

Issuance Date:
Effective Date:
Expiration Date:

State Waste Discharge Permit Number ST0004502

State of Washington
DEPARTMENT OF ECOLOGY
Olympia, Washington 98504-7600

Nuclear Waste Program
3100 Port of Benton Blvd.
Richland, Washington 99352

In compliance with the provisions of the
State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington, as amended,

United States Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

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

Facility Location: 200 East Area and 200 West Area	Discharge Location: 200 Area Treated Effluent Disposal Facility (TEDF), consisting of two adjacent five acre infiltration/disposal basins. Legal Description : S5, T12N, R27E
Treatment Type: System collects, conveys, and disposes of treated effluent from various facilities in the 200 Areas of the Hanford Site. Industry Type: Clean-up Site	SIC Code: 4959 NAICS Code: 562910

Jane Hedges, Program Manager
Nuclear Waste Program
Washington State Department of Ecology

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The 200 Area Treated Effluent Disposal Facility (TEDF) provides a collection, conveyance, and disposal system for treated effluent from the Waste Treatment Plant and buildings in the 200 East and West Areas of the Hanford Site. It is located in the 200 East and West Areas and consists of an 11-mile-long pipeline, three lift stations, a sample station (Building 6653), and two adjacent five-acre infiltration ponds. All of the water is generated from facility activities that do not have direct contact with industrial processes. The permit provides the terms and conditions that regulate the discharge of treated wastewater, via infiltration through soils, into groundwater of the state.

This permit authorizes the following discharges to the 200 Area TEDF:

Facility	Uses Generating Effluent
Plutonium Finishing Plant	Ventilation heating/cooling, steam condensate, cooling water, compressed air production, process water, rainwater, potable water overflow, and miscellaneous water from deactivation, dismantling, and maintenance activities.
222-S Laboratory Complex	Steam condensate, potable water, and rainwater
T Plant	Steam condensate, cooling water, heating coil water, and floor drains
242-A Evaporator	Cooling water and steam condensate
242-A-81 Water Services Building	Untreated Columbia river water, and strainer backwash
Waste Encapsulation Storage Facility (WESF)	Cooling water, rainwater, raw water, and potable water
Package boilers (242-A Annex, 283E, and 283W)	Boiler blowdown, steam condensate, cooling water, and water softener regenerate flows
241-A Tank Farm Cooling Water	Cooling Water
Miscellaneous waste streams permitted by ST-4511	Miscellaneous waste streams (hydrotest, maintenance, construction, and cooling water, industrial stormwater, etc.)
Waste Treatment Plant	Cooling water, steam condensate, boiler blowdown, reverse osmosis brine, non-dangerous, non-radioactive water

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Summary of Permit Report Submittals

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

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report	Quarterly	30 days after completion of monitoring period
S3.E	Permit Violation Reports	As necessary	Within 5 days upon discovery of a noncompliance, or such other time as may be agreed to by Ecology
S4.A	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	6/30/2012
S4.B	Bypasses Reports	As necessary	
S6	Application for Permit renewal	1/permit cycle	01/01/2016
S8	Non-Routine Discharge Report	As necessary	
S9	Sampling and Analysis Plan (SAP) and Statistical Evaluation Plan for Effluent Variability Study	Once per Significant New Source	March 1, 2012
S9	Effluent Variability Study Results	Quarterly	30 days after completion of monitoring period
S9	Effluent Variability Study Results Report	Once per Significant New Source	Within one year of completing sampling conducted under the SAP and Statistical Evaluation Plan for Effluent Variability Study
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G8	Payment of Fees	As assessed	
G10	Duty to Provide Information	As necessary	

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Special Conditions

S1. Discharge limits

S1.A. Effluent limits

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit violates the terms and conditions of this permit. Wastewater flows must not exceed the Design Criteria specified in Section S7.

