

BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Compliance By The)
WASHINGTON PUBLIC POWER SUPPLY)
SYSTEM NUCLEAR PROJECT NO. 2 (WNP-2))
With the Site Certification Agreement,)
Chapters 80.50 and 90.48 RCW, and the Rules)
and Regulations of the Energy Facility)
Site Evaluation Council)
.....)

ORDER REGARDING
NOTICE OF VIOLATION
EFSEC NO. 91-001

This matter came before the Energy Facility Site Evaluation Council (hereinafter COUNCIL or EFSEC) at its regular meeting of October 14, 1991. The Council issued Notice of Violation, EFSEC No. 91-001, with monetary penalty, on August 26, 1991 to the Washington Public Power Supply System (hereinafter Supply System) for a discharge of circulating blowdown water at Nuclear Project (Plant) No. 2 which was not in compliance with effluent limitations for pH. Pursuant to RCW 80.50.150, the notice specified a time period in which the Supply System could appeal the notice and the fine imposed therein. The appeal period has elapsed and the Supply System did not request or submit application for reconsideration of this matter. Payment in full of the penalty imposed by the notice has been received by the Council.

Based upon the foregoing, the Council enters the following:

FINDINGS OF FACT

1. That Plant No. 2 holds National Pollutant Discharge Elimination System (NPDES) Permit No. WA-002515-1, issued by the COUNCIL, and has held such permit at all times material hereto.
2. That for approximately one hour on May 21, 1991, the pH of the circulating cooling water blowdown being discharged was above the 9.0 limit specified in the NPDES Permit.
3. That Plant No. 2 operational procedures were inadequate to cover this circumstance where the plant was in a refueling and maintenance outage and that the normal complete cooling system was not in operation to provide adequate mixing of the corrosion inhibitor (Calgon PCL-8125) to reduce the pH level of the discharge water. That Calgon PCL-8125 was injected into the make-up water line that was intermittently active which resulted in a high concentration of corrosion inhibitor entering the recirculating cooling water basin. That the high pH water was almost immediately pumped to the plant discharge line by temporary pumps.
4. That the Supply System incorrectly believed the excursion was caused by an instrument error.

5. That the Supply System failed to report the pH excursion within 24 hours from the time the permittee became aware of the circumstances as required by Section G11.1.(d) of its NPDES Permit No. WA-002515-1.
6. That it took the Supply System 24 days from the date of the incident to determine an excursion had occurred and report the incident to the Council.
7. That this was the second pH excursion during an outage period at Plant No. 2 in a two-year interval.
8. That the discharge does not appear to have threatened the public health or environment.
9. That the effect of the discharge appears to have been mitigated by the small increment and duration of the excursion, the blowdown rate, the hold-up and mixing afforded by 3.5 miles of blowdown pipe and the rapid mixing which occurs in the Columbia River.
10. That the Supply System has initiated revisions to relevant plant operational procedures; is providing additional training to Operations personnel; and will conduct an evaluation of the current design of the chemical feed system. That these measures are intended to prevent future recurrence of such incidents.
11. That EFSEC has issued two previous NPDES Permit violations without monetary penalty to Plant No. 2 in its eight years of operation.
12. That Plant No. 2's operational record and the Supply System's corrective actions should be considered in determining the penalty assessment.
13. That the Council issued a Notice of Incident and Request for Assurance of Compliance (NOI), EFSEC No. 91-001, dated July 8, 1991, requiring the Supply System to provide details of the measures that have been taken, or will be taken, to preclude recurrence of this incident.
14. That Council staff reviewed the Supply System's August 9, 1991 response to the NOI, and recommended that the factors associated with this incident warranted escalating the enforcement action to a Notice of Violation with a monetary penalty.
15. That the Council's Executive Committee considered this matter at its August 19, 1991 meeting and approved a motion to forward the staff's recommendation to the Council for consideration.
16. That the Council subsequently issued Notice of Violation, EFSEC No. 91-001, on August 26, 1991, with an assessment of a \$1,000 penalty.
17. That the Supply System notified the Council by letter dated September 24, 1991, that they do not plan to appeal the Notice of Violation and paid the \$1,000 fine.

Based on the foregoing Findings of Fact, the Council enters the following:

CONCLUSIONS OF LAW

That the conduct described in Findings of Fact No. 2 above constitutes a violation of Plant No. 2 NPDES Permit Conditions S1.A. Note (3) and G11.1 and, pursuant to RCW 80.50.150, is grounds for issuance of a Notice of Violation and the assessment of a civil monetary penalty.

