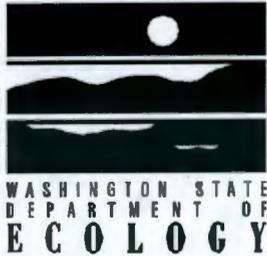


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Permit No. ST 4509

Issuance Date: Month 1, 1998  
Effective Date: Month 1, 1998  
Expiration Date: Month 1, 2003

DRAFT  
STATE WASTE DISCHARGE PERMIT NUMBER ST 4509

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
KENNEWICK, WA 99336-6018

In compliance with the provisions of the  
State of Washington Water Pollution Control Law  
Chapter 90.48 Revised Code of Washington, as amended  
and the Federal Water Pollution Control Act  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 et seq.,  
authorizes



U.S. Department of Energy  
Richland Operations Office  
P.O. Box 550  
Richland, WA 99352

to discharge wastewater in accordance with the special and general conditions which follow.

Facility Location:

Cooling Water and Condensate  
discharge locations on the  
Hanford Site, Richland, Washington

Discharge Location:

Hanford Site, Richland, Washington  
(Only areas controlled by and discharges  
of the U.S. Department of Energy)

SIC Code: 9999

Michael A. Wilson  
Program Manager  
Nuclear Waste Program  
Washington State Department of Ecology

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**SUMMARY OF SCHEDULED PERMIT REPORT SUBMITTALS**

Refer to the Special and General Conditions of this permit for additional submittal information and requirements.

| <b>Permit Section</b> | <b>Submittal</b>   | <b>Frequency</b>                    | <b>First Submittal Date</b>   |
|-----------------------|--|-------------------------------------|---|
| S5.A.                 | Draft Pollution Prevention and Best Management Practices Plan        | 1/permit cycle                      | 180 days after effective date of permit (Month XX, 1998)  |
| S5.A.                 | Final Pollution Prevention and Best Management Practices Plan        | 1/permit cycle                      | 90 days after receiving Ecology comments on the draft Plan  |
| S5.C.                 | Revisions to Pollution Prevention and Best Management Practices Plan | Upon Ecology request or voluntarily | Within 90 days of receiving a written request from Ecology or 30 days prior to desired implementation |
| G5.                   | Application for permit renewal                                       | 1/permit cycle                      | At least 180 days before permit expiration (Month XX, 2003)   |
| G11.                  | Noncompliance notification written report                            | As needed                           | Within 30 days (or sooner if requested by Ecology) upon discovery of noncompliance                    |

## SPECIAL CONDITIONS

### S1. PERMIT COVERAGE

#### A. Types of Activities Covered

This categorical state waste discharge permit is designed to cover the wastewater discharges from the following activities of the U.S. Department of Energy-Richland Operations Office (Permittee) on the Hanford Site:

1. Cooling Water discharges, which include activities related to cooling parts of heat generating systems. Systems using cooling water include air compressors, diesel engines, air conditioning, ventilation, evaporative cooling, and ice machines.
2. Condensate discharges, which include discharges from systems such as steam lines, steam heating systems, air compressors, air conditioning, ventilation, and ice machines.
3. Other miscellaneous discharges, which include discharges from pump leaks, valve wastewater, water tank overflows, and quench tanks.

#### B. Conditions on Activities Covered

To be covered by this permit, each cooling water and condensate discharge must meet the following conditions, unless specifically authorized otherwise in writing by Ecology:

1. Each discharge must be less than 10 gallons per minute averaged annually. Annual average flow is calculated for each discharge as total gallons discharged in a calendar year, divided by the number of minutes in that year.
2. Each discharge must be less than 150 gallons per minute instantaneously.
3. Each discharge must meet WAC 173-200 Ground Water Quality Criteria (GWQC) 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, this permit would cover discharges that exceed the GWQC at the effluent, but are prevented from impacting ground water quality.

## S2. DISCHARGE LIMITATIONS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to discharge to ground via infiltration, wastewater from cooling water and condensate operations (as described in condition S1.A) on the Hanford Site, subject to the following limitations:

- A. The flow total of all discharges covered by this permit shall not exceed the maximum daily flow of 100,000 gallons.
- B. All discharges shall follow appropriate pollution prevention and Best Management Practices (BMPs) that are described in this permit or in required permit submittals. BMPs in required permit submittals are not required to be followed until the submittal is approved by Ecology. No sampling and analysis of the discharges is required as long as the proper pollution prevention and BMPs are followed.
- C. Contaminants in all discharges shall be below either the GWQC levels or shall be below 110% of the contaminant levels in the designated source water, unless discharge BMPs prevent impacts to ground water quality. Compliance with BMPs for a discharge is considered appropriate demonstration of compliance of this condition. Compliance with this condition may also be confirmed during compliance inspections by the use of sampling and analysis.

