

NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM WASTE DISCHARGE PERMIT

State of Washington
Energy Facility Site Evaluation Council
Olympia, Washington 98504

In Compliance With the Provisions of
Chapters 80.50 and 90.48 Revised Code of Washington as amended

and

The Clean Water Act, as amended
Public Law 95-217

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
3000 George Washington Way
Richland, Washington 99352

Plant Location:

Section 5, T 11N, R 28E W.M.
North of Richland
Benton County, Washington

Industry Type:

Nuclear Steam
Electric Generating Plant
(WPPSS No. 2)

Receiving Water:
Columbia River


Discharge Location:
Outfall 001

Latitude: 46°28'17" N
Longitude: 119°15'45" W

Water Segment No.:
26-03-00

The above-named municipal corporation is authorized to discharge in accordance with the special and general conditions which follow.

Approved:



Curtis Eschels, Chairman
Energy Facility Site
Evaluation Council

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SPECIAL CONDITIONS

S1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the issuance of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge effluents from Outfall Discharge Serial Number 001 subject to the following limitations and monitoring requirements:

A. LOW VOLUME WASTE SOURCES PORTION OF DISCHARGE SERIAL NUMBER 001

<u>PARAMETER</u>	<u>EFFLUENT LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u> ⁽¹⁾	
	<u>Daily Maximum</u>	<u>Daily Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total Suspended Solids (lb/day)	34	5	Each batch	Grab
pH	Note ⁽³⁾			
Oil and Grease (lb/day)	7	2.5	Each batch	Grab
Flow (GPD) ⁽²⁾	40,000	20,000	Each batch	N/A

Note (1) Permittee shall monitor all low volume waste sources prior to their confluence with the recirculated cooling water.

Note (2) Permittee is allowed on an intermittent basis to discharge, subject to the provisions of General Condition 4, a maximum of 285,000 GPD additional flow originating from the liquid radwaste treatment systems.

Note (3) As long as low volume waste is discharged to the recirculating water system pH does not need to be controlled in this waste stream because the recirculated water is controlled for pH prior to release to the river.

51. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Cont.)

B. RECIRCULATED COOLING WATER BLOWDOWN PORTION OF OUTFALL DISCHARGE
SERIAL NUMBER 001

<u>PARAMETER</u>	<u>EFFLUENT LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Daily Maximum</u>	<u>Daily Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Temperature	Note ⁽¹⁾			
Total Residual Chlorine (mg/l)	0.1 mg/l ⁽²⁾		Continuous ⁽³⁾	N/A
pH	Between 6.5 and 9.0 ⁽⁴⁾		Continuous ⁽⁵⁾	N/A
Flow (GPD)	9.4×10^6	5.0×10^6 ⁽⁶⁾	Continuous	N/A

Note (1) The temperature of the recirculated cooling water blowdown shall not exceed, at any time, the lowest temperature of the recirculated cooling water prior to the addition of the makeup water, except that the temperature of the blowdown may be less than the temperature of the river.

Note (2) Upon initiating chlorination, permittee shall terminate all discharges from the recirculating water system to the receiving water until the total residual chlorine concentration has been at or below 0.1 mg/l for 15 minutes.

Note (3) Continued recording of total residual chlorine during periods of active chlorination and for two hours after recommending discharge or until chlorine residual reaches an undetectable level. If continuous chlorine monitor malfunctions, grab samples will be analyzed by amperometric titration.

Note (4) The total time during which pH values are outside this range shall not exceed 7 hours and 26 minutes in any calendar month, and no individual excursion shall exceed 60 minutes. An excursion is an unintentional and temporary incident of pH exceedance. No excursions greater than 10.0 or lower than 5.5 are allowed.

Note (5) Permittee shall include an alarm system for the pH control to provide an indication of any variance from established limits.

Note (6) During a period of major dust storm activity, daily average flow up to 5.6 MGD is allowed.

GENERAL CONDITIONS

GENERAL DISCHARGE LIMITATIONS

G1. Discharges Authorized.

All discharges and activities authorized herein shall be consistent with the terms and conditions of this permit. Permittee is authorized to discharge those pollutants which are: (1) contained in the untreated water supply, (2) entrained from the atmosphere, or (3) identified in the permit application; except as modified or limited by the special or general conditions of this permit. However, the effluent concentrations in permittee's wastewater shall be determined on a gross basis and the effluent limitations in this permit mean gross concentrations and not net addition of pollutants. The discharge of any pollutant more frequently than or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

G2. Priority Pollutants.

No discharge of polychlorinated biphenyl compounds is permitted. There shall be no detectable discharge of the priority pollutants (listed in 40 CFR Part 423, Appendix A) contained in chemicals added for water treatment. The discharge of water treatment additives which were not identified in the permit application shall be subject to Council approval.

G3. Dilution Zone.

