

**FACT SHEET FOR STATE WASTE
DISCHARGE PERMIT NO. ST 4511**

**ISSUED TO
UNITED STATES DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
RICHLAND, WASHINGTON**

**BY STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
RICHLAND, WASHINGTON**

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1.0 INTRODUCTION

This Fact Sheet is a companion document to the draft State Waste Discharge Permit No. 4511. The Washington State Department of Ecology (Ecology) is proposing to re-issue the Categorical State Waste Discharge Permit to the United States Department of Energy, Richland Operations Office (USDOE-RL)(Permittee). The Permit allows for the continued discharge of wastewater to the ground and groundwaters of Washington State. This Fact Sheet explains the nature of the proposed discharge, Ecology's decisions on limiting the pollutants in the wastewater, and the regulatory and technical basis for these decisions.

Washington State law [Revised Code of Washington (RCW 90.48.080 and 90.48.162)] requires that a permit be issued before discharge of wastewater is allowed to waters of the state. Regulations adopted by the state include procedures for issuing permits [Washington Administrative Code (WAC 173-216)], and water quality criteria for groundwaters (WAC 173-200). They also establish requirements which are captured in individual permits.

This Fact Sheet and draft Permit are available for review by interested persons as described in Appendix B-Public Involvement Information.

The Fact Sheet and draft Permit have been reviewed by Ecology and by the Permittee. Errors and omissions identified in these reviews have been corrected. The Fact Sheet will not be revised. Changes to the draft Permit will be addressed in Appendix D - Response to Comments.

2.0 GENERAL INFORMATION

Applicant: United States Department of Energy, Richland Operations Office

Facility Name and Address: Hanford Site
P.O. Box 550
Richland, Washington 99354

Types of Discharge: Hydrotest, Construction, Maintenance, Cooling, Condensate Wastewater, and Industrial Stormwater

Discharge Location: Hanford Site (all areas controlled by the Permittee)

Contact: Mary F. Jarvis
Regulatory and Compliance Analysis Division
U.S. Department of Energy, Richland Operations Office
(509) 376-2256

Responsible Official: Joel B. Hebdon, Director
Regulatory and Compliance Analysis Division
U.S. Department of Energy, Richland Operations Office
(509) 376-5441

3.0 BACKGROUND INFORMATION

This Fact Sheet has been prepared as a companion document to the draft State Waste Discharge Permit No. 4511 for the Hanford Site. The draft Permit is a renewal for three previously issued categorical wastewater discharge permits. The first of the categorical wastewater discharge permits (ST 4508) was scheduled to expire on May 30, 2002. Each of the subsequent permits (ST 4509 and ST 4510) was scheduled to expire on May 1, 2003, and April 1, 2004, respectively. Each permit required that a renewal application for the permit be submitted at least 180 days before the expiration date of the permit. As a result of cost effectiveness and overall operational efficiencies associated with these three Categorical State Waste Discharge Permits, the Permittee proposed and Ecology agreed that the three categorical permits be combined into a single permit. In keeping with this agreement, a permit renewal application was prepared that combined the wastewater streams identified in the three previously issued permits. The combined permit renewal application *Documentation for Renewal of State Waste Discharge Permits ST 4508, ST 4509, and ST 4510* (DOE/RL-2001-60, Rev.0), was received by Ecology on November 28, 2001. The application was reviewed by Ecology and deemed complete on April 29, 2002. As a result of this review, Ecology instructed USDOE-RL to continue use of the existing permits until a new consolidated permit was issued.

The following is a brief review of the background and events that led to the issuance of the three categorical permits. On December 23, 1991, the Permittee and Ecology agreed to adhere to the provisions of the Department of Ecology Consent Order No. DE 9INM-177 (Consent Order). The Consent Order listed regulatory milestones for liquid effluent streams on the Hanford Site and required compliance with the permitting requirements of WAC 173-216 or WAC 173-218 where applicable.

Hanford Site liquid effluent streams discharging to the soil column and groundwater were categorized in the Consent Order as Phase I Streams, Phase II Streams, and Miscellaneous Streams. Phase I and Phase II Streams were streams identified as contaminated or potentially contaminated. Miscellaneous Streams were those liquid effluent streams discharged to the ground that were not categorized as Phase I or Phase II Streams.

Miscellaneous Streams discharging to the soil column and groundwater on the Hanford Site were subject to the requirements of several milestones identified in the Consent Order. The *Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams* [(DOE/RL-93-94, Rev. 1) (Plan and Schedule)] provided a schedule for the permitting of Miscellaneous Streams to satisfy one of the Consent Order requirements. This disposition of Miscellaneous Streams is based on compliance with the *Hanford Federal Facility Agreement and Consent Order* [Tri-Party Agreement (Ecology, EPA, USDOE-RL, 1994)], the Consent Order, WAC 173-216, WAC 173-218, WAC 173-200, and RCW 90.48.