Based upon the foregoing Findings of Fact and Conclusions of Law, the Council enters the following:

ORDER

IT IS HEREBY ORDERED That the Supply System is on notice that a violation has been found and that a \$1,000 penalty has been assessed.

The Council notes that any further violation of the terms of the NPDES Permit may result in additional formal enforcement actions to include the assessment of monetary penalties.

This Order closes out Notice of Incident and Request for Assurance of Compliance, EFSEC No. 91-001 dated July 8, 1991.

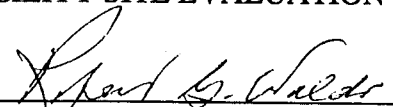
The Council admonishes the Supply System to be mindful of all of the conditions of the Plant No. 2 NPDES Permit, and its responsibilities to perform the following:

1. Implement corrective actions, including revisions to Plant No. 2 Operating Procedures to ensure proper mixing and distribution of chemicals through the circulating water system during :
 - a) Normal operations; and
 - b) Refueling and maintenance outages;
2. Conduct training for Plant No. 2 Operations personnel in the revised discharge procedures. The training will cover WNP-2 Site Certification Agreement and NPDES Permit conditions that specify reporting requirements for bypass, upset and non-compliance incidents (NPDES Permit General Conditions G9, G10 and G11).
3. Evaluate the current design of the chemical feed system to determine if the chemical addition point should be moved to the discharge side of the Plant Service Water and Circulation Water pumps. The results of the design evaluation will be reported to the Council.
4. Complete the corrective measures directed herein by March 1, 1992 and report the results to the Council.

Dated at Olympia and effective this 14th day of October 1991.

WASHINGTON STATE ENERGY
FACILITY SITE EVALUATION COUNCIL

By


Robert G. Waldo
Chair

ATTEST:

By


Jason Zeller
EFSEC Manager

COUNCIL ORDERS - HANFORD NO. 2

<u>NO.</u>	<u>DATE</u>	<u>SUBJECT</u>
None	4-12-71	Findings, Conclusions and Order Regarding Land Use Plans of Thermal Power Plant Site Application No. TPPSEC 71-1
None	4-12-71	Order Allowing Limited Intervention to Tri-City Nuclear Industrial Council
None	4-12-71	Concurrence and Partial Dissent
None	3-27-72	Findings of Fact, Conclusions of Law and Order Regarding the Final Hearing on Thermal Power Plant Site Application No. TPPSEC 71-1
None	2-18-75	Findings of Fact, Conclusions of Law and Order Re Certification Agreement Amendment
None	2-24-75	Order Appointing A Hearing Examiner and Establishing His Functions and Authority
None	4-28-75	Findings of Fact, Conclusions of Law and Order for NPDES permits, a §401a certificate of compliance, and modification of certain portions of the Hanford No. 2 Site Certification Agreement. (Copy in this file. <u>Original</u> is in WPPSS 74-2 file.)

SUBSEQUENT ORDERS ISSUED ON THIS APPLICATION FILED IN CONSOLIDATED COUNCIL ORDERS FILE - 500 SERIES.

BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the)	
Application No. 71-1 of the	)	FINDINGS, CONCLUSIONS
	)	AND ORDER REGARDING LAND
WASHINGTON PUBLIC POWER	)	USE PLANS OF THERMAL POWER
SUPPLY SYSTEM,	)	PLANT SITE APPLICATION
	)	NO. TPPSEC 71-1
A Municipal Corporation of)	
the State of Washington.)	

This matter came on for public hearing before the Washington Thermal Power Plant Site Evaluation Council convened in Richland, Washington, at the Richland City Hall beginning at 1:30 P.M., March 8, 1971, pursuant to public notice heretofore published as required by the laws of the State of Washington, and served upon the parties and counsel pursuant to the provisions of WAC 1-08-080. Said hearing being recessed to March 22, 1971, at 2:00 P.M., Richland City Hall.

The parties to this proceeding and counsel who appeared concerning the subject matter of this decision were: (1) The applicant Washington Public Power Supply System, appearing by its counsel, Richard Q. Quigley, 130 Vista Way, Kennewick, Washington, and Houghton, Cluck, Coughlin & Riley, 320 Central Building, Seattle, Washington, John W. Riley of counsel; (2) Mr. Malachy Murphy, Assistant Attorney General of the State of Washington, Counsel for the Environment; (3) Mr. Charles F. Murphy, Assistant Attorney General, Temple of Justice, Olympia, Washington, Counsel for the Washington State Thermal Power Plant Site Evaluation Council.

