is self explanatory.
- I.E.21. This is a standard permit condition and is self explanatory.
- I.E.22. This is a standard permit condition and is self explanatory.
- I.F. This is a standard permit condition and is self explanatory.
- I.G. This is a standard permit condition and is self explanatory.
- I.H. This is a standard permit condition which has been modified to address the location of records as discussed in condition I.E.10. Also, this condition requires that records be maintained for ten (10) years after closure or corrective actions for the facility. This means the entire Hanford Facility and not closure or corrective action at units.

Part II - General Facility Conditions

- II.A.1. The Facility Wide Contingency Plan sets the overall Hanford

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Facility response plans as they pertain to Dangerous Waste Management activities. This plan is intended to supplement the unit specific contingency plans by providing coordinative and response protocols for incidents at a unit which are more expansive than can be handled properly by the unit specific contingency plan.

- II.A.2. The Hanford Facility Plan as finally submitted was not completely acceptable to be incorporated as written. Therefore, some modifications to the plan have been made through permit conditions.
- II.A.2.a. It is necessary to clarify the chain of command for responding to incidents subject to this permit. Therefore, this condition spells out who is the emergency coordinator for different types of responses.
- II.A.2.b. This condition specifies where to find procedures for responding to damaged waste shipments in the Permit. Specifically, these are being addressed on a unit by unit basis and are found in Part III of this permit.
- II.A.2.c. This condition clarifies the plans.
- II.A.2.d. This condition specifies the reporting and notification requirements for different emergency response levels.
- II.A.2.e. This condition clarifies the text.
- II.A.2.f. This condition clarifies the wording in the text.
- II.A.2.g. This condition changes the wording in the text.
- II.A.2.h. This condition places additional requirements upon the emergency coordinator to ensure that the individuals assess the situation in accordance with the requirements of the Dangerous Waste Regulations.
- II.A.2.i. This condition places additional requirements upon the emergency coordinator to assess the incident.
- II.A.2.j. This condition is intended to specify which emergency plan controls in case the actions taken pursuant to one are different than actions taken pursuant to another one of the attached plans.
- II.A.2.k. As the Facility Wide Contingency Plan is comprised of three separate documents and those documents cover a wider range of issues than requirements in the Dangerous Waste Regulations, it is only necessary to incorporate portions of the plans.

Those chapters of the plans which are identified in this condition are fully incorporated into the plan and are subject to all the modification procedures of this permit. Compliance with the contingency plan for Dangerous Waste activities will be based upon these chapters. The chapters not specifically identified in this permit condition are not part of the permit and therefore are not subject to the modification procedures of this permit. Further, should the Permittees fail to follow the procedures identified in chapters not specifically referenced in this condition, it is not a violation of this permit.

- II.A.2.1. This condition specifies who and what shall be reported should an incident occur.
- II.A.2.m. This condition requires compliance with the reporting procedures of WAC 173-303-360(2)(k).
- II.A.2.n. This requirement clarifies how the Department and other agencies must be notified after an incident and prior to the resumption of operations. This will allow the regulatory agencies the ability to properly oversee any necessary activities associated with the restart of a unit.
- II.B.1. This condition incorporates the Facility Wide Preparedness and Prevention Plan for the Hanford Facility. This plan is intended to set the basic requirements for preparedness and prevention that all areas of the Hanford Facility will meet with respect to the Dangerous Waste Regulations. This plan will be supplemented by the unit specific Preparedness and Prevention plans which will give the specific requirements for the individual units.
- II.B.2. As submitted, the Facility Wide Preparedness and Prevention Plan did not fully comply with the regulations. Therefore changes to the plan were made through permit conditions.
- II.B.2.a. This condition clarifies the scope of the Preparedness and Prevention Plan.
- II.B.2.b. This condition specifies the appropriate regulatory citation in the text.
- II.C.1. This condition incorporates the Facility Wide Training Plan for the Hanford Facility. This plan is intended to set the basic requirements that all areas of the Hanford Facility will meet for Personnel Training with respect to the requirements of the Dangerous Waste Regulations. This plan will be supplemented by the unit specific Training plans which will give the specific requirements for the individual units.

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- II.C.2. As submitted, the Facility Wide Personnel Training plan did not fully comply with the regulations. Therefore, changes to the plan were made through permit conditions.
- II.C.2.a. This condition changes the wording in the text.
- II.C.2.b. This condition sets the requirements for access to training records by the regulatory agencies.
- II.C.2.c. This condition clarifies that the requirements set forth in the Facility Wide Training plan are not applicable to representatives of the regulatory agencies when conducting official business.
- II.D.1. The Permittees are in the process of writing a Facility Wide Waste Analysis plan which upon approval will be implemented at the Hanford Facility. It is intended that this plan set the overall requirements for Waste Analysis at the Hanford Facility. Similar to the above described Facility Wide plans, the Facility Wide Waste Analysis Plan will be supplemented by the unit specific plans. This will ensure that all requirements of the Dangerous Waste Regulations will be met. This plan is required to be submitted no later than May 31, 1992 in draft form to the regulatory agencies.
- I.D.2. The plan will be reviewed and commented on, with the comments being incorporated in a second version.
- II.D.3. After review of the Facility Waste Wide Analysis Plan, the plan will be incorporated into the Permit through a permit modification as is or with changes through permit conditions.
- II.D.4. As a waste analysis plan is required for any final status unit, no waste may be stored, treated or disposed of before the Facility Wide Waste Analysis Plan is in place at any unit which does not have a waste analysis plan.
- II.E.1. This condition incorporates the Facility Wide Quality Assurance/Quality Control Plan into this permit. This plan is intended to set the basic requirements that all areas of the Hanford Facility will meet for Quality Assurance/Quality Control (QA/QC) with respect to the requirements of the Dangerous Waste Regulations. This plan will be supplemented by the unit specific QA/QC plans which will give the specific requirements for the individual units.
- II.E.2. As submitted, the Facility Wide Quality Assurance/Quality Control plan did not fully comply with the regulations. Therefore, changes to the plan were made through permit

conditions.

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- II.E.2.a. This condition changes the wording in the text.
 - II.E.2.b. This condition changes the wording in the text.
 - II.E.2.c. This condition changes the wording in the text.
 - II.E.2.d. This condition changes the wording in the text.
 - II.E.2.e. This condition changes the wording in the text.
 - II.E.2.f. This condition changes the wording in the text.
 - II.E.2.g. This condition adds a requirement that Laboratory Standard Operating procedures be implemented to ensure data is of sufficient quality to be used for purposes of this permit.
 - II.E.2.h. This condition changes the wording in the text.
 - II.E.2.i. This condition adds a requirement to be consistent with standard sampling and analysis protocols as used by the regulatory agencies.
 - II.E.2.j. This condition changes the wording in the text.
 - II.E.2.k. This condition changes the wording in the text.
 - II.E.2.l. This condition changes the wording in the text.
 - II.E.2.m. This condition sets the requirements that all QA programs implemented pursuant to this permit have a set of operating procedures which meet the minimum requirements of this condition.
 - II.E.2.n. This condition changes the wording in the text.
 - II.E.2.o. This condition changes the wording in the text.
 - II.E.2.p. This condition changes the wording in the text.
 - II.E.2.q. This condition changes the wording in the text to ensure that the standard protocols of SW-846 or CLP are implemented.
 - II.E.2.r. This condition changes the wording in the text.
 - II.E.2.s. This condition adds a requirement that a Quality Assurance Project Plan be established for characterization and analysis projects.