To facilitate the permitting process, the Plan and Schedule divided most of the Miscellaneous Streams into four separate categories. Each category of similar streams was to be permitted as a group. One categorical permit application was submitted for each of the categories. One application was due each year, starting in 1995. The first of the applications was submitted as planned, and *State Waste Discharge Permit ST 4508* was issued on May 30, 1997, to cover the first category of streams (hydrotest, maintenance, and construction discharges). The second application was submitted in September 1996, and *State Waste Discharge Permit ST 4509* was issued on May 1, 1998, to cover the second category of streams (cooling water and condensate discharges). The third application, due in September of 1997, was eliminated because of stream reductions on the Hanford Site. The fourth and last scheduled application was submitted in September 1998, and *State Waste Discharge Permit ST 4510* was issued on April 1, 1999, to cover industrial stormwater discharges to ground. The process to permit a group of streams in one 'categorical permit' is based on an innovative agreement between Ecology and the Permittee and is not based on Ecology Water Quality Program policy or on the *Implementation Guidance for the*

Groundwater Quality Standards. Categorical permits are unique to the Hanford Site clean up and are not used elsewhere in the state. The categorical permits are intended to provide compliance with regulations while providing a streamlined and cost-effective permitting approach.

4.0 DESCRIPTION OF WASTEWATER DISCHARGES

The wastewater discharges addressed in the draft Permit continue to include the discharge of hydrotesting, construction, and maintenance wastewater; the discharge of cooling water and condensate; and the collection and discharge of industrial stormwater. Wastewater streams covered under the draft Permit are summarized in this section. Additional detail on these discharges is provided in the fact sheets that accompanied the three previously issued draft categorical permits. The only addition to the list of discharges is wastewater that results from the Waste Treatment Plant and some incidental releases from the other Hanford facilities. These additional discharges are of the same nature of the wastewater as listed below:

Hydrotest Discharges: Hydrotest discharges are generated during hydrotesting of a system or component of a system, and during research and development testing. Research and development testing includes tracer studies and other types of experimental studies. Development testing is performed to provide or develop design information, concepts, or criteria.

Maintenance Discharges: Maintenance discharges are generated during routine drainage, flushing, washdown, and from maintenance and testing. Routine drainage includes draining various filter basins, water tanks, sumps, pipe systems, and reservoirs in order to perform maintenance activities. Flushing includes activities related to the removal of dirt and debris from the inside of pipes and equipment and disinfecting potable water lines. Washdown includes activities related to the pressure washing of equipment and building surfaces for painting and/or resurfacing, the removal of salts and debris from roadways, and general building cleaning associated with window washing, etc.

Construction Discharges: Construction discharges are generated during concrete curing, acid etching, and pressure washing. Discharges related to concrete curing include water spray used during the curing process. Pressure washing of surfaces before application of a protective coating and the cutting of concrete with high pressure water are included in this category of wastewater discharge streams. Not included in this category is wastewater resulting from washing concrete trucks, pumps, forms, and associated equipment as exempted by Permit Condition G.12.F.

Cooling Water Discharges: Cooling water discharges are generated from heat generating systems that use water to cool parts of the equipment. Discharges of cooling water from systems such as air compressors, diesel engines, air conditioning, evaporative cooling, and ice machines that are discharged to engineered structures are included in this draft Permit. Discharges of cooling water that are not discharged to an engineered structure do not require permitting. The basis is documented in the Plan and Schedule that states a permit application is to be submitted for discharges on the cooling water and condensate “qualitative inventory”. Qualitative inventory is described in the Plan and Schedule as discharges from a fixed location to an engineered disposal structure at a measurable flow rate.

Condensate Discharges: Condensate discharges from heating, ventilation, and air conditioning systems, air compressors, and ice machines that discharge to an engineered structure are included in the draft Permit. Condensate that is not discharged to an engineered structure does not require permitting. The basis is documented in the Plan and Schedule that states a permit application is to be submitted for discharges on the cooling water and condensate “qualitative inventory”. Qualitative inventory is

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described in the Plan and Schedule as discharges from a fixed location to an engineered disposal structure at a measurable flow rate.

The exception is for steam condensate from steam lines. The Plan and Schedule deferred permitting of steam condensate discharges to injection wells registered under WAC 173-218 indefinitely, due to low flow rates and low potential for contamination. However, the Plan and Schedule requires permitting of steam condensate that does not discharge to injection wells. As a result, condensate discharges from steam lines that do not discharge to an injection well are included in the Permit.