Nature and Background of this Proceeding.

The Washington Public Power Supply System filed its application for certification of a thermal power plant site which is situated in Benton County on January 28, 1971. The statutory filing fee of \$25,000 was received by the Council and transmitted to the State Treasurer.

Pursuant to the provisions of RCW 80.50.090 (1) and (2) and WAC 463-08-035 the Council directed these hearings should be convened for the purpose of determining whether or not the proposed site is consistent and in compliance with county and regional land use plans or zoning ordinance, and for the purpose of conducting public informational hearings pursuant to WAC 463-08-035.

Prior to said hearing , the Board of County Commissioners of Benton County, Washington, duly appointed its representative to sit as a member of the Washington Thermal Power Plant Site Evaluation Council pursuant to the provisions of RCW 80.50.030 (4).

WHEREUPON, this public hearing having been duly convened at 1:30 P.M., March 8, 1971, and later recessed to 2:00 P.M., March 22, 1971, at Richland City Hall, Richland, Washington, and documentary evidence and testimony having been offered by the applicant and other persons in attendance and the members of the Council having examined the documents and records concerning this above-referenced application previously filed herein and being fully advised, the Council now makes and enters the following:

FINDINGS OF FACT

1. The proposed site for construction of the thermal power plant described in the above-referenced application is situated in Benton County, Washington, and is more particularly described as follows:

All of Sections 29, 30, 31 and 32, and the west half of Section 33, Township 12 North, Range 28 East, Willamette Meridian; and, all of Sections 4, 5, 6, 8, 9, 10, 15 and 16, and the northeasterly half of Sections 7 and 17, and the portion of Sections 11 and 14 West of the Columbia River, Township 11 North, Range 28 East, Willamette Meridian; and the east half of Sections 25 and 36, Township 12 North, Range 27 East, Willamette Meridian; and, that portion of the east half of Section 1 lying northeasterly of the highway, Township 11 North, Range 27 East, Willamette Meridian, all in Benton County, State of Washington.

2. The proposed plant site is situated in an area which is zoned as "Unclassified" according to the Benton County Zoning Code, a certified copy of which has been filed in these proceedings and is identified as Exhibit 1 herein. The Benton County Zoning Code is the only local land use zoning regulation in effect which applies to the proposed site more specifically described above and the anticipated use of the proposed site is a use which is permitted within the applicable zoning classification of the area in which the site is located.

3. Said Benton County Zoning ordinance has not been modified, amended or altered either as to classifications or land uses permitted as to this site.

4. The Benton-Franklin Governmental Conference is a Regional Planning Agency consisting of various governmental agencies and municipal corporations of Benton and Franklin Counties, Washington. Said Conference is organized under provisions of RCW 36.64.080 for the purpose of conducting studies and recommending long range land use plans of areas within Benton and Franklin Counties. The Benton-Franklin Governmental Conference regional land use plan is consistent with the existing Benton County Zoning Code, and, insofar as it applies to the proposed site, anticipates the same uses as the existing Benton County Zoning Code.

5. The plant site is situated in an area known as the United States Atomic Energy Commission Reservation, also known as the "Hanford Works" which has for a period of more than twenty-five years been devoted exclusively to industrial activities related to atomic energy.

6. The applicant proposes to use the site for the construction of a nuclear fueled electrical generating plant with a capacity of approximately 1,100,000 kw/e. The electrical generating facility and all related buildings and facilities, a cooling pond reservoir, and related electrical transmission facilities will all be located on the Atomic Energy Commission Reservation.

On the basis of the foregoing Findings of Fact, the Council now makes and enters the following

CONCLUSIONS OF LAW

1. These hearings of the Washington Thermal Power Plant Site Evaluation Council have been duly convened pursuant to the provision of RCW 80.50.090 (1) and (2) and WAC 463-08-035.

2. Public notice of this hearing has been given to all parties, their counsel, the public and various public information media and the press as required by law.

3. Agencies designated as members of this Council and/or their duly designated representatives were present and participated in the hearings in the manner required by law.

4. The Council has jurisdiction of the applicant and the subject matter of this hearing.

5. The proposed nuclear power plant site including associated transmission lines described in the application on file herein is for a use and a purpose which is consistent with and in compliance with Benton County and regional land use plans and zoning requirements which bear upon the land areas immediately surrounding the proposed plant site and the plant site itself.