Beginning on 01/01/2012 and lasting through 01/01/2017, the Permittee is authorized to discharge process wastewater to infiltration ponds at the permitted location subject to the following limits:

Effluent Limits: Sample Station # 6653		
Parameter	Average Monthly ^a	Maximum Daily ^b
Flow ^c	5.5 million gallons/day (MGD)	
Bis (2-ethylhexyl) phthalate	10 µg/l	---
Total Trihalomethane	20 µg/l	---
Carbon Tetrachloride	5 µg/l	---
Chloroform	7 µg/l	---
Methylene Chloride	5 µg/l	---
Arsenic (total)	15 µg/l	---
Cadmium (total)	5 µg/l	---
Chromium (total)	20 µg/l	---
Iron (total)	300 µg/l	---
Manganese (total)	50 µg/l	---
Mercury (total)	2 µg/l	---
Lead	10 µg/l	---
Chloride	58 mg/l	116 mg/l
Nitrate (as N)	0.62 mg/l	1.24 mg/l

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Effluent Limits: Sample Station # 6653		
Total Dissolved Solids	500 mg/l	---
a	Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured.	
b	Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day. This does not apply to pH.	
c	Ecology uses the flow data submitted in the approved engineering report and as included in the Facility Loading Condition (S7) to set permit fees. (WAC 173-224-040(2)(h)).	

S2. Monitoring requirements

S2.A. Process wastewater monitoring

The Permittee must monitor the process wastewater when discharging to the infiltration basins. Samples are collected from Sample Station 6653.

The Permittee must monitor the wastewater according to the following schedule. The Permittee must use the specified analytical methods unless the method used produces measurable results in the sample and EPA has listed it as a Part 136 EPA-approved method or the method is accredited by the Department of Ecology. If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

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Parameter	Units	Laboratory Method	Quantitation Level (QL)	Sampling Frequency	Sample Type
Final Wastewater Effluent					
Flow	Million Gallons per day (MGD)	Calibrated Devices	N/A	Continuous ^a	Continuous
Bis (2-ethyhexyl) phthalate	Micrograms per liter (µg/l)	SW-846 8270 or 625	5.0 µg/l	Quarterly ^d	Grab ^b
Total Trihalomethanes	µg/l	SW-846 8260	10 µg/l	Quarterly	Grab
Carbon Tetrachloride	µg/l	SW-846 8260,	5.0 µg/l	Quarterly	Grab
Chloroform	µg/l	SW-846 8260	5.0 µg/l	Quarterly	Grab
Methylene Chloride	µg/l	SW-846 8260	5 µg/l	Quarterly	Grab
Oil & Grease	mg/l (milligrams per liter)	EPA 1664	5 mg/l	Quarterly	Grab
Tritium	Picocuries per liter (pCi/l)	LA 218-413	N/A	Quarterly	Grab
Gross Alpha	pCi/l	LA 548-401	N/A	Monthly	Grab
Gross Beta	pCi/l	LA 548-401	N/A	Monthly	Grab
Arsenic (total)	µg/l	EPA 200.8	2.0 µg/l	Monthly	24-Hour Composite ^c
Cadmium (total)	µg/l	EPA 200.8	0.5 µg/l	Monthly	24-Hour Composite
Chromium (total)	µg/l	EPA 200.8	1.0 µg/l	Monthly	24-Hour Composite
Iron (total)	µg/l	SW-846 8260	100 µg/l	Monthly	24-Hour Composite
Lead (total)	µg/l	EPA 200.8	0.5 µg/l	Monthly	24-Hour Composite
Manganese (total)	µg/l	EPA 200.8	1.0 µg/l	Monthly	24-Hour Composite
Mercury (total)	µg/l	EPA 200.8	1.0 µg/l	Monthly	24-Hour Composite
Chloride	mg/l	EPA 300.0	1 mg/l	Monthly	24-Hour Composite
Nitrate (as N)	mg/l	EPA 300.0	0.1 mg/l	Monthly	24-Hour Composite
Sulfate	mg/l	EPA- 300.0	.50 mg/l	Monthly	24-Hour Composite