Water Tanks: Potable and raw water stored in water tanks is allowed to discharge to help eliminate mineral and bacteria buildup within the tanks and to prevent freezing.

HAMMER Pond: The Hazardous Material Management and Emergency Response (HAMMER) Training Facility maintains a pond that provides water during firefighting exercises. The pond's water source is potable water from the City of Richland. Although the pond is equipped with a liner, an estimate has been made that as much as 1,500 gallons per day of water could be leaking to the soil column. The pond is located in an area where no previous industrial activity was performed and no surface or subsurface soil contamination has been found.

Incidental Releases: Activities associated with operations and routine maintenance may result in small incidental releases of wastewater within the facility's boundaries (e.g., water skid maintenance and pump testing) that do not meet the location or distance limits specified in Permit Condition S.4.A.1 or S.4.A.2. These facility activities are subject to permit conditions identified in S.7.D.1. These releases will be addressed in the next revision of the Pollution Prevention, Best Management Practices (P2BMP) Plan. A draft of the revised P2BMP Plan will be due to Ecology within 180 days following issuance of the draft Permit (refer to Special Permit Condition S.5 of the draft Permit).

Waste Treatment Plant: Ecology has added additional permit coverage, Special Permit Condition S.7.E., for a potential Waste Treatment and Immobilization Plant (WTP) Balance of Facilities firewater discharge. Significant damage to High Level Waste (HLW) and Low Activity Waste (LAW) melters and LAW pour caves will occur in the event of a loss of cooling water to those components. A loss of site power (LOSP) would put these components in jeopardy of being without cooling water and subsequent damage. In the event of a LOSP, cooling water to the HLW and LAW melters and LAW pour caves cooling, needs to be restored within 15 minutes and 20 minutes respectively in order to prevent significant damage to the melters and other equipment.

Firewater will be hard piped to the process cooling water supply lines to the heat exchangers of each cooling loop. This firewater will be utilized to provide necessary cooling in the event of a LOSP. The initial discharge of firewater, up to the first hour, can be returned to the Cooling Tower Facility through normal cooling water return lines. After the initial discharge, controlled discharges to storm drains immediately outside HLW and LAW facilities would be required. Discharge volumes are estimated at 205 gallons per minute (gpm) for the HLW facility and 900 gpm for the LAW facility.

A large number of the tanks and vessels being installed at the WTP require hydrotest discharge rates and volumes that will exceed Special Permit Condition S1.B.2 of the Permit. Special Permit Condition S.7.F of the Permit was written to address the discharges resulting from the specific hydrotesting and flushing of these new tanks and vessels being installed at the WTP that are greater than 50,000 gallons in volume. The hydrotesting will be utilized to test the integrity of the newly installed tanks and vessels and their components under specific pressure conditions. Discharges related to flushing include washing dirt and construction debris from the inside of the tanks and vessels.

The discharges allowed under Special Permit Condition S.7.F will be allowed on a case by case basis, if approved by Ecology. Ecology has no plans to allow these larger volumes of discharges after WTP operations commence.

Industrial Stormwater: Industrial stormwater is stormwater that is collected in an engineered structure or other impervious surface directly associated with an industrial activity and then discharged to an engineered structure. These terms are explained below.

- **Industrial stormwater.** The stormwater discharge must have the potential to come into contact with an industrial activity or is collected within an area of industrial activity (i.e., one directly related to manufacturing, processing, or raw materials storage at an industrial plant).
- **Collected in an engineered structure.** Industrial stormwater must be collected in an engineered structure such as a lined trench, basin, retention structure, secondary containment, tank, sump, roof, and other impervious surfaces directly associated with industrial activities.
- **Discharged to an engineered structure.** Industrial stormwater must be discharged to an engineered disposal structure such as an injection well, dry well, catch basin, infiltration basin, infiltration trench, lined trench, or retention basin.

Spills are not covered under this draft Permit. Spills are regulated under *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980* Part 40 Code of Federal Regulations (CFR) 302 and *Resource Conservation and Recovery Act (RCRA)* and the State of Washington Department of Ecology *Dangerous Waste Regulations* Section WAC 173-303-145.

5.0 SITE DESCRIPTION

The Hanford Site covers approximately 1,450 square kilometers (560 square miles) of semiarid land that is owned by the United States Government and managed by USDOE-RL and the United States Department of Energy, Office of River Protection (USDOE-ORP). The Hanford Site is located northwest of the City of Richland, Washington (Figure 1). The City of Richland adjoins the southeastern most portion of the Hanford Site boundary and is the nearest population center.