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- II.E.2.t. This condition changes the wording in the text.
- II.E.2.u. This condition changes the wording in the text.
- II.E.2.v. This condition changes the wording in the text.
- II.E.2.w. This condition changes the wording in the text.
- II.E.2.x. This condition changes the wording in the text.
- II.E.2.y. This condition changes the wording in the text.
- II.E.2.z. This condition changes the wording in the text.
- II.E.2.aa. This condition changes the wording in the text.
- II.E.2.bb. This condition changes the wording in the text.
- II.E.2.cc. This condition changes the wording in the text.
- II.E.2.dd. This condition requires compliance with standard EPA protocols for documenting and recording inorganic and organic information.
- II.E.2.ee. This condition changes the wording in the text to include the appropriate state regulatory citation.
- II.E.2.ff. This condition changes the wording in the text.
- II.E.2.gg. This condition changes the wording in the text.
- II.E.2.hh. This condition changes the wording in the text.
- II.E.2.ii. This condition requires compliance with EPA protocols for obtaining contaminant free samples. It is intended to ensure that any sample being collected for analysis is free of laboratory or field contamination.
- II.E.2.jj. This condition requires compliance with the appropriate state and federal protocols.
- II.E.2.kk. This condition changes the wording in the text.
- II.E.2.ll. This condition changes the wording in the text.
- II.E.2.mm. This condition changes the wording in the text.
- II.E.2.nn. This condition changes the wording in the text.
- II.E.2.oo. This condition requires that standard operating procedures be

established for measuring and test equipment.

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- II.E.2.pp. This condition requires compliance with SW-846 or CLP protocols for calibrating equipment. This will ensure a standard practice for equipment calibration, thereby helping to ensure that all analytical results are comparable.
- II.E.2.qq. This condition establishes the frequency with which analytical instruments must be calibrated.
- II.F.1. This condition establishes a Facility Wide Groundwater Monitoring Program.
- II.F.2. The management of purgewater, the water which is generated from the development of groundwater wells or from the purging of wells prior to sampling, and which is potentially contaminated, has already been resolved. For purposes of this permit, the conditions of the "Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington, July 1990" are enforceable requirements. This is applicable to any groundwater monitoring well which is required to be installed or monitored pursuant to any part of this permit.
- II.F.2.a. All wells required pursuant to the permit are required to be inspected for integrity at least once every five years. It is intended that this requirement help ensure that any problems with the integrity of the groundwater monitoring wells are identified before either they are unable to produce quality samples or they create a pathway for contaminants to the environment.
- II.F.2.b. To ensure proper regulatory oversight, any plan to remediate or abandon a well must be submitted and approved prior to implementation.
- II.F.2.c. Any well which is not capable of producing quality samples or which is defective in some other manner will be required to either be fixed or abandoned within 60 days of the discovery of the problem.
- II.F.2.d. Prior written notification of the remediation or abandonment of any groundwater monitoring well covered by this permit is required in order to give the regulatory agencies sufficient time to respond.
- II.F.2.e. All well abandonment activities must at least meet the requirements of WAC 173-160-415(2).
- II.F.2.f. This condition explains the circumstances that will trigger the obligation to remediate or abandon a well.

II.F.3.a. This condition sets the requirements which must be met for the construction and installation of all groundwater or vadose monitoring wells.

II.F.3.b. In order to take as much advantage as possible of existing monitoring wells, the Permittees and the regulatory agencies have previously agreed to the standards by which existing wells must be evaluated prior to inclusion in a monitoring program which complies with the Dangerous Waste Regulations (as well as for CERCLA work). This agreement is incorporated into this permit in order to maintain consistent requirements for selecting existing monitoring wells for use in meeting the requirements of this permit.

II.G. This condition specifies that any unit the construction of which was not contemplated in the FFACO (e.g., no specific milestones are associated with it for permitting or construction) must fully comply with the siting standards of the Dangerous Waste Regulations.

This requirement does not relieve the Permittees from complying with the siting standards for the expansion of units regulated by this Permit.

II.H. This condition specifies some of the requirements for record-keeping and reporting as they apply to the Hanford Facility.

II.H.1. Cost estimates for closure activities are being required by the Permittees through the omnibus report requirement provisions. Normally these requirements are met through the application of chapter 173-620 WAC. However, because the Department of Energy is exempt from this provision of the regulations the same information is being required through 173-303-390. WAC 173-303-620 does not exempt contractors from the closure cost requirements and therefore this information is required from them for their units. It is the intent, however, that this provision be all inclusive -- that is, applicable to the Department of Energy as well as the contractors. Therefore, use of the omnibus authority for requiring the same information as required from commercial operations, in the same detail, is applied. This approach was negotiated and agreed to by all parties.

The purpose of this condition is to require that an accurate assessment of future costs of closing permitted facilities be maintained. This will help the budget planning process to ensure sufficient funds are available at the appropriate times to support closure activities at the Facility.

II.H.1.a. This condition also specifies the requirements which must be

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met for the information submitted.

II.H.1.b. This condition specifies when each unit which requires a closure plan is subject to the reporting requirements of this Permit.

II.H.1.c. This condition specifies how the closure cost information must be presented in the submittal.

II.H.2. Cost estimates for postclosure activities are being required by the Permittees through the omnibus report requirement provisions. Normally these requirements are met through the application of chapter 173-620 WAC. However, because the Department of Energy is exempt from this provision of the regulations the same information is being required through 173-303-390. WAC 173-303-620 does not exempt contractors from the postclosure cost requirements and therefore this information is required from them for their units. It is the intent, however, that this provision be all inclusive -- that is, applicable to the Department of Energy as well as the contractors. Therefore, use of the omnibus authority for requiring the same information as required from commercial operations, in the same detail, is applied. This approach was negotiated and agreed to by all parties.

The purpose of this condition is to require that an accurate assessment of future costs of postclosure care for permitted facilities can be maintained. This will help the budget planning process to ensure sufficient funds are available at the appropriate times to support postclosure activities at the Facility.

This condition also specifies the requirements which must be met for the information submitted.

II.H.2.a. This condition also specifies the requirements which must be met for the information submitted.