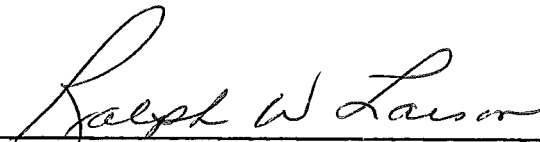
NOW, THEREFORE, pursuant to the provisions of RCW 80.50.090 (1) and (2) and WAC 463-08-035 it is hereby

ORDERED AND DECLARED by the Washington Thermal Power Plant Site Evaluation Council as of March 22, 1971, that the use and purpose of the proposed nuclear power plant site described in application No. 71-1 on file with the Council is consistent with and in compliance with Benton County and regional land use plans and zoning requirements.

SIGNED AND ENTERED this 12th day of April, 1971.

WASHINGTON STATE THERMAL POWER PLANT
SITE EVALUATION COUNCIL

By



Ralph W. Larson
Department of Game
Acting Chairman

Approved for entry.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

By Richard D. Dingley
Counsel

David Bellenger
Of Counsel

Malachuk P. Manly
Counsel for the Environment

Eric H. Hunsley
Attorney for the Washington Thermal
Power Plant Site Evaluation
Council

In the Matter of the)
Application No. 71-1 of the)
WASHINGTON PUBLIC POWER)
SUPPLY SYSTEM,)
A Municipal Corporation of)
the State of Washington.)


ORDER ALLOWING LIMITED
INTERVENTION TO TRI-CITY
NUCLEAR INDUSTRIAL COUNCIL

- 1 -

by the Council and the Governor in the application process;

(4) To file a petition for rehearing.

DATED and ENTERED this 12th day of April, 1971.



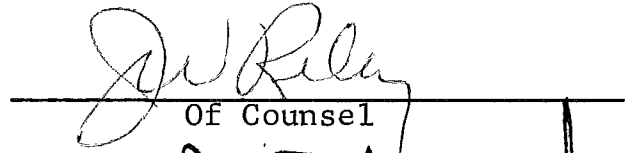
Acting Chairman

Approved for Entry:

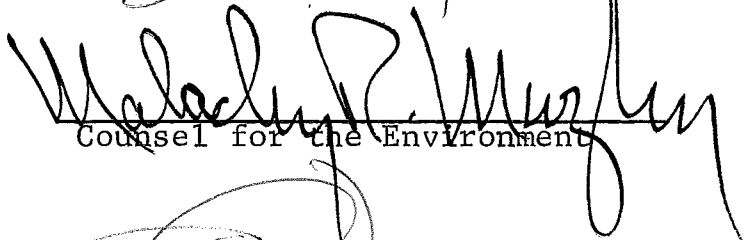
WASHINGTON PUBLIC POWER SUPPLY SYSTEM

By 

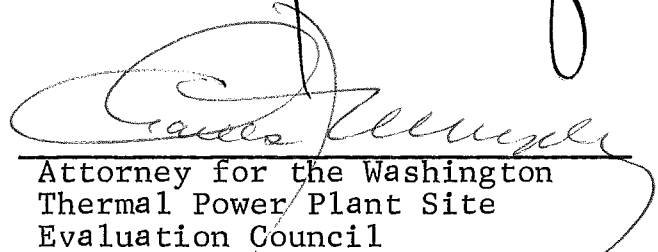
Counsel



Of Counsel



Counsel for the Environment



Attorney for the Washington
Thermal Power Plant Site
Evaluation Council

BEFORE THE STATE OF WASHINGTON
THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the)	
Application No. 71-1 of the)	
)	
WASHINGTON PUBLIC POWER)	
SUPPLY SYSTEM,	)	CONCURRENCE AND PARTIAL DISSENT
)	
A Municipal Corporation of)	
the State of Washington)	

I concur in the Council's approval of the application of Washington Public Power Supply System for site certification of a proposed nuclear electric generating facility to be located in Benton County, Washington. However, I dissent from finding of fact 11.

In the enactment of 80.50 R.C.W., I believe the legislature intended certification pursuant thereto to be entire including the right to withdraw surface or ground water where an adequate supply of unappropriated water exists. It appears that there is sufficient unappropriated water flowing in the Columbia at the point of withdrawal so that use for the proposed nuclear plant will not impair any existing water rights. A site certification and construction permit without an assured supply of water would be virtually meaningless.

I cannot conceive of the Council approving a site application where the evidence did not indicate an adequate supply of unappropriated water. Neither, can I imagine the question of adequacy of water not being fully tried before the Council in the case of an application where such supply was in doubt .

In my opinion finding 11 should provide: The Council finds there is adequate unappropriated water in the Columbia River at the proposed point of withdrawal to permit the applicant to remove water from the river for operation of the proposed plant.