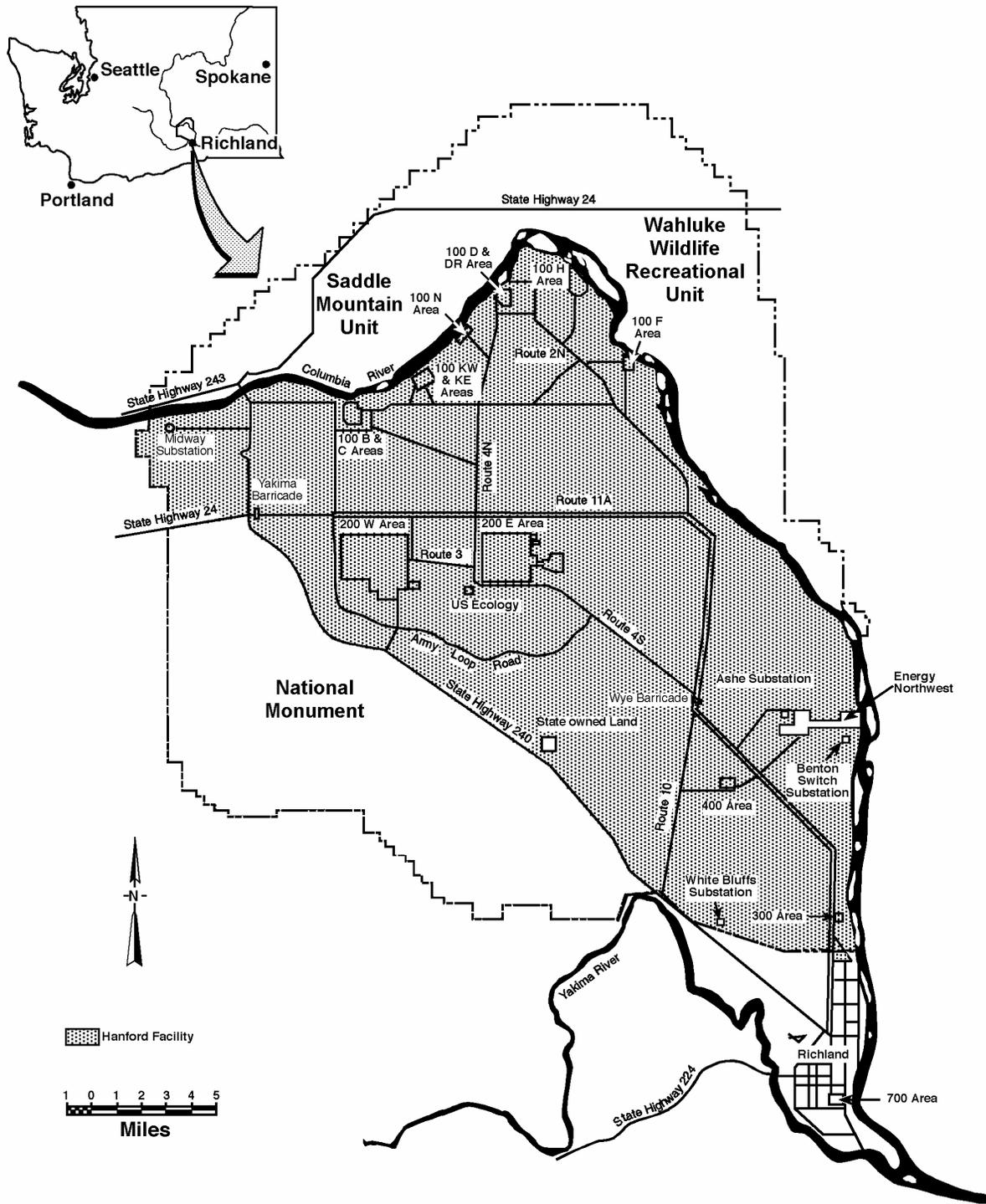
Activities on the Hanford Site are centralized in numerically designated areas. The 100 Areas, located along the Columbia River, contain deactivated reactors. The processing units are in the 200 Areas, which are on a plateau approximately 11 kilometers (7 miles) from the Columbia River. The 300 Area, located adjacent to and north of Richland, contains research and development laboratories. The 400 Area, 8 kilometers (5 miles) northwest of the 300 Area, contains the Fast Flux Test Facility previously used for testing liquid metal reactor systems. The 600 Area covers all locations not specifically given an area designation. Additional administrative offices are located in the 700 Area in downtown Richland.