II.H.2.b. This condition specifies when each unit which requires a postclosure plan is subject to the reporting requirements of this permit.

II.H.2.c. This condition specifies how the information must be presented in the submittals.

II.I.1. This is a standard permit condition which has been modified to address Hanford issues. Specifically, this condition requires both unit specific and facility wide operating records. Further, this condition specifies much of the information that

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is required and the time frame in which it must be incorporated. This permit condition is effective at the entire facility except at those units specifically excluded in part 1 of this permit.

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- II.I.2. This is a standard permit condition and is self explanatory.
 - II.I.3. This is a standard permit condition and is self explanatory.
 - II.J.1. In order to accomplish the final closure of the Hanford Facility, a requirement for the submittal of a Hanford Facility Closure Plan is provided. This closure plan will ensure the final administrative and technical requirements of a facility closure are met. This closure plan, although not to be implemented until all of the units at the facility have closed, will be the final administrative action taken at the Hanford Facility (unless postclosure care is to be required for any part of the Hanford Facility).
 - II.J.1.a. It is intended that this closure plan be the final integrating tool for all of the Hanford closure activities. This condition specifies the requirements to be met by this plan.
 - II.J.1.b. After review of the Facility Wide Closure Plan, the plan will be incorporated into the permit through a permit modification as is or with changes through permit conditions.
 - II.J.1.c. This condition specifies the mechanism for incorporation of this plan, once it is approved, into the permit.
 - II.J.1.d. Once this closure plan is written, approved and incorporated into this permit, all unit specific closure plans will be incorporated into the Facility closure plan. This incorporation will be done as a Class 1 modification as all of these plans will have already been through the public comment period as a Class 3 modification of the permit.
 - II.J.1.e. This condition specifies the closure standards for the facility as referenced in the Dangerous Waste Regulations.
 - II.J.1.f. This condition specifies the requirements for any modification of the closure plan as related to this permit.
 - II.J.1.g. The Permittees must notify the regulatory agencies at least 180 days prior to initiation of closure of the facility.
 - II.J.1.h. This provision specifies closure notification requirements, identical to the facility closure requirements, as related to unit specific closures.

II.K. Closure at TSD facilities usually includes two options, clean closure (to background contaminant levels) and closure as a landfill. Ecology has identified a third option for use at the Hanford Facility. This option is a modified closure and provides for a closure to standards which combine the Residential Health Based standards identified in the Model Toxic Control Act (MTCA), Land Disposal Restriction levels, and designation levels for state only dangerous wastes, whichever is the most stringent. This option allows for a modified postclosure. Should the permittees be able to clean up to the modified soil levels, reduced postclosure requirements may be imposed instead of a full landfill closure. These reduced postclosure requirements will be determined on a case by case basis.

This policy will allow for the integration of the RCRA closure process and the RCRA and CERCLA past practice programs. It is possible with the modified postclosure option to clean a RCRA unit to a point which is stabilized and then leave the final cleanup to the RCRA or CERCLA past practice remediation. However, the modified postclosure option will still require a postclosure permit.

II.L.1. This is a standard permit condition and is self explanatory.

II.L.2. This is a standard permit condition and is self explanatory.

II.L.3.a. This is a standard permit condition and is self explanatory.

II.L.3.b. The Hanford Facility utilizes an engineering change protocol to document planned changes in the design of a unit during its construction. This protocol uses an Engineering Change Notice (ECN). This condition requires this process to be utilized for all construction done pursuant to this permit.

For all ECNs submitted to the Department, the Department will determine if these changes require a Class 2 or Class 3 modification of this permit. Further, it is the intent of this condition that the Department approve or disapprove the ECN. However, it is also the intent of this condition that the Department not prevent any construction from taking place due to delays in the approval process. Therefore, if the Department does not respond to the ECN within seven days, it will be considered approved and the Permittees may proceed with that construction activity.

II.L.3.c. The Hanford Facility documents deviations from construction plans, designs, and specifications in a Nonconformance Report (NCR). This condition requires that NCRs be submitted to the regulatory agencies within 48 hours of issuance, and that the

Permittees receive permission from the agencies before proceeding with further construction.

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- II.L.3.d. This condition requires the Permittees to submit as-built drawings for all construction work undertaken pursuant to this Permit.
 - II.L.4. This is a standard permit condition and is self explanatory.
 - II.M. It is typically required for a facility to have an artificial barrier around the facility boundary. However, the department has determined that the existing facility security procedures meet the intent of this requirement for the facility, and therefore an artificial barrier is not required to be built at the Hanford Facility boundary. This waiver, however, is not intended to preclude the requirement for an artificial barrier around any individual unit on the Hanford Facility. This requirement will be evaluated on a unit by unit basis.
 - II.N.1. This is a standard permit condition and is self explanatory.
 - II.N.2. This is a standard permit condition and is self explanatory.
 - II.O.1. A facility wide inspection program is required to be implemented for the Hanford Facility.
 - II.O.2. The Hanford Facility Inspection Plan did not meet the requirements of the regulations as submitted and has therefore been modified through permit conditions.
 - II.O.2.a. This condition specifies requirements for a Facility Wide Inspection Program at the Hanford Facility. This requirement breaks the Hanford Facility into areas which are required to be inspected at least once per year.
 - II.O.2.b. This condition specifies the items which must be looked for during the Facility Inspection program. This condition only requires the details to be looked for and is not intended to specify how this is to be achieved.
 - II.O.2.c. This condition requires the Permittees to notify the regulatory agencies in advance of any inspections so that representatives of the agencies can be present during the inspections.
 - II.O.2.d. This condition requires remedial action to be taken if problems are identified during the inspection of the facility. The remedial actions are not specified, as they will need to be tailored to the problem identified.

- II.P. This is a standard permit condition and is self explanatory.
- II.Q.1. It is intended that all of the waste transportation activities which take place at the Hanford Facility be treated just as waste generated and transported to off-site facilities. Therefore, it is required that shipping papers be prepared and accompany all wastes transported on the facility. This condition specifies all of the requirements to be included on the shipping papers.
- It is recognized that some liquid waste transportation takes place completely through pipelines at the Facility and therefore it is not possible to comply with the provisions of this condition for the transport of these wastes. The department intends to deal with liquid waste transfers on a unit by unit basis and therefore has waived the requirements of this condition for those types of wastes. Liquid wastes which are not transported entirely through pipelines (i.e. using rail cars or tank trucks) are intended to be subject to this condition.
- II.Q.2. Any bulk, non-containerized loads are required to be covered to prevent any accidental release of the material during transport.
- II.R.1. This is a standard permit condition and is self explanatory.
- II.R.2. The department recognizes the necessity from an administrative and management standpoint to consolidate as much as practicable the reporting requirements of condition II.S.1. Therefore, the permittees will be required to submit information on equivalent materials only on a monthly basis. This condition specifies the dates by which the Department must receive these notifications.
- II.R.3. This is a standard permit condition and is self explanatory.
- II.S. The Department of Energy and the regulatory agencies have negotiated a Land Disposal Restriction agreement through the provisions of the FFACO. It is the intent of this permit to enforce only those LDR provisions of the state and federal programs which are not specifically identified in the FFACO.
- II.T. This condition incorporates the FFACO requirements for securing access to off-site areas for the purposes of remediation.
- II.U. This permit sets forth requirements for locating and mapping all underground pipes which have carried or continue to carry regulated wastes as identified in chapter 173-303 WAC. This

requirement includes all underground pipes at the Facility except those which are only subject to remedial action under the CERCLA past practice provisions of the FFACO. The Department recommends this information ultimately be placed into a Geographical Information System for easy access and updating.