DONALD H. BRAZIER, Chairman

WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

John McCurry
Office of Program Planning and
Fiscal Management

Virgil Curren
Dept. of Agriculture

Lawrence B. Bradley
Dept of Commerce & Econ. Dev.

BEFORE THE STATE OF WASHINGTON
THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the)	
Application No. 71-1 of the	)	FINDINGS OF FACT,
WASHINGTON PUBLIC POWER	)	CONCLUSIONS OF LAW AND
SUPPLY SYSTEM,	)	ORDER REGARDING THE FINAL
	)	HEARING ON THERMAL POWER
A Municipal Corporation of	)	PLANT SITE APPLICATION
the State of Washington	)	NO. TPPSEC 71-1

The above-entitled cause involves an application by the Washington Public Power Supply System for site certification of a proposed nuclear electric generating facility to be located in Benton County, Washington.

The following appearances were entered during these proceedings:

APPLICANT:	WASHINGTON PUBLIC POWER SUPPLY SYSTEM, by John W. Riley, 320 Central Building, Seattle, Washington 98104; and Richard Q. Quigley, P. O. Box 968, Richland, Washington 99352
COUNSEL FOR THE ENVIRONMENT:	COUNSEL FOR THE ENVIRONMENT, Malachy Murphy, Assistant Attorney General, Temple of Justice, Olympia, Washington 98504
STATE AGENCIES:	DEPARTMENT OF NATURAL RESOURCES, by Ted Torge, Assistant Attorney General, Public Lands Building, Olympia, Washington 98504 DEPARTMENT OF ECOLOGY, by Charles Lean, Assistant Attorney General, St. Martins College, Olympia, Washington 98504 DEPARTMENT OF FISHERIES and DEPARTMENT OF GAME, by William Lemke, Assistant Attorney General, Room 115, General Administration Building, Olympia, Washington 98504

DEPARTMENT OF SOCIAL AND HEALTH
SERVICES, by William Collins, Assistant
Attorney General, P. O. Box 1788,
Olympia, Washington 98504

INTERVENORS: Limited intervention status was authorized the TRI-CITY NUCLEAR INDUSTRIAL COUNCIL, P. O. Box 2608, Tri-Cities, Washington 99302, who did not make any further appearance through an attorney.

NATURE AND BACKGROUND OF THE PROCEEDINGS

In response to RCW 80.50.040 and RCW 80.50.050 the Council on May 7, 1970, developed and filed Rules of Practice, chapter 463-08 WAC, and Guidelines of a general nature for all applicants, chapter 463-12 WAC.

The application of the Washington Public Power Supply System, accompanied by the required fee, was filed with the Thermal Power Plant Site Evaluation Council on January 28, 1971.

As a consequence of this filing, the Siting Council engaged in a review and processing of the application over thirteen months, culminating in a contested case hearing, as required by RCW 80.50.090(3), concluded on February 16, 1972.

The Council proceedings have been carried on in such a manner as to meet the legislative intent expressed in RCW 80.50.010, namely to seek courses of action that will balance the increasing demands for thermal power plant location and operation in conjunction with the broad interests of the public.

Further, such action has been based on these premises:

1. To assure Washington state citizens that, where applicable, operational safeguards are at least as stringent as the criteria established by the federal government and

are technically sufficient for their welfare and protection.

2. To preserve and protect the quality of the environment; to enhance the public's opportunity to enjoy the esthetic and recreational benefits of the air, water and land resources; to promote air cleanliness; and to pursue beneficial changes in the environment.

3. To provide abundant low-cost electrical energy.

The Council also has been guided by the expressed policy of the State of Washington that, while recognizing the pressing need for increased power generating facilities, the state shall ensure through available and reasonable methods that the location and operation of thermal power plants will produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.

The Council has processed this first application under the new state siting law (chapter 80.50 RCW) mindful of the pioneering nature of these endeavors. It has afforded the utmost opportunity for all individuals appearing in this matter to make submittals to the Council. The Council further has conducted three of its meetings in the Richland, Washington, area and the Council members have physically examined the site area itself. The Council is also mindful of the increasing environmental concerns of the public, as reflected in the State Environmental Policy Act of 1971 which was enacted after consideration of this application had been in progress for several months. The Council has cooperated with the concerned federal

agencies, such as the original Hanford No. 2 regional task force of the Department of Interior and the more recent regional organization of the Environmental Protection Agency.