The applicability of this draft Permit is limited to activities conducted by USDOE-RL and USDOE-ORP and on their behalf by their contractors on the Hanford Site in the areas designated in the previous paragraph. Activities conducted by others on lands covered by leases, use permits, easements, and other agreements whereby land is used by parties other than USDOE-RL is not included in this draft Permit. For example, the draft Permit does not cover activities on state owned or leased lands, lands owned by the Bonneville Power Administration, lands leased to Energy Northwest, US Ecology, and the Ashe Substation, or similarly leased lands not under the management of USDOE-RL. In addition, no waste stream discharges are planned for the Saddle Mountain and Wahluke Wildlife Recreational Units located north of the Columbia River, and the Fitzner/Eberhardt Arid Lands Ecology Reserve National Monument

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located west of Highway 240 and south of Highway 24; therefore, these areas are not included in this draft Permit.



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FIGURE 1. HANFORD SITE

6.0 PROPOSED CONDITIONS

The draft Permit and the conditions are meant to control the discharge of wastewater streams on the Hanford Site. Ecology's main concern is to prohibit practices that could result in further contamination of the groundwater and to avoid the movement and spread of existing Hanford Site contamination. These goals can be achieved through the implementation of standard industrial P2BMPs that are included as conditions in the draft Permit. These conditions include discharge limitations, source water limitations, pollution prevention, and best management practice requirements. Furthermore, the proposed conditions that appear in this draft Permit are basically the same conditions that appeared in the previous permits.

Discharge limitations included in the draft Permit include maximum flow limits for most discharges. Each individual hydrotest, maintenance, construction, cooling water, condensate, and miscellaneous discharge is limited to an annual average flow of 10 gallons per minute and an instantaneous maximum flow of 150 gallons per minute. In addition, the total discharge from all hydrotesting, construction, and maintenance discharges shall not exceed 2,000,000 gallons per day. Similarly, the total discharge from all cooling water, condensate, and miscellaneous discharges is limited to 100,000 gallons per day. These limits in the draft Permit are based on agreements with the Permittee on the scope of all of the categorical wastewater discharge streams. Discharges that need permits and that have flows that are larger than these limits are not appropriate for this categorical permit and need to get individual permits. The draft Permit does not require flow measurement for any of the wastewater discharge streams included in this draft Permit.

The draft Permit has discharge limitations on the contaminants in the discharges. Each discharge is required to meet Groundwater Quality Criteria (GWQC) or not exceed 110% of the contaminant levels of the designated source water(s) unless the discharge is expected to have a contaminant that exceeds the GWQC solely because the source water has a contaminant that exceeds one or more of the GWQC. Also, discharges that exceed the GWQC at the point of discharge but are prevented from impacting groundwater quality, are covered by this draft Permit. One exception to this condition is for industrial stormwater. Industrial stormwater must meet the GWQC at the point of discharge.

The draft Permit also contains limitations on the source water. The source waters include; raw water from the Columbia River, treated or potable water from the Columbia River, both raw groundwater, treated groundwater in the 400 Area, and demineralized water. The source waters are described in detail in the permit application (DOE/RL-2001-60, Rev. 0). The source waters meet WAC 173-200 GWQC, with a few exceptions. For raw Columbia River water aldrin and arsenic exceed the GWQC, and Benzo(A)pyrene, Bis(2-chloroethyl)ether, 3-3-dichlorobenzidine, 1,3-dichloropropene, 3-3-dimethylbenzidine, 2,4-dinitrotoluene, 2,6-dinitrotoluene, heptachlor epoxide, hexachlorobenzene, N-nitrosodiethylamine, N-nitrosodi-n-propylamine, N-nitrosopyrrolidine, N-nitrosodibutylamine, Polynuclear Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs), 0-toluidine, toxaphene, vinyl chloride, and iron exceed the GWQC. For potable Columbia River water, aldrin, arsenic, bis(2-ethylhexyl)phthalate, bromodichloromethane, and chloroform all exceed the GWQC. For potable water from the 400 Area groundwater, arsenic and bromodichloromethane exceed the GWQC. For 400 Area untreated groundwater, both arsenic and coliform exceed the GWQC.

If new contaminants or levels of previously identified contaminants are detected in the source water at or above the GWQC, Ecology must be notified. Ecology will use the new information to evaluate if the source water should still be used as source water, or if another action is needed.

The only source water for industrial stormwater is precipitation. By definition, this source water meets WAC 173-200 GWQC and therefore, only discharges that pick up contamination during the collection

and disposal of industrial stormwater have the potential to exceed GWQC. Consistent with this definition, all industrial stormwater discharges shall not exceed GWQC.