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- II.U.1. This condition sets the time frame and specific requirements for mapping all pipes located outside of fenced security areas.
- II.U.2. This condition sets the time frame and certain requirements for process flow diagrams for underground piping in the 100K, 100N, 200 East, 200 West, 300 and 400 Areas.
- II.U.3. This condition sets the time frame and requirements for mapping all the underground pipes located in the 100K, 100N, 200 East, 200 West, 300 and 400 Areas.
- II.V. The Department is requiring that all pipes located outside a fenced security area be marked above ground for easy identification and location. The Department believes that these areas are not as controlled as areas within the security areas and that it is not necessarily expected that underground pipelines are located in these areas. Therefore, consistent with the regulations and with the intent of increased safety and better access to these locations, marking of pipes is warranted. At this time, the Department is not requiring the marking of all pipelines within the security areas. This may be required at a future date, but until better information on the number and locations of these pipelines is gathered, marking of these lines is not required.
- II.W.1. This is a standard permit condition which has been modified to define what "best efforts" are as related to obtaining other necessary permits. It is the intent of this definition that the Permittees be well aware of what the Department expects with respect to obtaining any required permits or approvals for projects which are subject to the conditions of this permit. Should the Permittees not meet this demonstration of "best efforts", the Permittees shall not be able to use the lack of obtaining other approvals or permits as a defense for noncompliance with the provisions of this permit.
- II.W.2. It is the intent that all other permits which are incorporated into this permit are completely severable. Further, it is intended that any noncompliance with other permits which are incorporated into this permit will be enforced through the provisions of that permit and not through the Dangerous Waste Permit.

- II.X.1. This is a standard permit condition and is self explanatory.
- II.X.2. It is the intent of this permit that, for activities which are covered both by the FFACO and this permit, any extension which is granted through the provisions of the FFACO shall automatically be incorporated into this permit without requiring a permit modification as specified in condition I.C.3. of this permit.

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PART III - UNIT SPECIFIC CONDITIONS

Chapter 1 - 616 Nonradioactive Dangerous Waste Storage Facility

- III.1.A. The 616 Nonradioactive Dangerous Waste Facility consists of a single building designed and constructed to store nonradioactive dangerous wastes. This unit is used solely to store wastes generated on the Hanford Facility prior to them being shipped off the Hanford Facility to a commercial Dangerous Waste TSD. This unit is only used for storage and no treatment is allowed to take place in the unit. 616 is used solely for nonradioactive materials.
- The 616 Nonradioactive Dangerous Waste Permit Application has been entirely incorporated into this permit. It is intended that all provisions of this permit application become enforceable conditions of this permit.
- III.1.B. The 616 Nonradioactive Dangerous Waste Facility Permit Application was not in full compliance with the Dangerous Waste Regulations. Therefore, amendments to this document through permit conditions are required.
- III.1.B.a. The wording in the text was changed to be consistent with the provisions of the permit.
- III.1.B.b. The wording in the text is changed to provide an accurate facility description for the Hanford Facility.
- III.1.B.c. This condition changes the wording in the text.
- III.1.B.d. This condition adds a sentence to clarify the definition of the Hanford Facility and to make it consistent with the permit.
- III.1.B.e. This condition changes the wording in the text to make the reporting requirements specified in this document consistent with those being required in the permit.
- III.1.B.f. This condition changes the wording in the text.
- III.1.B.g. This condition changes the wording in the text to make the application more enforceable.
- III.1.B.h. This condition ensures consistency with the reporting requirements of this permit.

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- III.1.B.i. This condition changes the wording in the text.
 - III.1.B.j. This condition changes the wording in the text.
 - III.1.B.k. This condition changes the wording in the text.
 - III.1.B.l. This condition sets additional requirements for the waste analysis plan to ensure that waste being received at this unit is properly documented.
 - III.1.B.m. This condition requires compliance with the petition process of the Dangerous Waste Regulations prior to using alternate test methods for purposes of this permit.
 - III.1.B.n. This condition specifies the analytical requirements for the waste analysis plan.
 - III.1.B.o. This condition specifies who may take verification samples of wastes being shipped to the 616 unit. It is the intent of this condition to ensure that an independent and representative sample is collected for purposes of waste verification.
 - III.1.B.p. This condition changes the wording in the text.
 - III.1.B.q. This condition changes the wording in the text.
 - III.1.B.r. This condition provides for collecting appropriate samples from concrete.
 - III.1.B.s. This condition changes the wording in the text.
 - III.1.B.t. This condition specifies Quality Control procedures to be used for purposes of collecting samples to be used by this unit.
 - III.1.B.u. This condition changes the wording in the text.
 - III.1.B.v. In order to ensure that the wastes which are intended to be sent to the 616 unit are actually the wastes being received at the unit, a 5% verification sampling requirement is imposed. A 5% frequency of sampling is being required as opposed to the typical 10% frequency for off-site facilities, due to the added controls placed upon the generation and shipment of the materials because all waste received is from on-site units.
 - III.1.B.w. This condition changes the wording in the text.
 - III.1.B.x. Should a generating unit be found to be sending improperly designated wastes to the 616 unit, the frequency of analysis for wastes from the generating unit will be increased. This

- condition sets the standards for this increased analytical frequency.
- III.1.B.y. This condition specifies the required procedures for verification sampling and analysis to ensure comparable results will be attained.
- III.1.B.z. This condition clarifies that only on-site generated wastes will be accepted at the 616 unit.
- III.1.B.aa. This condition clarifies the requirements of the text.
- III.1.B.bb. This condition specifies the reporting requirements after a release which requires any type of remedial action.
- III.1.B.cc. This condition is intended to clarify the responsibilities of the 616 staff.
- III.1.B.dd. This condition changes the wording of the text.
- III.1.B.ee. This condition is intended to clarify what standards will be required for sampling material which has been released.
- III.1.B.ff. This condition is intended to modify the checklists which are used for inspecting the emergency equipment at the unit. This condition requires changing the checklists to include the specific number of safety items which are required to be at the unit.
- III.1.B.gg. This condition changes the wording in the text to reference the appropriate attachment of the permit.
- III.1.B.hh. This condition changes the wording in the text.
- III.1.B.ii. This condition clarifies what must be investigated during closure to determine if the clean close standard has been met.
- III.1.B.jj. This condition changes the wording in the text.
- III.1.B.kk. This condition clarifies the analyses which will be required during closure.
- III.1.B.ll. This condition changes the wording in the text.
- III.1.B.mm. This condition changes the wording in the text.
- III.1.B.nn. This condition changes the wording in the text.
- III.1.B.oo. This condition is intended to clarify the location of records which are kept in the 616 unit operating record. It is

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intended to be consistent with the requirements for record keeping in the permit.