NOW, THEREFORE, the Council, having concluded the contested public hearing, and having thus described the general matters inquired into, now makes the following Findings of Facts and Conclusions of Law. Those portions of the record of these proceedings pertaining to ultimate facts are incorporated herein and also made a part of these findings by this reference.

FINDINGS OF FACT

The Council finds:

I.

That the Applicant, Washington Public Power Supply System, duly filed on January 28, 1971, an application for a thermal power plant site certification, including transmittal of the required \$25,000 fee. The proposed plant, scheduled to go on line in the Fall of 1977, has an anticipated life of approximately forty (40) years. The plant is an 1100 megawatt electric generating plant utilizing a boiling water reactor nuclear steam supply system with mechanical draft cooling towers, and is the No. 4 power plant of the Ten Year Hydro-Thermal Program sponsored by the utilities of the region in cooperation with the Bonneville Power Administration. It would be located in Benton County at a site approximately twelve miles north of the City of Richland, within the federally-owned area known as the Hanford Operations Area of the United States Atomic Energy Commission and an

adjacent portion of the Columbia River. The approximately 1,100 acre site is within Sections 2, 3, 4 and 5 of Township 11 North, Range 28 East, W.M., and is more particularly described as follows:

Beginning at the Southwest corner of Section 11, Township 11 North, Range 28 East, W.M., said corner having Washington State coordinates, South zone, of North 408,335.30 and East 2,307,653.50; thence North $0^{\circ}41'08''$ East 8,065.28 feet to the TRUE POINT OF BEGINNING; thence West 11,153.57 feet; thence South $01^{\circ}01'23''$ East, 3000.48 feet; thence South $88^{\circ}53'54''$ West 5,200.96 feet; thence North $0^{\circ}31'41''$ West 3690.15 feet; thence East 1,430.00 feet; thence North 1,865.69 feet; thence North $87^{\circ}46'08''$ East 3,703.83 feet; thence South $01^{\circ}01'23''$ East 1,600.25 feet; thence East 11,189.29 feet; thence North $01^{\circ}01'23''$ East 1,800.29 feet; thence North $89^{\circ}07'55''$ East, 3,300.38 feet to the line of Navigation of the West bank of the Columbia River; thence southerly along said line of Navigation to a point that bears North $89^{\circ}15'21''$ East from the TRUE POINT OF BEGINNING; thence South $89^{\circ}15'21''$ West 3,850.32 feet more or less to the TRUE POINT OF BEGINNING. Further; Beginning at the southwest corner of Section 11, Township 11 North, Range 28 East, W.M., said corner having Washington State Coordinates South zone, of North 408,335.30 and East 2,307,653.50; thence North $0^{\circ}41'08''$ East 8,065.28 feet; thence North $89^{\circ}15'21''$ East, 3,850.32 feet to a point on the line of Navigation of the West bank of the Columbia River and the TRUE POINT OF BEGINNING of this description: thence continuing North $89^{\circ}15'21''$ East, 600.00 feet; thence North $10^{\circ}07'14''$ West 2845.56 feet; thence South $89^{\circ}07'55''$ West 600.00 feet to a point on said line of Navigation; thence southerly along said line of Navigation to the TRUE POINT OF BEGINNING of this description.

The above description is based upon Washington State Coordinate System, South Zone. This property will be leased by the Supply System from the United States Atomic Energy Commission and the Washington State Department of Natural Resources in two separate leases.

II.

That the Council commissioned its own independent consultant on May 12, 1971, Whitacre Engineers, Inc., of Tacoma, Washington, to measure the consequences of the proposed power plant on the environment of this site application as required by RCW 80.50.070(2). The consultant conducted this study and delivered the required report on December 1, 1971. The consultant's investigations and report indicated that no significant adverse environmental impact is likely to result from the proposed project. The full cost of this study by the independent consultant has been borne by the Applicant. Agreement from the Applicant has been secured for the Council to incur additional costs not to exceed \$5,000 beyond the basic \$25,000 fee.

III.

That pursuant to RCW 80.50.080 the Attorney General appointed an Assistant Attorney General as counsel for the environment for the duration of the certification proceedings. The said counsel for the environment has been accorded and has exercised the rights, privileges and responsibilities of an attorney representing a party in the formal action.

IV.

That the Council within sixty days of receipt of the application for site certification, pursuant to RCW 80.50-.090(1), did conduct a public hearing in March, 1971, in the county of the proposed site with respect to land use and zoning considerations. The Council's findings, conclusions

and order indicating compliance of said proposed project with existing land use and zoning requirements of Benton County, as presented during this hearing, are represented in an Order dated April 12, 1971. Said Order is herewith incorporated into and made a part of these findings.