The draft Permit includes a requirement to implement P2BMPs. The draft Permit lists basic P2BMPs that all discharges must follow, where appropriate (Special Permit Condition S.4). These basic or minimum P2BMPs include prohibitions against the discharge of wastewater in surface contaminated areas or are near active or inactive contaminated disposal sites. The contamination could be from dangerous and/or radioactive contaminants from Hanford Site past practices. The 300 feet specified in Special Permit Condition S4.B are based on Hanford Site information on the distance required between discharges to prevent the interaction or intermingling of the discharges. These first two basic P2BMPs are meant to prevent wastewater discharges from moving existing contamination on the surface or within the soil column to greater depths. There are some existing streams that discharge within the 300 foot limit that have been determined to be acceptable for continued discharge. For example, stormwater in the 300 Area and some incidental small volume wastewaters generated during routine operations such as water skid maintenance and pump testing are considered acceptable within contaminated areas.

Special Permit Condition S.4.A.4 requires the Permittee to make every effort to prevent ponding of wastewater discharges. Special Permit Condition S.4.D restricts the Permittee from discharging wastewater to the surface waters of the state or to any land that is not owned or under the control of the Permittee unless authorized by a state or federal discharge permit. Special Permit Condition S.4.A.5 encourages the use of onsite wastewater treatment facilities (200 Area Effluent Treatment Facility and 300 Area Treated Effluent Disposal Facility) wherever possible.

The draft Permit includes in Special Permit Condition S.5 a requirement that the Permittee must continue to implement a P2BMP Plan. This plan, describes how discharges will be managed on the Hanford Site. All discharges are required to follow the P2BMPs listed in the plan. If appropriate P2BMPs are not included in the P2BMP plan for a particular wastewater discharge, that discharge is not covered by the draft Permit until the appropriate P2BMPs are added to the plan.

The Permittee has an approved P2BMP Plan (*Pollution Prevention and Best Management Practice Plan for State Waste Discharge Permits ST 4508, ST 4509, and ST 4510* (DOE/RL-97-67, Rev.3). It is appropriate to build on the elements from existing practices/activities that are applicable to the re-issued discharge Permit.

7.0 MONITORING AND REPORTING

There is no change to the monitoring and reporting requirements from the previously issued permits. The draft Permit requires monitoring and reporting for significant discharges. Significant discharges are defined in the draft Permit as hydrotest, maintenance or construction discharges over 14,500 gallons in a 24 hour period and/or discharges over 50,000 gallons total in a calendar year. These significant discharges will be recorded in a log. Information provided in the log will include: type of discharge, date of discharge, location, source water, total volume, and discharge rate, soil loading rate (discharge rate/area), additives, name of responsible person, and any other pertinent information. The log will be submitted to Ecology upon request. Smaller, less significant discharges will not be tracked because of the great number of discharges and the amount of effort this would take to track these discharges. These smaller discharges still are required to meet all P2BMPs required by the draft Permit.

No sampling and analysis of the source water or discharges are required by the draft Permit. For the most part, the discharges are small and short-term discharges. Sampling one discharge would tell little about the next discharge. Sampling all or most of the discharges would be prohibitively expensive. The Permit application provided data to show that the source waters mostly meet the GWQC. The processes included

in this Permit are not expected to add significant pollutants to the source water, as long as the proper P2BMPs are followed. The potential to pollute the environment is low if the proper practices are followed. It is the position of Ecology that resources that would be used for sampling these discharges are better used elsewhere on the Hanford Site.

The draft Permit does not require monitoring and reporting of non-contaminated industrial stormwater discharges. No sampling and analysis of stormwater or industrial stormwater discharges is required, as long as a reasonable potential for contamination does not exist. The collection and discharge of industrial stormwater is not expected to add significant pollutants to the stormwater, as long as the proper P2BMPs are followed.

The exception to not sampling is when industrial stormwater is collected in a structure that is known to contain pre-existing contamination from past practices (Special Permit Condition S.4.A.7). Contaminated structures on the Hanford Site are common. Contamination could be from dangerous and/or radioactive contaminants. The collection of industrial stormwater in these contaminated structures is to be avoided. If collection does occur, the collected industrial stormwater must be field screened or sampled and analyzed for the contaminants of concern for that structure. If the industrial stormwater analysis does not show the contaminants of concern at levels of concern, the industrial stormwater may be discharged under this draft Permit. If contamination is found, treatment of the industrial stormwater would be required before appropriate disposal. This treatment may mean sending the stormwater to the 200 Area Effluent Treatment Facility (ETF) or other treatment facility. Discharge would be done under the treatment facility's state waste discharge permit. Treatment and discharge may also be possible under this draft Permit if the Permittee can show, through sampling and analysis, that the industrial stormwater has been treated successfully.