## S3. SOURCE WATER LIMITATIONS

The only allowed source waters to be used by cooling water and condensate discharge activities are raw Columbia River water, raw groundwater, potable water (treated Columbia River water or groundwater) or condensed water vapor from ambient air. The State Waste Discharge Permit Application for Cooling Water and Condensate Discharges (DOE/RL-96-41, Rev. 0) describes the quality of these source waters and lists potential contaminants contained in each source water. No sampling and analysis of the source water is required by this permit, however routine and effective operation of the potable water plants require monitoring of the source waters. If new contaminants or levels of previously identified

contaminants are detected at or above the GWQC, or if the level of a contaminant increases by more than 10% for any contaminant in a source water, then the Permittee shall notify Ecology, and Ecology will evaluate if the water should still be used as source water.

#### S4. POLLUTION PREVENTION AND BMPs FOR ALL DISCHARGES

All cooling water and condensate discharges covered by this permit shall implement the following minimum BMPs where appropriate:

- A. No discharge shall be allowed within a surface contaminated area (areas with dangerous waste and/or radioactive contaminates).
- B. No discharge shall be allowed within 300 feet horizontal radius of a known active or inactive crib, ditch, or trench used for disposal of dangerous and/or radioactive contaminants.
- C. No discharge shall be allowed to affect an ecologically sensitive area.
- D. Reasonable efforts shall be taken to prevent ponding due to discharge flow rates above the expected soil infiltration capacity.
- E. There shall be no discharges or runoff of wastewater to any surface waters of the state or to any land not owned by or under control of the Permittee.
- F. If the discharge meets the conditions of State Waste Discharge Permit ST 4502 for the 200 Area Treated Effluent Disposal Facility (TEDF), and the discharge is near a connection to the TEDF collection system, then all reasonable attempts should be made to discharge to the TEDF. Discharge to other permitted wastewater treatment facilities, such as the 300 Area TEDF, is also acceptable, if such a discharge is allowed under the other treatment facilities discharge permit.
- G. Efforts should be made to recycle, store, and reuse all water.

#### S5. POLLUTION PREVENTION AND BMPs PLAN REQUIREMENTS

##### A. Plan Elements

The Permittee shall develop and implement a pollution prevention and BMPs plan for all discharges covered by this permit. This plan shall provide guidance on appropriate

handling of cooling water and condensate discharges on the Hanford Site and the plan shall incorporate all the terms and conditions of this permit. The plan should be usable as a training document for all employees responsible for cooling water and condensate discharges. Recommendations and guidance for this plan may be taken from appropriate Ecology publications, industrial association publications (e.g., guidance from the Associated General Contractors of Washington), or other sources, with additional Hanford Site specific details added. For discharges where the effluent is expected to exceed the GWQC or 110% of the contaminant level in the source water, the plan must specify how impacts to ground water quality will be prevented. The plan should describe how the environment is considered and protected when new or replacement chemical additives are added to a process's source water. Separate plans for each category covered by this permit (cooling water and condensate discharges) would also be acceptable.

Each individual discharge covered by this permit should be able to point to a specific section of the plan for the appropriate pollution prevention and BMPs for the particular discharge. If an individual discharge cannot point to a specific section of the plan for the appropriate pollution prevention and BMPs, then such a discharge is not covered by this permit until an appropriate section is added to the plan.

A draft of this plan is due to Ecology within 180 days after the effective date of this permit. The final plan will be due to Ecology 90 days after receiving Ecology written comments on the draft plan.

#### B. Plan Compliance

Upon completion and implementation of a pollution prevention and BMPs plan, any activity covered by this categorical permit must, at all times, comply with the terms and conditions of the pollution prevention and BMPs plan. The discharge of any wastewater not done as specified in the pollution prevention and BMPs plan shall constitute a violation of the terms and conditions of this permit. Every discharge shall have an assigned responsible person on Site who is familiar with the section of the pollution prevention and BMPs plan that applies to the discharge. This responsible person should confirm compliance with the plan and be prepared to answer any Ecology questions in the event of an inspection.