III.1.B.pp. This condition changes a typographical error in the permit.

III.1.B.qq. This condition explains where information on the chemical, biological, and physical properties of the waste to be handled at 616 can be found.

III.1.B.rr. This condition specifies the procedure documents that have been incorporated into this permit.

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183-H Solar Evaporation Basins Fact Sheet

II.2.A.

The 183-H Solar Evaporation Basins (Basins) are located in the 100-H Area of the Hanford Reservation. This unit consists of four concrete tanks each measuring 52 feet wide by 128 feet long with an average depth of about 8 feet. The basins are connected side-to-side and thus have either one or two common walls shared with the adjoining basin(s). These basins originally functioned as part of a process water filter plant from 1949 until 1965 in support of the now abandoned H Reactor. Beginning in July 1973, these basins were used to reduce the volume of liquid mixed waste (both chemically and radiologically contaminated) through the use of natural evaporation. The basins received their last waste shipment in November 1985. During this period of operation, approximately 2.5 million gallons of waste were received by the basins.

The primary waste received were spent acid etch solutions (mostly nitric, sulfuric, hydrofluoric, and chromic acids). Metal constituents in this waste included copper, silicon, zirconium, aluminum, chromium, manganese, nickel, and uranium. Typically these acidic solutions were reacted with excess sodium hydroxide resulting in a slurry of waste liquid and metal precipitates which was then transported and discharged to the basins. Although designation of these wastes was never required, they would have designated as dangerous and/or extremely hazardous wastes for corrosivity, toxicity, and carcinogen content. Facility records also indicate that 2.25 pounds and 4.5 gallons of listed waste were discharged to the basins in 1976 and 1977.

Based upon the Basin groundwater monitoring network, it is evident that the basins leaked contamination until they were synthetically lined in 1977. Since that time, concentrations of contaminants indicating leakage (chromium, nitrate, sodium, gross alpha and gross beta) have dramatically declined and are now at or near Washington State standards for ground water quality. Ground water contamination issues are deferred to U USDOE-RL's 183-H Solar Evaporation Basins Postclosure Permit Application. It should be noted that the closure plan only requires groundwater monitoring. Groundwater remediation, if necessary, will be addressed in the 183-H Solar Evaporation Basins Postclosure Permit Application.

Revision 3 of the closure plan allows for two closure options: 1) closure as a landfill with contamination remaining in place, and 2) clean closure with contamination achieving background levels. However, an Ecology policy developed since the submittal of the Revision 3 document provides a third

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option which allows reduced postclosure standards (modified landfill closure) if contamination is below the cleanup concentration limits specified in the policy. Furthermore, the presence of groundwater contamination beneath the Basins requires a fourth option to be available. The choice of options will be dependent upon the results of soil, concrete, and groundwater sampling activities. The four options are outlined as follows:

<u>Option No and Title</u>	<u>Contamination Remaining</u>	<u>Minimum Postclosure Requirements¹</u>
1. Landfill Closure	- Soil or concrete contamination > policy concentrations ² - Groundwater contamination > Background Concentrations	Full landfill requirements to include continued groundwater monitoring
2. Modified Landfill Closure	- Soil and concrete contamination < policy concentrations but > background concentrations - Groundwater contamination > Background concentrations	Reduced landfill requirements ³ determined by sampling results to include continued groundwater monitoring
3. Modified Clean Closure	- Soil and concrete contamination < background concentrations - Groundwater contamination > Background concentrations	Continued groundwater monitoring
4. Clean Closure	- Soil and concrete contamination < background concentrations - Groundwater contamination < Background concentrations	None

¹These requirements only highlight the major differences in postclosure activity required for each option.

²Policy concentrations shall be cleanup concentration limits specified in the Nuclear and Mixed Waste Program policy entitled "Soil Cleanup/Remediation for Hanford".

³Reduced landfill requirements shall be set based upon the Nuclear and Mixed Waste Program policy entitled "Soil Cleanup/Remediation for Hanford" and the sampling results obtained during closure.

III.2.B. Amendments to the Plan are required to correct typographical errors, specify submittals and notifications as permit

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- conditions, and to add additional requirements to Basin closure.
- III.2.B.a. The text was modified to account for regulatory and technical revisions to the statutes, regulations, and guidance documents cite in the text.
- III.2.B.b. The reference to WAC 173-303-700 is deleted because it only applies to the Washington Extremely Hazardous Waste Facility which has never been built.
- III.2.B.c. The date for submittal of closure cost estimates is changed to October 1992 for consistency with the Permit.
- III.2.B.d. The phone number is modified to correct a typographical error.
- III.2.B.e. Unusual Occurrence Reports and Off Normal Occurrence Reports are submitted to the Department for assessment of environmental or regulatory impact.
- III.2.B.f. The submittal of closure cost estimates is required by WAC 173-303-390(3) to support the choice of closure options and provide a planning and budget tool.
- III.2.B.g. The written notification that closure has begun is required by WAC 173-303-610(3)(c).
- III.2.B.h. This condition augments the concrete sampling and analysis activities described in the Plan with the Permittees internal work plan for this activity.
- III.2.B.i. This condition augments the soil sampling and analysis activities described in the Plan with the Permittees internal work plans for this activity.
- III.2.B.j. Results from concrete sampling must be submitted in a form useable to make closure option decisions.
- III.2.B.k. Results from soil sampling must be submitted in a form useable to make closure option decisions.
- III.2.B.l. Submittal of sampling and analysis plans is required by WAC 173-303-610(3)(a)(v). Results from these sampling events must be submitted in a form useable to make closure option decisions.
- III.2.B.m. This condition requires the Permittees to justify their closure option based upon sampling and analysis results and applicable regulations.