8.0 GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to groundwater permits issued by Ecology. The general conditions in this draft Permit have some slight differences from the standardized set. One General Permit Condition that is part of the standardized set is entitled "*Penalties for Violating Permit Conditions*" did not fit this draft Permit and is replaced by General Permit Condition G.8, "Discharge Violations". Two other standard General Permit Conditions, "*Reporting a Cause for Modification*" and "*Plan Review Required*", also did not fit this draft Permit and are not included. Three other General Permit Conditions that are not part of the standardized set of General Permit Conditions, but are standard Special Permit Conditions, are included.

General Permit Condition G.1 requires responsible officials or their designated representatives to sign submittals to Ecology. General Permit Condition G.2 requires the Permittee to allow Ecology access to the treatment system, production facility, and records related to the Permit. General Permit Condition G.3 specifies conditions for modifying, suspending, or terminating the Permit. General Permit Condition G.4 prohibits the Permittee from using the Permit as a basis for violating any laws, statutes, or regulations. General Permit Conditions G.5 and G.6 refer to Permit renewal and transfer. General Permit Condition G.7 prohibits the discharge of removed substances. General Permit Conditions G.8 and G.9 relate to discharge violations and payment of permit fees. General Permit Conditions G.10, G.11, and G.12 relate to record keeping requirements, noncompliance notification, and permit exemptions.

A section on permit exemptions that was a part of P2BMP has been added to the draft Permit. Language for some exemptions has been clarified. Exemptions for small leaks from pumps and valves, eyewash stations, and safety showers have been added.

9.0 PERMIT STATUS

An application for renewal of the three categorical Permits (ST 4508, ST4509, and ST 4510) was submitted to Ecology in November 2001. The applicant was notified by Ecology on April 28, 2002, that the application was complete. The proposed draft Permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, and to protect human health and the beneficial uses of waters of Washington State. Ecology is proposing that this draft Permit be issued for five (5) years.

10.0 STATE ENVIRONMENTAL POLICY ACT (SEPA) COMPLIANCE

RCW 43.21C.0383 states, "The issuance, re-issuance, or modification of a waste discharge permit that contains conditions no less stringent than federal effluent limitations and state rules is not subject to the requirements of RCW 43.21C.030(2)(c). This exemption applies to existing discharges only and does not apply to new source discharges."

RCW 43.21C is the State Environmental Policy statute. RCW 43.21C.0383 is the application of RCW 43.21C.030(2)(c) to waste discharge permits.

Based on RCW43.21C.0383, all existing wastewater discharge streams are exempt from Washington State Environmental Policy Act (SEPA) review.

Additional discharges from WTP have been added to the Permit. A SEPA Checklist was completed for the Waste Treatment Plant Project in 2001, document 24590-WTP-RPT-ENV-01-011, State Environmental Policy Act Environmental Checklist for the River Protection Project - Waste Treatment Plant. No special SEPA compliance issues were identified.

11.0 RECOMMENDATION FOR PERMIT ISSUANCE

This proposed Permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control contaminants, and to protect human health and the beneficial uses of waters of the state of Washington. Ecology proposes that the Permit be issued for five (5) years.

12.0 PERMIT MODIFICATIONS

This Permit can be modified in whole or in part by Ecology for such reasons as violations by the Permittee, obtaining the Permit by misrepresentation or failure to disclose, material change in type of waste disposal, material change in the condition of the waters of the state, promulgation or revisions of regulatory standards, or errors in best professional judgment on the part of the permit writer due to data limitations in existence at the time of Permit development. The Permittee also can request permit modifications which Ecology can accept, accept with modifications, or deny.

APPENDIX A

REFERENCES

- Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams*, U.S. Department of Energy, Richland, Washington, DOE/RL-93-94, Revision 1.
- Pollution Prevention and Best Management Practice Plan for State Waste Discharge Permits ST 4508 and ST 4509*, U.S. Department of Energy, Richland, Washington, DOE/RL-97-67, Revision 3.
- Water Quality Standards for Groundwaters of the State of Washington*, Chapter 173-200 WAC, issued 10/31/90.
- State Waste Discharge Permit Program*, Chapter 173-216 WAC, issued 9/22/93.
- Underground Injection Control Program*, Chapter 173-218 WAC, issued 2/29/84.
- Washington State Law, RCW 90.48.
- Consent Order No. DE-91 NM-177 for the Permitting of Liquid Effluents Discharges Under the Washington Administrative Code (WAC) 173-216, December 23, 1991.
- State Waste Discharge Permit, Permit Number ST 4508*, Washington State Department of Ecology, issued May 1997.
- State Waste Discharge Permit Number ST 4509*, Washington State Department of Ecology, issued May 1998.
- State Waste Discharge Permit Number ST 4510*, Washington State Department of Ecology, issued April 1999.
- Documentation for Renewal of State Waste Discharge Permits ST 4508, ST 4509, and ST 4510*, US Department of Energy-Richland Operations, Richland Washington, (DOE/RL2001-60, Rev.0), November 2001.
- Hanford Federal Facility Agreement and Consent Order*, Washington State Department of Ecology, U. S. Environmental Protection Agency, U. S. Department of Energy, Richland Operations Office, Olympia Washington, amended periodically