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Parameter	Units	Laboratory Method	Quantitation Level (QL)	Sampling Frequency	Sample Type
Total Dissolved Solids	mg/l	SM-2540C (EPA-600 160.1)	10 mg/l	Monthly	24-Hour Composite
pH	Standard Units	SM4500-H ⁺ B	N/A	Continuous	Continuous ^e
Conductivity	µmhos/cm	SM 2510B (EPA 120.1)	N/A	Continuous	Continuous
a		Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. Samples must be taken daily when continuous monitoring is not possible.			
b		Grab means an individual sample collected over a fifteen (15) minute, or less, period.			
c		24 Hour Composite means a 24-hour flow proportional composite. If the pump will not operate continuously for 24 hours due to low flow at the discharge, then a grab sample may be used in place of a composite sample for all parameters that normally require a composite.			
d		Quarterly sampling periods are January through March, April through June, July through September, and October through December.			
e		The Permittee must report the instantaneous maximum and minimum pH daily. Do not average pH values.			
<p>Report single analytical values below detection as "< (detection level)".</p> <p>Report single analytical values between the detection and quantitation levels with qualifier code of j following the value.</p> <p>To calculate the average value (monthly average):</p> <ul style="list-style-type: none"> • Use the reported numeric value for all parameters measured between the detection value and the quantitation value. • For values reported below detection, use one-half the detection value if the lab detected the parameter in another sample for the reporting period. • For values reported below detection, use zero if the lab did not detect the parameter in another sample for the reporting period. 					

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S2.C. Effluent Variability Study Monitoring

The Permittee will monitor the effluent variability new source discharges as identified in Special Condition S.9 and according to the following schedule. The Permittee must use the specified analytical methods unless the method used produces measurable results in the sample and EPA has listed it as a Part 136 EPA-approved method or the method is accredited by the Department of Ecology. If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

Parameter	Units	Laboratory Method	Quantitation Level (QL)	Sampling Frequency	Sample Type
Oil and Grease	mg/l	EPA 1664	5.0 mg/l	5/month	Grab
Total Trihalomethanes	µg/l	SW-846 8260	10 µg/l	5/month	Grab
Carbon Tetrachloride	µg/l	SW-846 8260	5.0 µg/l	5/month	Grab
Chloroform	µg/l	SW-846 8260	5.0 µg/l	5/month	Grab
Methylene Chloride	µg/l	SW-846 8260	5 µg/l	5/month	Grab
Bis (2-ethylhexyl) phthalate	µg/l	SW-846-8270 or 625	5.0 µg/l	Weekly	Grab
Total Dissolved Solids	mg/l	SM-2540C (EPA-600 160.1)	10 mg/l	Weekly	Composite ^a
Chloride	mg/l	EPA 300.0	1.0 mg/l	Weekly	Composite ^a
Sulfate	mg/l	EPA 300.0	.500 mg/l	Weekly	Composite ^a
Nitrate (as N)	mg/l	EPA 300.0	.10 mg/l	Weekly	Composite ^a
Arsenic (total)	µg/l	EPA 200.8	2.0 µg/l	Weekly	Composite ^a
Cadmium (total)	µg/l	EPA200.8	0.5 µg/l	Weekly	Composite ^a