V.

That a series of eighteen regular meetings starting February 8, 1971, five prehearing conferences, and several ad hoc meetings were held relating to certain detailed aspects of this siting application. Said prehearing conferences culminated in four Orders dated June 28, 1971; October 12, 1971; November 22, 1971; and December 15, 1971; which are herewith incorporated into and made part of these findings. Said Orders acknowledge varying degrees of compliance by the application with sections of the Council's guidelines to applicants. The final prehearing conference Order, dated December 15, 1971, Prehearing Order No. 4, determined that all sections of the application were in compliance with the Council guidelines except the following sections:

WAC 463-12-010 (5)
WAC 463-12-015 (5)
WAC 463-12-025 (1) (a)
WAC 463-12-025 (1) (b)
WAC 463-12-025 (2) (a)
WAC 463-12-025 (2) (c)
WAC 463-12-030 (1)
WAC 463-12-035 (2) (a)
WAC 463-12-035 (2) (c)
WAC 463-12-035 (2) (d)
WAC 463-12-045 (1)

VI.

That as a result of the Prehearing Conference Order No. 4, dated December 15, 1971, the Council then determined that a

final public hearing pursuant to RCW 80.50.090(3) was ready to be held on the following issues: (1) consideration of the environmental impact statement prepared in accordance with the State Environmental Policy Act of 1971 (chapter 109, Laws of 1971, 1st Extraordinary Session), (2) recommendations which should be made to the Governor respecting this application for a nuclear power plant site certification, and (3) terms and conditions which should be proposed to the Governor for inclusion within any such site certification agreement.

VII.

That a public hearing conducted as a contested case under chapter 34.04 RCW, RCW 80.50.090 and chapter 463-08 WAC was commenced on January 10, 1972, and was continued thereafter for a total of six separate days in which testimony and sixty-four exhibits were received by the Council. At this public hearing all persons were entitled to be heard; and all who wished to be heard were heard in support of, or in opposition to, the application for certification. A special opportunity was afforded members of the public residing in the area of Richland when the hearing was convened in that area on January 14, 1972, in the City Hall, Richland, Washington. A transcript of the Richland portion of the hearing is available for inspection and a transcript of the remaining hearing activity has been ordered on behalf of the Council. The Council composition was established in accordance with chapter 80.50 RCW and Council membership attendance during the course of these proceedings satisfied the requirements of chapter 34.04 RCW.

VIII.

That said contested case hearing produced evidence that Applicant has satisfied the requirements of all the Council guidelines except:

WAC 463-12-010 (5)
WAC 463-12-025 (2) (a)
WAC 463-12-025 (2) (c)
WAC 463-12-035 (2) (c)

The Council further finds that these remaining sections can be specifically treated by certain of the terms and conditions in the Certification Agreement which will satisfy these four guidelines for purposes of issuance of a Site Certification Agreement.

IX.

That the Council and the Applicant did mutually agree to an additional sixty days beyond the twelve months specified in RCW 80.50.100(1) within which to make its recommendations to the Governor for the disposition of this application for certification. Said final reporting date is March 28, 1972.

X.

That the Environmental Impact Statement prepared by the Council is in compliance with the State Environmental Policy Act of 1971 (chapter 109, Laws of 1971, 1st Extraordinary Session). Said statement has been duly filed in accordance with the requirements of the State Environmental Policy Act and a copy of said statement will accompany final processing of this application.

XI.

That authority for the appropriation of surface and ground waters is needed by the Applicant for the construction and operation of this plant, and that the Site Certification Agreement, pursuant to RCW 80.50.120, shall incorporate such water withdrawal permits as are necessary. The Applicant has supplied sufficient factual data to allow the Council to initiate all legal procedures required for this purpose. No evidence was introduced to indicate that adequate water is not available in the area of the Columbia River at which the project is to be located.

XII.

That a need exists to have a continuing consulting process between the Applicant, its contractors and the Council after issuance of the Certification Agreement on matters that directly or indirectly affect natural resources, environmental quality or items specifically within the jurisdiction of individual state agencies and this Council.

XIII.

That such consulting process includes the need in advance of the Applicant's action for the Council to review

and examine the means of implementing the concepts set forth in the application; in so doing the Council needs to be able to disapprove of the means of said implementation in order to effectively carry out its duties.

XIV.

That a need exists to have an amendatory process so that either the Council or the Applicant may initiate amendments to the Certification Agreement. Except in emergency situations as described in Finding XV below, said amendatory process needs to be accomplished in a similar manner as development of the original Certification Agreement.