APPENDIX B

PUBLIC INVOLVEMENT INFORMATION

Ecology has tentatively determined to renew the Permit listed on page one of this Fact Sheet. The draft Permit contains conditions and limitations which are described in the rest of the Fact Sheet.

Previous public notices of application for the following three permits (that are combined for this Permit) were published in the Tri-City Herald, to inform the public that an application had been submitted and to invite comment on the issuance of the Permit. ST 4508 dates were March 16 and 17 1997, ST 4509 dates were December 23 and 30, 1997, and ST 4510 dates were November 15 and 22, 1998.

Ecology did not publish a public notice of draft permit for this renewal permit, a combination of ST 4508, 4509, and 4510 because there are no increases in volume or changes in characteristics of the Categorical State Waste Discharge beyond those previously authorized in 1997 and 1998. This Permit was written by Kathy Conaway. Inquiries, requests for information and meetings, and written comments should be directed to:

Ms. Kathy Conaway
Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354
(509) 372-7890 or Hanford Hotline 1-800-321-2008

Ecology will consider comments received in formulating a final determination to issue, revise, or deny the permit. Ecology's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information can be obtained from Ecology by contacting Kathy Conaway at (509) 372-7890 or by writing to her at the above address or at kcon461@ecy.wa.gov.

APPENDIX C

GLOSSARY OF TERMS

Activity: Any site, area, facility, structure, vehicle, installation, or discharge which may produce pollution.

Construction Activity: Clearing, grading, excavation, and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Cooling Water and Condensate Discharge: Cooling water discharges are generated from heat generating systems that use water to cool parts of the equipment.

Condensate Discharges: Condensate discharges from heating, ventilation, and air conditioning systems, air compressors, and ice machines that discharge to an engineered structure.

Criteria: Are the numeric values and the narrative standards that represent contaminant concentrations which are not to be exceeded in the receiving environmental media (surface water, groundwater, sediment) to protect beneficial uses.

Fact Sheet: A document prepared and issued with every permit which summarizes the activities and decisions on the permit and tells how the public may comment.

Groundwater Quality Criteria (GWOC): Refers, for this Permit, to Water Quality Standards for Groundwater as listed in Table I of Chapter 173-200 WAC.

Industrial Activity: A manufacturing process that results in the conversion of a natural resource into goods and services. On the Hanford Site, this is limited to those facilities that were directly related to the processing and conversion of defense related material.

Industrial Wastewater: Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Owner and Operator: For this Permit and Fact Sheet, both the owner and the operator refer to the U.S. Department of Energy.

Parties of Record: People who have indicated an interest in a particular permit during the public notice of application and are kept informed of progress of the permit.

Pollutant: Dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollution Prevention and Best Management Practices (P2BMPs): Pollution Prevention (P2) - Source reduction; or protection of natural resources by conservation; or increased efficiency in the use of raw materials, energy, water or other resources. Best Management Practices (BMPs) - Administrative actions

Fact Sheet

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taken to prevent the discharge of pollutants. Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

Runoff: Water originating from rainfall and other precipitation that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes, and wetlands as well as groundwater.

Source Reduction: Any practice which: eliminates or reduces the amount or use of hazardous substances, pollutants, or contaminants that enter a waste stream or are released into the environment, including fugitive emissions, prior to any recycling, treatment, or disposal; and thereby, reduces adverse public health and environmental effects associated with the release of such substances, pollutants, or contaminants.

Spill: A spill is defined in this permit and Fact Sheet as an accidental or unintentional release of a contained substance.

State Waste Discharge Permit: A wastewater discharge permit issued under state authority (Chapter 90.48 RCW) to control the discharge of pollutants to waters of the state. Generally, issued for discharges to groundwater and for industrial discharges to a municipal sewage system when that municipal system does not have a pretreatment program.

State Waters: Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater: That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Upset: An upset means an exceptional incident in which a discharge exceeds the limitations of this Permit resulting from factors beyond the reasonable control of the Permittee.

APPENDIX D

RESPONSE TO COMMENTS