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Parameter	Units	Laboratory Method	Quantitation Level (QL)	Sampling Frequency	Sample Type
Chromium (total)	µg/l	EPA200.8	1.0 µg/l	Weekly	Composite ^a
Iron (total)	µg/l	SW-846 8260	100 µg/l	Weekly	Composite ^a
Lead (total)	µg/l	EPA 200.8	0.5 µg/l	Weekly	Composite ^a
Manganese (total)	µg/l	EPA 200.8	1.0 µg/l	Weekly	Composite ^a
Mercury (total)	µg/l	EPA 200.8	1.0 µg/l	Weekly	Composite ^a
pH	Standard Units	SW-846 9040/EPA 150.1 or SM4500-H ⁺ B	N/A	Continuous	Continuous
Conductivity	µmhos/cm	SW-846 9050/EPA 120.1	N/A	Continuous	Continuous
Flow	million gallons per day (MGD)	N/A	N/A	Continuous	Continuous
a	If the collection of flow-composited samples is not possible, grab samples may be substituted for composite samples.				
Grab Sample Type means a sample collected in less than 15 minutes.					
Composite Sample Type means a 24-hour flow proportional composite. If the pump will not operate continuously for 24 hours due to low flow at the discharge, then a grab sample may be used in place of a composite sample for all parameters that normally require a composite.					
Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. Samples must be taken daily when continuous monitoring is not possible.					
5/month Frequency means 5 grab samples shall be collected during each calendar month.					
Weekly Frequency means once per calendar week.					

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S2.D. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit must conform to the latest revision of the following rules and documents unless otherwise specified in this permit or approved in writing by the Department of Ecology (Ecology).

- Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136
- Standard Methods for the Examination of Water and Wastewater (APHA).

S2.E. Flow measurement, field measurement and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices. Continuous monitoring devices include Flow Meter FE-68C-003, Flow Transmitter FT-68C-003, pH Meter AE-68C-012, pH Transmitter AIT-68C-012, Conductivity Meter AE-68C-011, and Conductivity Transmitter AIT-68C-011.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer's recommendation for that type of device.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records.
4. The Permittee:
 - a. Must calibrate continuous pH measurement instruments using a grab sample with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.
5. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates unless the reagent is requalified.
6. Calibrate these devices at the frequency recommended by the manufacturer.
7. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
8. Maintain calibration records for at least three years.

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S2.F. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, conductivity, pH, and internal process control parameters are exempt from this requirement.

S2.G. Request for reduction in monitoring

The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring. Ecology will review each request and at its discretion grant the request when it reissues the permit or by a permit modification.

The Permittee must:

1. Provide a written request.
2. Clearly state the parameters for which it is requesting reduced monitoring.
3. Clearly state the justification for the reduction.

S3. Reporting and recordkeeping requirements

The Permittee must monitor and report in accordance with the following conditions. The falsification of information submitted to Ecology constitutes a violation of the terms and conditions of this permit.

S3.A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on a Discharge Monitoring Report (DMR) form provided, or otherwise approved, by Ecology. Include a summary listing daily results for the parameters tabulated in Special Condition S2, including MDLs and QLs (when applicable). If submitting DMRs electronically, report a value for each day sampling occurred and for the summary values (when applicable) included on the form.
2. Submit the form as required with the words "no discharge" entered in place of the monitoring results, if the facility did not discharge during a given monitoring period. If submitting DMRs electronically, you must enter "no discharge" for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate.
3. Report the test method, DL, and QL on the discharge monitoring report or in the required report, if the Permittee used an alternative method not specified in the permit.
4. Include the following information (for priority pollutant organic and metal parameters lab reports): sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), laboratory practical quantitation limits (PQL), reporting units, and concentration detected. The Permittee must submit a copy of the contract laboratory report to provide this information. Analytical results from samples sent to a contract laboratory must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter. If the Permittee submits

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electronic DMRs, then it must attach an electronic file of the lab report to the electronic DMR.

5. Ensure that DMR forms are postmarked or received by Ecology no later than the dates specified below, unless otherwise specified in this permit. If submitting DMRs electronically, submit the DMR no later than the dates specified below, unless otherwise specified in this permit.
6. Submit DMRs for parameters with the monitoring frequencies specified in S2 (daily, monthly, quarterly, annually, etc.) at the reporting schedule identified below. The Permittee must:
 - a. Submit **DMRs**, unless otherwise specified in the permit, within 30 days of the completed monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December.
7. Submit reports to Ecology online using Ecology's electronic DMR submittal forms or send reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

S3.B. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings and electronic data 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. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

The Permittee must retain all records pertaining to the monitoring of sludge for a minimum of five (5) years.