#### C. Plan Revisions

If Ecology determines the need for revisions to the pollution prevention and BMPs plan, Ecology will send a written request for a revision to the Permittee. The Permittee must then complete the requested revision to the plan and submit it to Ecology for approval

within 60 days of receiving the request for revision. The revision will become effective upon Ecology approval, or not more than 90 days after the revision is requested by Ecology. If Ecology rejects the Permittee version of the revision, then Ecology's version will become effective not more than 90 days after the original written request.

If the Permittee determines the need for revisions to the pollution prevention and BMPs plan (such as adding a discharge type or process not previously covered by the plan), the Permittee must send a written request to Ecology at least 30 days prior to the desired implementation date of the revision. Ecology may approve, approve with modification, or disapprove the desired revision. If Ecology does not act within 30 days of receiving the request for revision, the revision will become effective as written by the Permittee in the written request.

## GENERAL CONDITIONS

### G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to Ecology shall be signed as follows:

- A. All permit applications shall be signed by either a principal executive officer or ranking elected official.
- B. All reports required by this permit and other information requested by Ecology shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 1. The authorization is made in writing by the person described above and is submitted to Ecology at the time of authorization, and
  - 2. The authorization specifies either a named individual or any individual occupying a named position.
- C. Changes to authorization. If an authorization under paragraph B.2. above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and/or imprisonment for knowing violations."

**G2. RIGHT OF ENTRY**

Representatives of Ecology shall have the right to enter at all reasonable times in or upon any property, public or private, for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the state. Reasonable times shall include normal business hours; hours during which production, treatment, or discharge occurs; or times when Ecology suspects a violation requiring immediate inspection. Representatives of Ecology shall be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

**G3. PERMIT ACTIONS**

This permit shall be subject to modification, suspension, or termination, in whole or in part by Ecology for any of the following causes:

- A. Violation of any permit term or condition;
- B. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;
- C. A material change in quantity or type of waste disposal;
- D. A material change in the condition of the waters of the state; or
- E. Nonpayment of fees assessed pursuant to RCW 90.48.465.

Ecology may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

**G4. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in the permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

**G5. DUTY TO REAPPLY**

The Permittee must reapply, for permit renewal, at least 180 days prior to the specified expiration date of this permit.

**G6. PERMIT TRANSFER**

This permit is automatically transferred to a new owner or operator if:

- A. A written agreement between the old and new owner or operator containing a specific date for transfer of the permit responsibility, coverage, and liability is submitted to Ecology; and
- B. Ecology does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to section A. above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by Ecology.

**G7. REMOVED SUBSTANCES**

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall not be resuspended or reintroduced to the effluent stream for discharge.

**G8. DISCHARGE VIOLATIONS**

The Permittee shall at all times be responsible for continuous compliance with the terms and conditions of this permit. Failure to comply with the terms and conditions of this permit constitutes a violation of RCW 90.48.144. Such violations may result in orders, directives or penalties being issued by Ecology.

**G9. PAYMENT OF FEES**

The Permittee shall submit payment of fees associated with this permit as assessed by Ecology. Ecology may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

#### G10. RECORD KEEPING REQUIREMENTS

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director of Ecology.

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place, and time of sampling; (2) the dates the analyses were performed; (3) who performed the analyses; (4) the analytical techniques or methods used; (5) the results of the analyses reported to the Method Detection Limit; and (6) the name of the individual who performed the sampling or provided the measurement.

#### G11. NONCOMPLIANCE NOTIFICATION

In the event the Permittee, upon discovery of the circumstances, is unable to comply with any of the permit terms and conditions due to any cause, the Permittee shall:

- A. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the violation, and correct the problem;
- B. Immediately notify Ecology's designated water quality permit coordinator, Kennewick Office at (509) 735-7581 of the failure to comply; and
- C. Submit a detailed written report to Ecology within 30 days, unless requested earlier by Ecology, describing the nature of the violation, corrective action taken and/or planned, planned steps to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

If the Permittee is in compliance with the terms and conditions of this permit, but its activities have been shown to violate the groundwater protection provisions of WAC 173-200, Ecology is electing to precede any civil or criminal penalty with a compliance order or permit modification per the provisions of WAC 173-200-100(5).