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- III.2.B.n. This condition requires the Permittees to submit certifications of closure within 60 days of closure, as required by WAC 173-303-610(6).
- III.2.B.o. This condition specifies the information required by the Department and Agency to approve the design and installation of an engineered cover system compliant with WAC 173-303-665(6).
- III.2.B.p. The Construction Inspection Policy required in this condition provides the Department with a means to oversee construction activities to ensure regulatory and technical compliance.
- III.2.B.q. Postclosure notifications are required to assess compliance with WAC 173-303-610(7) and (8).
- III.2.B.r. The information required here is necessary for the Department to approve reduced landfill closure requirements.
- III.2.B.s. The survey plat is required by WAC 173-303-610(9).
- III.2.B.t. The notice on the property deed and certification are required by WAC 173-303-610(10).
- III.2.B.u. This submittal is required by WAC 173-303-610(8)(a).
- III.2.B.v. Quarterly and annual reports are required per WAC 173-303-645(10).

Chapter 3 - The Hanford Waste Vitrification Facility

- III.3.A. The Hanford Waste Vitrification Plant (HWVP) is a new unit which will be located in the 200-E area of the Hanford Facility and will be designed to treat the high activity fraction of mixed wastes currently sorted in the Double-Shell Tank System at the Hanford Facility. Mixed Waste from the Double-shell Tank system will be pretreated at a pretreatment facility to separate the high and low activity fractions. The high activity fraction will be piped to a double-shell tank before transfer to the HWVP. At the HWVP, the waste will be treated in a series of tanks and in a miscellaneous unit (melter). Treatment will result in the high activity fraction of the waste being fixed in borosilicate glass for eventual disposal in a national repository.

The HWVP will consist of 12 buildings to house the vitrification process, glass canister storage and the process

and support systems. The construction materials used in the HWVP will be noncombustible and/or protective coated to resist corrosion as appropriate for the application. The HWVP's design life is 40 years.

The HWVP will receive a Subpart X (miscellaneous unit) permit. At the current time, Ecology does not have final authority to issue Subpart X RCRA permits. Ecology has applied for authorization for RCRA permitting standards for Subpart X. EPA anticipates taking final action on this application prior to the effective date of the final permit. Therefore, EPA sees no need to issue a Federal RCRA permit for the HWVP site.

The HWVP is being permitted in modules. The permitting is based upon the design/construction schedules for the HWVP. As the HWVP is considered a new unit, a final permit must be issued prior to initiation of construction. The FFACO requires construction of the HWVP to begin in April 1992. The design of the HWVP will not be completed until at least 1994. A typical permit for a new unit would require approximately 80% of the design to be completed prior to issuing a permit. Due to the design process used for the HWVP this is not possible. Therefore, as provided in the regulations, a detailed compliance schedule for submittal of the appropriate design documents is required. As the documents are submitted, the permit will be modified to incorporate the undated designs. Until the Department has approved the designs for any specific component of the unit, there will be no construction of that component of the unit. In other words, 100% of the design will be required to be approved by the Department before authorization to proceed with construction is given via a permit modification.

This modular permitting is being allowed due to the necessity of meeting the requirements for permitting a new unit and maintaining consistency with the requirements of the FFACO. This permitting approach is not intended to be allowed at any other unit at the Hanford Facility.

The Hanford Waste Vitrification Plant Dangerous Waste Permit Application has been entirely incorporated into this permit. It is intended that all provisions of this permit application become enforceable conditions of this permit.

III.3.B. The Hanford Waste Vitrification Plant Dangerous Waste Permit Application was not in full compliance with the Dangerous Waste Regulations. Therefore, amendments to this document through permit conditions are required.

III.3.B.1. Text changes covered under items number 1 through 49 of this

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condition were at the request of the Permittees as described in their letter 91-RPB-022 dated November 20, 1991. These changes are necessary to update the design due to the removal of certain components of the unit (i.e. Lag Receipt Storage Tank).

- III.3.B.2. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A110.
- III.3.B.3. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A130.
- III.3.B.4. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A140.
- III.3.B.5. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A150.
- III.3.B.6. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A160.
- III.3.B.7. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A170.
- III.3.B.8. This condition is the latest revision of the design drawings for specifications as provided by Fluor Daniels, Inc. for construction package A180.
- III.3.B.9. In order to approve modifications on a timely basis as required to allow ongoing construction of the HWVP under a phased permit approach, the notification required by WAC 173-303-830(4)(a)(i)(A) and (B) for Class 1 changes will be submitted on a monthly basis. These notifications will be submitted by the 21st day of each succeeding month.
- III.3.B.10. Modification Compliance Schedule is required as set forth in WAC 173-303-830(6).
- III.3.B.11. This modification is self explanatory.
- III.3.B.12. This modification is self explanatory.
- III.3.B.13. It is the intent of this permit that construction activities must meet the requirements of Chapter 173-303 WAC, Chapter

173-216 WAC and Chapter 173-220 WAC.

- III.3.B.14. The construction activities cannot cause the discharge of pollutants to waters of the State except as authorized pursuant to Chapter 173-216 WAC and Chapter 173-220 WAC.
- III.3.B.15. It is the intent, that although the design has not been completed for the air emission controls, that the HWVP be constructed in such a manner as to reduce all air pollutants to the maximum extent practicable. This condition cites the regulations which will have standards which apply to the air emissions at the HWVP.
- III.3.B.16. This requirement is made pursuant to Chapter 173-400-110 WAC.
- III.3.B.17. This requirement is made pursuant to Chapter 173-400-110 WAC.
- III.3.B.18. The issue of regulation of radionuclides as a dangerous waste under the authority set forth in Chapter 173-303 WAC has not come to final resolution. Statements concluding that radionuclides are not subject to regulation as a Dangerous Waste are not fact and should not be presented as such in the permit application. At this time, it is not the intent of the state to regulate radionuclides as a Dangerous Waste. However, this issue remains to be resolved at a later date.

Part IV - Corrective Actions For Past Practice

HSWA Determination

Pursuant to the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the Dangerous Waste Regulations (Chapter 173-303 WAC), EPA and Ecology have made a determination that there have been releases to environmental media from past practices at the Hanford Facility which could present a potential threat to human health or the environment. The Hanford Federal Facility Agreement and Consent Order (FFACO) is the mechanism being used to perform many of the investigations and cleanups required at the Hanford Facility.

Section IV of the draft Dangerous Waste Permit contains provisions requiring investigation and cleanup of units requiring further action which were excluded from the FFACO or which are otherwise determined to be necessary to address in this permit. The draft permit requires the Permittees to submit RCRA Facility Investigation (RFI) workplans within a specified number of days from the effective date of the permit. The public will then be given an opportunity to comment on the proposed cleanup activities (through the permit modification process) before the final remediation begins.

Table IV.1 of the permit identifies the Solid Waste Management Units (SWMUs) that are subject to Section IV of the permit. The SWMUs identified at the Bonneville Power Administration (BPA and US Ecology are included as part of this permit for purposes of corrective action, since BPA and US Ecology lands are owned by the United States Department of Energy (USDOE), and thus are considered part of the contiguous facility for the purpose of corrective action under RCRA. In this case, therefore, the landowner (USDOE), as the permittee, is being required to perform corrective action to remediate releases from these units as necessary to protect the human health and the environment.