S3.C. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement
2. The individual who performed the sampling or measurement
3. The dates the analyses were performed
4. The individual who performed the analyses
5. The analytical techniques or methods used
6. The results of all analyses

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S3.D. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR.

S3.E. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at 509-372-7950, within twenty four (24) hours from the time the Permittee becomes aware of any of the following circumstances. The Permittee must report:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S4.B., "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.
6. Any leak or failure of the wastewater transmission pipeline distribution system.
7. When a monitoring well exceeds an enforcement limit for the same parameter in two consecutive sampling events.

b. Report within five days

The Permittee must also provide a written submission within five (5) days of the time that the Permittee becomes aware of any event it must report under subpart a, above. The written submission must contain:

1. A description of the noncompliance and its cause.

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2. Maps, drawings, aerial photographs, or pictures to show the location and cause(s) of the non-compliance.
3. The period of noncompliance, including exact dates and times.
4. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
5. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
6. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

c. Waiver of written reports

Ecology may waive the written report required in subpart b, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

d. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within twenty four (24) hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. 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.

e. Report submittal

The Permittee must submit reports to the address listed in S3A.

S3.F. Other reporting

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280. Further instructions can be obtained at the following website: <http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm> .

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.G. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Operation and maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and

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appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

S4.A. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Review the O&M Manual at least annually and confirm this review by letter to Ecology by June 30 of each year.
2. Submit to Ecology substantial changes or updates to the O&M Manual whenever they incorporate them into the manual. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
3. Keep the O&M Manual at the permitted facility.
4. Follow the instructions and procedures of this manual.

b. O&M manual components

In addition to the requirements of WAC 173-240-150 (1) through (2), the O&M Manual must include:

1. Emergency procedures for plant shutdown and cleanup in the event of a wastewater system upset or failure including pipeline leaks.
2. Wastewater system maintenance procedures that contribute to the generation of wastewater.
3. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
4. Treatment plant process control monitoring schedule.
5. Wastewater sampling protocols and procedures for compliance with the sampling and reporting requirements in the wastewater discharge permit.
6. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.

S4.B. Bypass procedures

The Permittee must immediately notify Ecology of any spill, overflow, or bypass from any portion of the system.

In order to prevent possible problems in the collection system, the use of the overflow pipeline that discharges to the C lobe of the 216-B-3 Pond Complex is authorized by this permit. This

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overflow pipeline is for emergency overflow only, such as failure of the booster pumps. Conditions for authorized overflows to the C lobe are as follows:

1. The overflow system must include an alarm that immediately notifies operators of an overflow condition. If an overflow occurs, then immediate action is required to reduce the flow in order to stop the overflow. This immediate action may include ordering the shutdown of the 242-A Evaporator or the shutdown of other major flow contributors.
2. The Permittee must collect a grab sample representative of the overflow for any overflow that continues for over one hour. The representative sample must be analyzed for the permit parameters listed in Special Condition S2. Any overflow that lasts over an hour and is not sampled will be considered a violation of this permit for all permit parameters. The analytical results of an overflow must be reported to Ecology within 60 days of sample collection.
3. No overflow may last over five hours. Any overflows that exceed five (5) hours will be considered a violation of this permit.
4. No more than four overflows are authorized in any twelve (12) month period. Each overflow in excess of four (4) in a twelve (12) month period will be considered a violation of this permit.
5. The number of overflows per month must be reported on the Discharge Monitoring Reports.

Except for discharges to the C lobe of the 216-B-3 Pond Complex authorized by this Permit, a bypass is prohibited, when it is the intentional diversion of waste streams from any portion of the treatment facility other than the overflow pipeline. Ecology may take enforcement action against a Permittee for such bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.
This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.
2. Bypass is unavoidable, unanticipated, and results in noncompliance of this permit.
This permit authorizes such a bypass only if:
 - a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. No feasible alternatives to the bypass exist, such as:
 - The use of auxiliary treatment facilities.
 - Retention of untreated wastes.
 - Stopping production.