Permittee shall not discharge any effluent which shall cause a violation of any applicable State of Washington Water Quality Criteria or standards contained in WAC 173-201, as they exist now or hereafter are amended, outside the mixing zone whose boundaries shall be:

1. The boundaries in the vertical plane shall extend from the receiving water surface to the riverbed;
2. The upstream and downstream boundaries shall be 50 feet and 300 feet, respectively, from the center line of the outfall; and
3. The lateral boundaries shall be separated by 100 feet.

G4. Liquid Radioactive Discharges.

Excess process water shall not be discharged to the river unless sampling and analysis has demonstrated that the water complies with the applicable regulations on liquid radioactive discharges. Excess process water not meeting these conditions shall be processed in the liquid radwaste treatment system prior to discharge to the river. The liquid radwaste treatment system shall provide facilities with 24-hour retention capabilities and liquids may be discharged only after sampling and analysis demonstrate that all applicable regulations are complied with. No other liquid radwaste shall be discharged at the holding facilities.

G5. Solid Waste Control.

Permittee shall handle and dispose of all solid waste material from any waste retention basins or any other source in such a manner as to prevent their pollution of any ground or surface water body. Further, permittee shall not permit leachate from such solid waste material to cause adverse effect on ground or surface water quality.

OPERATION/MAINTENANCE PROVISIONS

G6. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G7. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance and funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

G8. Bypass of Treatment Facilities.

Per 40 CFR 122.41(m), the bypass or intentional diversion of waste streams from any portion of waste treatment facilities is prohibited except:

1. When the bypass does not cause effluent limitations to be exceeded and it is necessary to perform essential maintenance to assure efficient operation;
2. Where the bypass was unavoidable to prevent loss of life or severe property damage;
3. When there are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime.

Anticipated bypasses, other than those in (1) above, shall be reported to the Council as far in advance as possible for the Council's approval. Unanticipated bypasses shall be reported to the Council in accordance with the procedure specified in General Condition G20.

G9. Upset Conditions.

Per 40 CFR 122.41(n), an upset is an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations 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

G9. Upset Conditions (continued).

facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the permittee can demonstrate through contemporaneous operating logs or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;
2. The facility was at the time being properly operated;
3. The permittee submitted notice of the upset as required by General Condition G20; and
4. The permittee complied with any remedial measures required under this permit.

MONITORING AND RECORDING REQUIREMENTS

G10. Representative Sampling and Monitoring Procedures.

All samples and measurements taken to meet the requirements of this permit shall be representative of the monitored discharge and all analytical test methods shall be approved under 40 CFR Part 136, unless other methods are specified in this permit.

G11. Recording of Results.

The permittee shall record each measurement or sample taken pursuant to the requirements of this permit for the following information: (1) the date, place, and time of sampling; (2) the dates the analyses were performed; (3) who performed the analyses; (4) the analytical techniques or methods used; and (5) the results of the analyses.

G12. Definitions.

As used in this permit, the following terms are as defined herein:

1. The "daily maximum" discharge means the total discharge by weight or volume during any calendar day and where specified, the maximum permissible pollutant concentration.
2. The "daily average" discharge means the total discharge by weight or volume during a calendar month divided by the number of days in the month that the respective discharges occur. Where less than daily sampling is required by the permit, the daily average discharge shall be determined by the summation of the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
3. "Composite sample" is a sample consisting of a minimum of six grab samples collected

G12. Definitions (continued).

at regular intervals over a normal operating day and combined proportional to flow, or a sample continuously collected proportional to flow over a normal operating day.

4. "Grab sample" is an individual sample collected in a time span of less than 15 minutes.

G13. Records Retention.

The permittee shall retain for a minimum of three years all records of monitoring activities and results, including all reports of recordings from continuous monitoring instrumentations, records of analyses performed, and calibration and maintenance of instrumentation. 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 Council.

G14. Penalties for Tampering.

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

G15. Additional Monitoring Requirements.

For good cause shown, the Council may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

REPORTING REQUIREMENTS

G16. Discharge Monitoring Reports.

The results of monitoring required by the special conditions shall be summarized by month and reported on a Discharge Monitoring Report (EPA 3320-1), postmarked no later than the 15th day following the end of the month. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Council and EPA at the following addresses:

EFSEC
Attn: Executive Secretary
Mail Stop: PY-11
Olympia, WA 98504

U.S. EPA Region X
Attn: Water Compliance Section (M/S-513)
1200 - 6th Avenue
Seattle, WA 98101

G17. Compliance Schedules.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

G18. Additional Monitoring by the Permittee.

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Reports. Such increased frequency shall also be indicated.

G19. Planned Changes.

The permittee shall notify the Council as soon as possible of any planned physical alterations or additions to the permitted facility when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. The permittee shall also give advance notice of any planned changes in the facility which may result in noncompliance with permit requirements.

Prior to constructing or modifying any wastewater control facilities, detailed plans shall be submitted to the Council for review and approval. Facilities shall be constructed and operated in accordance with the approved plan.

G20. Noncompliance Reporting.