EPA Region 10 and Ecology are aware of the March 5, 1986, Notice of Intent to Propose Rules (51 Fed. Reg. 7723-7724) which states that major subdivisions of federal agencies are to be recognized as owners for purposes of corrective action. However, the proposed rulemaking also states that until final rule clarifying EPA's position was proposed, EPA "... intends to recognize principal subdivisions as a matter of statutory interpretation on a case-by-case basis in individual permit proceedings." See 51 Fed. Reg. at 7723. In the present case, it is reasonable to include the BPA Midway SWMUs at this time because the property is within the RCRA definition of a contiguous facility, there have been releases from this SWMU identified in the RCRA Facility Assessment, and BPA is voluntarily undertaking an action to remediate the releases.

IV.A.1.a. It is the intent that this permit not address RCRA Past Practice (RPP) units which are specifically identified in the FFACO until the Work Plan or other documents specifically identified in the FFACO are approved. At the time of the approval of the document and after the required public comment period of the FFACO, the permit will be modified to include these documents as an enforceable part of this document.

There may be cases in which units identified in the FFACO are addressed in Part IV of the permit prior to initiating the work through the FFACO. These units are identified on a case by case basis and the rationale for these decisions will be given.

IV.A.1.b. The units identified as CERCLA Past Practice (CPP) units are completely excluded from the terms of this permit as they fall within the regulatory authority of the CERCLA program as opposed to the RCRA program. The FFACO specifies the work required for these units. The investigation and ultimate clean-up actions taken pursuant to the RPP or CPP process are intended to be equivalent as specified in the FFACO.

IV.A.2. As discussed above, certain units on the Hanford Facility are not included as part of the FFACO. These units will be addressed solely through the provisions of the permit.

IV.B.1. This is a standard permit condition and is self explanatory.

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- IV.B.2. This is a standard permit condition which has been modified to reference the FFACO.
- IV.B.3. This is a standard permit condition and is self explanatory. This condition further specifies the number of copies of documents which are required to be submitted to the Department and the Agency.
- IV.B.4. This condition specifies the modification procedures for the inclusion of required documents into the permit. It is intended that any document which is incorporated into this permit, whether originally generated through the permit or the FFACO, be fully enforceable through this permit upon inclusion in the permit.
- IV.B.5. This is a standard permit condition and is self explanatory.
- IV.C.1. This is a standard permit condition and is self explanatory.
- IV.C.2. This is a standard permit condition and is self explanatory.
- IV.D.1. This is a standard permit condition which addresses the use of Interim Measures (IM). This provision is intended to be available to the Permittees or the regulatory agencies to address threats to human health or the environment in a more expeditious manner than the formal past practice process.
- IV.D.2. This is a standard permit condition and is self explanatory.
- IV.D.3. This is a standard permit condition and is self explanatory.
- IV.D.4. This condition specifies the process which will be used by the regulatory agencies to respond to IM documents prepared pursuant to this permit.
- IV.D.5. This is a standard permit condition and is self explanatory.
- IV.D.6. This condition specifies the process which will be used by the regulatory agencies to respond to documents for engineered IM prepared pursuant to this permit.
- IV.D.7. This is a standard permit condition and is self explanatory.
- IV.D.8. This provision specifies that changes to engineering plans and specifications required by Part IV will be handled in the same manner as similar changes identified in Parts I, II and/or III of the permit.
- IV.E.1. This is a standard permit condition and is self explanatory.

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- IV.E.2. This is a standard permit condition and is self explanatory.
- IV.E.3. This is a standard permit condition and is self explanatory.
- IV.E.4. This is a standard permit condition and is self explanatory.
- IV.F.1. This condition specifies the requirements for the Permittees if they identify new SWMUs.
- IV.F.2. This is a standard permit condition and is self explanatory.
- IV.F.3. This is a standard permit condition and is self explanatory.
- IV.F.4. This is a standard permit condition and is self explanatory.
- IV.F.5. It is intended that based upon the SWMU Assessment (SA) report the regulatory agencies will make a decision regarding the requirements of the newly identified SWMU. If further investigations will be required, the agencies may decide to include the SWMU within the FFACO as a RPP which would be covered by this permit only when plans are approved as specified previously. The SWMU may be addressed as a CPP in which case it will not be subject to this permit. Finally, the agencies may address any requirements solely through the provisions of this permit.
- IV.G.1. This condition sets the notification requirements when new releases are identified at any existing SWMU.
- IV.G.2. This is a standard permit condition and is self explanatory.
- IV.G.3. This is a standard permit condition and is self explanatory.
- IV.G.4. This is a standard permit condition and is self explanatory.
- IV.G.5. This is a standard permit condition and is self explanatory.
- IV.H.1. This is a standard permit condition for requiring the submittals of RFIs and is self explanatory.
- IV.H.1.a. This is a standard permit condition and is self explanatory.
- IV.H.1.b. This is a standard permit condition and is self explanatory.
- IV.H.1.c. This is a standard permit condition and is self explanatory.
- IV.H.2. This is the standard procedure for reviewing and approving documents for the permit.
- IV.H.2.a. This is the standard procedure for reviewing and approving

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- documents for the permit.
- IV.H.2.b. This is the standard procedure for reviewing and approving documents for the permit.
- IV.H.3. This is the standard modification procedure being utilized for the permit.
- IV.I.1. All Investigative Derived Wastes (IDW) generated which is considered purgewater will be handled in accordance with the previously approved purgewater management plan.
- IV.I.2. It is intended that all IDW which is not groundwater be managed in accordance with the container management standards of the Dangerous Waste Regulations.
- IV.I.3. This condition specifies the types of markings for containerized IDW.
- IV.I.4. This condition specifies the types and frequency of sampling and analysis for generated IDW. It is intended that the analyses which are required be sufficient to make a determination on the proper management of the material. It is not the intent of this permit to require full Dangerous Waste Designation of the material.
- IV.I.5. This condition is intended to allow the permittees to request reduced sampling and analysis requirements for IDW if it is clear that the material being generated is uniform in nature.
- IV.I.6. This condition specifies time frames for the submittal of validated analytical results for IDW.
- IV.I.7. This condition requires the permittees to keep all IDW until a determination on its disposition is made by Ecology.
- IV.I.8. This specifies that IDW be sent to a Dangerous Waste unit or facility for its continued management after 90 days. It is intended, although not required, that the permittees will manage the material in the same location on the Hanford Facility. This will reduce the duplication of inspections, etc. for properly maintaining the waste. Interim status or final permitted units are specified as these units are the most capable of properly managing this type of material.
- IV.J.1. This is a standard permit condition for requiring the submittals of the RFI final and summary reports.
- IV.J.2. This is the standard procedure for reviewing and approving documents for the permit.