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- Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
 - Transport of untreated wastes to another treatment facility or preventative maintenance, or transport of untreated wastes to another treatment facility.
- c. The Permittee has properly notified Ecology of the bypass as required in Condition S3.E of this permit.
3. If bypass is anticipated and has the potential to result in noncompliance of this permit.
- a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:
- A description of the bypass and its cause.
 - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.
 - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during preparation of the engineering report or facilities plan and plans and specifications and must include these to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:
- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
 - If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
 - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an

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opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

S4.C. Best management practices/pollution prevention program

The Permittee must comply with the following Best Management Practices to prevent pollution to waters of the State:

1. Do not comingle process wastewater streams with sanitary (domestic) sewage.
2. Do not discharge in excess of the hydraulic capacity of the evaporation/ infiltration ponds so that the pond overflows.
3. Do not discharge priority pollutants, dangerous wastes, or toxics in toxic amounts.
4. Wastewater from the infiltration basins must not run off into any surface waters of the state or to any land not owned by or under control of the Permittee.
5. The Permittee must use recognized good practices, and all available and reasonable procedures.
6. Do not apply wastewater to the infiltration basins in quantities that significantly reduce or destroy the long-term infiltration rate of the soil or that would alter groundwater quality in amounts that would affect current and future beneficial uses.

S5. Solid wastes

S5.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S5.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S6. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit at least one (1) year prior to the expiration date of the current permit. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).

The Permittee must also submit a new application or supplement at least one hundred eighty (180) days prior to commencement of discharges which may result in permit violations. Activities which may result in such discharges include facility expansions, production increases, or other planned changes, such as process modifications in the permitted facility.

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S7. Facility loading

S7.A. Design criteria

The flows or waste loads for the permitted facility must not exceed the following design criteria:

Average Monthly Flow	5.5 million gallons per day
Average Yearly Flow	1.7 million gallons per day

The average monthly flow is defined as the highest allowable average of the daily discharges over a calendar month, calculated as the total gallons discharged during a calendar month, divided by the number of days in that month. The average yearly flow is defined as the highest allowable average of the daily discharges over a calendar year, calculated as the total gallons discharged during a calendar year, divided by the number of days in that year.

S8. Non-routine and unanticipated discharges

Beginning on the effective date of this permit, the Permittee is authorized to discharge non-routine wastewater on a case-by-case basis if approved by Ecology. Prior to any such discharge, the Permittee must contact Ecology and at a minimum provide the following information:

- a. The proposed discharge location
- b. The nature of the activity that will generate the discharge
- c. Any alternatives to the discharge, such as reuse, storage, or recycling of the water
- d. The total volume of water it expects to discharge
- e. The results of the chemical analysis of the water
- f. The date of proposed discharge
- g. The expected rate of discharge, in gallons per minute

The Permittee must analyze the water for all constituents limited for the discharge and report them as required by S8.e. above. The Permittee must also analyze for hardness and any metals that are limited by water quality standards. The analysis must also include any parameter deemed necessary by Ecology. All discharges must comply with the effluent limits as established in Condition S1 of this permit, water quality standards, and any other limits imposed by Ecology.

The Permittee must limit the discharge rate, as referenced in S8.g. above, so it will not cause erosion of ditches or structural damage to culverts and their entrances or exits.

The discharge cannot proceed until Ecology has reviewed the information provided and has authorized the discharge by letter to the Permittee or by an Administrative Order. Once approved and if the proposed discharge is to a municipal storm drain, the Permittee must obtain prior approval from the municipality and notify it when it plans to discharge.