1. The following occurrences of noncompliance shall be reported orally within 24 hours from the time the permittee becomes aware of the circumstances:
 - (a) any noncompliance which may endanger health or the environment.
 - (b) any unanticipated bypass which exceeds any effluent limitation in the permit (see General Condition G8).
 - (c) any upset which exceeds any effluent limitation in the permit (see General Condition G9).
 - (d) violation of a maximum daily discharge limitation for any of the pollutants listed in Special Conditions S1.A and B of this permit.
2. A written report shall also be submitted to the addresses in General Condition G16 within five working days of the time that the permittee becomes aware of the circumstances. The written description shall contain:
 - (a) a description of the noncompliance and its cause;
 - (b) the period of noncompliance, including exact dates and times;
 - (c) the estimated time noncompliance is expected to continue if it has not been corrected; and
 - (d) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. The Council may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

G21. Other Noncompliance Reporting.

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for General Condition G16 are submitted. The reports shall contain the information listed in General Condition 20.

G22. Toxic Pollutant Discharges.

The permittee will notify the Council as soon as it knows or has reason to believe that any toxic pollutant not limited by the special conditions of this permit will be discharged on a routine or frequent basis at levels exceeding the notification levels of 40 CFR 122.42(a)(1) or on a non-routine or infrequent basis at levels exceeding the notification levels of 40 CFR 122.42(a)(2).

ADMINISTRATIVE REQUIREMENTS AND OTHER PROVISIONS

G23. Permit Actions.

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the Council shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

G24. Duty to Comply.

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

1. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
2. Penalties for Violations of Permit Conditions. Violations of conditions of this permit are subject to enforcement actions and penalties as provided for in Chapter 80.50 RCW. Except as provided in permit conditions G8, Bypass of Treatment Facilities and G9, Upset Conditions, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

G25. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.

G26. Duty to Provide Information.

The permittee shall furnish to the Council, within a reasonable time; any information which the Council 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 shall also furnish to the Council, upon request, copies of records required to be kept by this permit.

G27. Inspection and Entry.

The permittee shall allow authorized representatives of the Council, upon the presentation of credentials and such other documents as required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit;
2. To have access to and copy at reasonable times any records that must be kept under the terms of this permit;
3. To inspect at reasonable times any monitoring equipment or method of monitoring required in this permit;
4. To inspect at reasonable times any collection, treatment, or discharge facilities; and
5. To sample at reasonable times any discharge of pollutants.

G28. Maintain Compliance.

The permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment process until the process is restored or an alternative process method is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment process is reduced, lost, or fails.

G29. Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privilege.

G30. Transfers.

This permit may be transferred to a new permittee if:

1. the current permittee notifies the Council at least 30 days in advance of the proposed transfer date;

G30. Transfers (continued).

2. the notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
3. The Council does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b) above.

G31. Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject.

G32. Signatory Requirement.

All applications, reports or information submitted to the Council shall be signed and certified as provided for under 40 CFR 122.22.

G33. Compliance with Other Regulations.

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

SPECIAL STUDIES AND REPORTS

G34. Bioassays.

So that the Council may satisfy its concerns regarding the aquatic resource, the permittee shall conduct 96-hour toxicity tests using a 100% concentration of composite wastewater on a schedule and format approved by the Council. The results of the tests shall be reported to the Council in a timely manner. If the survival rate of salmonid test organisms is less than 80%, the Council will discuss with the permittee methods of mitigation such that 80% survival can be achieved.

The Council reserves the right to require the submission of a schedule and format of additional tests if the Council or the permittee determines that the makeup of the composite discharge has been altered to the detriment of the environment.

G35. Chlorine Minimization.

Permittee shall continue the 12-month study initiated in December 1984 on the use of chlorine for biofouling prevention in cooling tower operation. The purpose of the study shall be to determine the minimum daily discharge of free available and total residual chlorine which will allow efficient plant operation. The results of this study will be evaluated by the Council for use in the potential modification of this permit.

Washington Public Power Supply System

3000 George Washington Way P.O. Box 968 Richland, Washington 99352-0968 (509)372-5000

August 29, 1985
G02-85-498

Docket No. 50-397

Mr. J. B. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Dear Mr. Martin:

Subject: NUCLEAR PLANT NO. 2
SEMI-ANNUAL EFFLUENT REPORT
JANUARY 1 to JUNE 30, 1985 (ATTACHED)

In accordance with Title 10 of the Code of Federal Regulations, Part 50.36a (a) (2), the subject report is herewith being submitted.

Should you have any questions, please contact Mr. R. G. Graybeal, Manager, WNP-2 Health Physics/Chemistry.

Very truly yours,

C. M. Powers

C. M. Powers
WNP-2 Plant Manager

vih

Attachment

cc: JO Bradfute - NRC
RC DeYoung - NRC
C Eschels - EFSEC
D Jaquish - DOE
D Sherman - Amer. Nuclear Insurers
TR Strong - DSHS
AD Toth - NRC Site
Document Control Desk - NRC

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