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- IV.J.2.a. This is the standard procedure for reviewing and approving documents for the permit.
- IV.J.2.b. This is the standard procedure for reviewing and approving documents for the permit.
- IV.K.1. This is a standard permit condition for work not requiring a Corrective Measure Study (CMS). This provision is intended to expedite remedial actions where it clear what remedial action is necessary.
- IV.L.1. This condition is intended to identify the trigger for requiring corrective measures at a SWMU. If health-based levels as identified in the permit are exceeded, a CMS will be required leading to a corrective measure.
- IV.L.2. This is a standard permit condition which has been modified to be integrated with the requirements of the FFACO.
- IV.L.2.a. This condition specifies the information required to be in a CMS plan.
- IV.L.3. This is a standard permit condition and is self explanatory.
- IV.L.3.a. This is the standard procedure for the review of documents used in this permit.
- IV.M.1. This is a standard permit condition for requiring a Corrective Measures Study final report.
- IV.M.2. This is the standard procedure for the review of documents used in the permit.
- IV.M.3. This is a standard permit condition and is self explanatory.
- IV.N.1. This is a standard permit condition for the selection of a remedy and the implementation of corrective measures.
- IV.N.2. This is a standard permit condition and is self explanatory.
- IV.N.2.a. This is a standard permit condition and is self explanatory.
- IV.N.2.b. This is a standard permit condition and is self explanatory.
- IV.N.2.c. This is a standard permit condition and is self explanatory.
- IV.N.2.d. This is a standard permit condition and is self explanatory.
- IV.N.2.e. This is a standard permit condition and is self explanatory.

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- IV.N.3. This is the standard document review procedures used in the permit.
- IV.O.1. This is the standard procedure used for modifications of the permit to include documents into the permit.
- IV.O.1.a. This condition is intended to specify what information is required for the modification of the permit for a remedy.
- IV.P. This section of Part IV sets specific schedules of compliance for individual SWMUs or groups of SWMUs.
- IV.P.1. The Midway Substation and Community is a part of the Hanford Facility which is operated by BPA. BPA had initiated a voluntary investigation prior to the issuance of the permit. BPA is currently ready to proceed with a corrective measure for this area. The following permit condition specifies the work that BPA has planned to do. It is the intent of BPA as required by this permit to excavate and remove the materials from this location immediately.
- IV.P.1.a. This condition specifies tasks to be accomplished for the selected remedy.
- IV.P.1.b. This condition specifies tasks to be accomplished for the selected remedy.
- IV.P.1.c. This condition specifies tasks to be accomplished for the selected remedy.
- IV.P.1.d. This condition specifies tasks to be accomplished for the selected remedy.
- IV.P.1.e. This condition requires that a plan be submitted which will demonstrate the effectiveness of the remedy through verification sampling and analysis of the soils remaining after implementation of the remedy.
- IV.P.1.f. This condition requires a plan be submitted for the remediation of areas at Midway. Further this condition utilizes the standard procedures for document review used in the permit.
- IV.P.2. There are a number of other BPA operated areas at the Hanford Facility. This condition is intended to require that a plan be submitted for the investigation of all of these areas.
- IV.P.3. The North Slope is an area which the Department of Energy had previously used. It has since been vacated and is opened to the public as a wildlife refuge. A North Slope Investigation

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was undertaken by Energy and it identified numerous SWMUs. The following series of requirements is specific to SWMUs in the North Slope area.

IV.P.3.a. This condition specifies actions required to be taken at an abandoned well site on the North Slope.

IV.P.3.b. This condition requires a plan be submitted for a CMS to address the 2,4-D Burial Site on the North Slope. This site is specifically identified in the FFACO as a unit which will ultimately be investigated. It has been determined that this area should be accelerated as it is located in a public access area. Further, the 2,4-D contaminated soils are an uncontrolled shallow burial site. For these reasons, this site poses a potential increased threat to the public or environment and as such should be addressed in the near future. Finally, the corrective measure for this unit will most probably be quick and inexpensive and if done now will obviate the need to address this site in the more time consuming and expensive formal process of the FFACO.

IV.P.3.c. This condition specifies the abandonment of all the wells on the North Slope in accordance with state law.

IV.P.3.d. This condition specifies the remediation of solid wastes currently located on the North Slope. The nature of the material collected during this process will determine the final disposal requirements (i.e., solid waste or dangerous waste disposal sites).

IV.P.e. This condition is self explanatory.

IV.P.f. This condition requires the Permittees to submit a plan which will specify the implementation of the remaining recommendations (not previously identified in the permit) of the North Slope Report that was prepared by the permittees.

IV.P.4. The US Ecology site is a commercial low-level radioactive waste disposal site. This site is owned by the Department of Energy which leases the land to the State of Washington, which in turn sub-leases the site to US Ecology. It has been determined that the US Ecology site is a SWMU requiring investigation.

IV.P.4.a. It is the intent of the regulatory agencies to have the US Ecology site remediated. To accomplish this, however, Ecology intends to address remediation of the site under the authority of the Model Toxics Control Act (MTCA). Based upon the results of the remedial investigation, a decision will be made on the next phase of the work.

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However, as the unit is a SWMU, if, for any reason, the MTCA action is not progressing expeditiously, Ecology and the Administrator will require the Department of Energy to investigate and remedy the site.

It is not the intent of this permit to stop the operations of the US Ecology site, but rather to ensure that the site is in a state which will not present a potential hazard to human health or the environment.

IV.P.5. The 351 Substation is a location at which BPA once operated. Upon the discovery of uranium yellow cake, Energy fenced and secured the area. This condition requires the permittees to submit a plan for the investigation of the extent of the uranium contamination.

IV.P.6. The Central Waste Landfill is a SWMU which is specifically identified in the FFACO. It is currently not assigned a lead agency or designated as a RPP or CPP. It is, however, located immediately adjacent to the Nonradioactive Dangerous Waste Landfill. Further, the Solid Waste Landfill is an operating solid waste disposal site which is required to be permitted under chapter 70.95 RCW. Finally, the solid waste landfill has documented releases of hazardous constituents which have migrated into the aquifer..

It is the intent of the Department and the Agency that this site be investigated and remediated as soon as practicable. Therefore, it is warranted to expedite the required investigation through the permit as opposed to through the FFACO.

IV.P.7. The Permittees issued a report in January 1991 which identified 244 units at the Hanford Facility which were SWMUs but which were not within the scope of the FFACO. This condition requires information submitted regarding these units. This information will be used to make a determination whether further work will be required at any or all of these units.

In addition, this condition specifically requires the submittal of information regarding a Munitions Burial Ground located on the Hanford site. The information submitted on this unit will help the Director and the Administrator make a determination on this area.

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