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S9. Effluent Variability Study

Within sixty (60) days of the effective date of this permit, the Permittee must submit a proposed Sampling and Analysis Plan (SAP) and Statistical Evaluation Plan to determine the variability in the effluent resulting from the significant new source discharges from the Waste Treatment Plant (WTP) facility. The Permittee must determine such statistical evaluators (or their equivalent) as the average mean concentrations, upper 95% confidence intervals, standard deviations, and coefficients of variation. A variability study is required whenever there is a Significant New Source of discharge to the 200 Area TEDF. A Significant New Source is a new discharge to 200 Area TEDF, which may not be fully characterized through sample analysis or process knowledge and may have a measurable impact on the 200 Area TEDF effluent. The Permittee must contact Ecology when it identifies a significant new source discharge. If the Permittee is not certain if a new discharge is a Significant New Source, contact Ecology for a determination.

The Permittee must conduct the variability study in at least two seasonal phases (winter and summer) during initial testing and the first year of WTP operational discharges to TEDF. In developing the study plan, the Permittee must also consider any facility operational changes that might contribute to waste stream variability. The Permittee must conduct the study during initial testing and for one (1) year or as long as needed to evaluate all WTP significant discharges to TEDF.

The Permittee must:

1. Collect at least five (5) randomly collected grab samples per month and analyze the samples as specified in Special Condition S2.C and its schedule.
2. Analyze weekly flow-composited samples as specified in Special Condition S2.C.
3. Conduct continuous monitoring for pH, conductivity, and flow.

The Permittee must report the monitoring results for any significant new source discharge quarterly on Discharge Monitoring Reports. It must provide a final summary report with the results of the evaluation and any relevant or new information or recommendations to Ecology within one (1) year of completion of the study. The Permittee may apply to Ecology for a permit modification if the results of the quarterly reporting of monitoring results and/or study provide new information, which it was not aware of when it submitted the original application.

If upon study completion the Permittee believes the monitoring program requirements as required in Permit Special Condition S9 are unnecessarily redundant or too extensive, the Permittee may make a written request to Ecology to reduce the monitoring requirements as per Special Condition S2.G.

GENERAL CONDITIONS

G1. Signatory requirements

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

1. All permit applications must be signed by either a principal executive officer or ranking elected official.

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2. All reports required by this permit and other information requested by Ecology must 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:
 - a. The authorization is made in writing by the person described above and is submitted to Ecology at the time of authorization, and
 - b. The authorization specifies either a named individual or any individual occupying a named position.
3. Changes to authorization. If an authorization under paragraph 2.b. 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.
4. Certification. Any person signing a document under this section must 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 gathered and evaluated 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 fine and imprisonment for knowing violations."

G2. Right of entry

Representatives of Ecology 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 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 must be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

G3. Permit actions

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

1. Violation of any permit term or condition;
2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;
3. A material change in quantity or type of waste disposal;
4. A material change in the condition of the waters of the state; or
5. Nonpayment of fees assessed pursuant to RCW 90.48.465.

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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. Reporting a cause for modification

The Permittee must submit a new application at least sixty (60) days before it wants to discharge more of any pollutant, a new pollutant, or more flow than allowed under this permit. The Permittee should use the State Waste Discharge Permit application and submit required plans at the same time. Required plans include an Engineering Report, Plans and Specifications, and an Operations and Maintenance manual, (see Chapter 173-240 WAC). Ecology may waive these plan requirements for small changes. Please contact Ecology if they do not appear necessary. The Permittee must continue to comply with the existing permit until it is modified or reissued. Submitting a notice of dangerous waste discharge (to comply with Pretreatment or Dangerous Waste rules) will trigger this requirement as well.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications should be submitted at least one hundred and eighty (180) days prior to the planned start of construction. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in the permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

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

1. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to Ecology;
2. A copy of the permit is provided to the new owner and;
3. 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.

G8. Payment of fees

The Permittee must 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.

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G9. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is guilty of a crime, and upon conviction thereof will be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for each violation. Each and every such violation is a separate and distinct offense, and in the case of a continuing violation, every day's continuance is a separate and distinct violation.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of chapter 90.48 RCW and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

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