XV.

That in certain circumstances where a dangerous degree of impact on the environment exists or is imminent, the Council may impose specific conditions to, or requirements upon, the Applicant in the terms and conditions of the Certification Agreement as a consequence of any said emergency situation. The Administrative Procedures Act in RCW 34.04.170(2) contains authority for the Council to find that the public health, safety, or welfare may imperatively require such emergency action.

XVI.

That a conflict in the testimony exists regarding the thermal water discharge facility in the Columbia River as to the best method of dispersing the discharge. Regardless of whatever method Applicant may use, performance specifications regarding dilution zones are needed in the Certification Agreement to adequately protect the resources involved.

XVII.

That a detention pond, or an equivalent facility, is needed in order to prevent the discharge of unusual or unexpected effluents from reaching the river without proper treatment. That the cooling tower basins, as proposed by the Applicant, have the capability to serve as such equivalent facility.

XVIII.

That programs for monitoring the effects on the environment of plant construction and operation, including but not limited to certain prescribed discharges, are needed to assure the continued compliance with the terms of the certification. The Council, or its authorized designees, needs to make inspections, to require submissions of data, and to require reasonable alterations to the monitoring programs.

XIX.

That the point of chlorine introduction to the cooling system of the plant needs to be located so as to preclude any quantities of chlorine from entering the river in excess of 0.1 PPM (parts per million) as chlorine is harmful to aquatic resources.

XX.

That the outline emergency plan as proposed in the application, § 015(2), pp. 1-17, needs to be made a part of the Council's recommended Certification Agreement. Future development and alterations will be necessary and need to be accomplished with concurrence of the Council.

XXI.

That neither members of the public individually, nor counsel for the environment representing the public's interest in protecting the quality of the environment, presented evidence in opposition to the certification of this proposed plant.

XXII.

That uncontroverted evidence was presented to the Council regarding hydrological, geological, seismological, meteorological, and radiological data indicating that the planned construction and operation of the project at the proposed site present no unacceptable environmental hazards.

XXIII.

That the associated transmission lines to be constructed by the Applicant for this project are to be located entirely within the AEC Hanford Operations Area and are planned to avoid scenic, recreational, historical, archeological, heavily timbered areas, steep slopes and proximity to highways as required in WAC 463-12-020(4).

XXIV.

That there is reasonable assurance that the project will be constructed and operated in a manner which will not violate applicable state water quality standards contained in chapter 372-12 WAC. These standards have been approved by the Environmental Protection Agency in accordance with 40 CFR 120, 36 FR 22489, November 25, 1971, and were determined to meet the criteria of § 10(c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1160(c)), so long as the project

is constructed and operated in accordance with the terms and conditions of the recommended Certification Agreement.

XXV.

That there is no evidence relating to matters within the Council's jurisdiction to indicate that significant adverse environmental impact is expected to result from the proposed construction and operation of this plant so long as such construction and operation is in accordance with the terms and conditions contained in the Certification Agreement recommended to the Governor.

CONCLUSIONS OF LAW

From the foregoing Findings of Fact the Council draws the following Conclusions of Law:

I.

The Council has jurisdiction of the subject matter and the parties to this proceeding pursuant to chapter 80.50 RCW.

II.

The Council through its actions and regulations regarding Rules of Practice, chapter 463-08 WAC, and Guidelines, chapter 463-12 WAC, has implemented the provisions of chapter 80.50 RCW so as to accomplish state government requirements for site certification through a single state agency.

III.

That as a result of a public hearing held during March, 1971, the Council did determine that the proposed site for the project does conform with existing land use

plans and zoning ordinances in effect at the date of the application. This determination applies equally to the revised site boundary which is described in Finding of Fact I, supra.

IV.

That the proposed location of the thermal power plant and the associated transmission line routes within the Hanford Operations Area in Benton County, Washington, as contained in the application, as amended, have been examined by an independent consultant's study and such study agrees with the conclusion reached by the Council that no significant adverse environmental impact is expected as the result of the construction and operation of the proposed power plant so long as such construction and operation are in accordance with the terms and conditions contained in the Certification Agreement recommended to the Governor.

V.

That the recommended Certification Agreement must include the following: (1) provisions containing the means for monitoring the plant effects upon the environment pursuant to RCW 80.50.040(11); (2) provisions concerning continuous consulting arrangements between Applicant and Council (Finding of Fact XII); (3) provisions for the examination by the Council of methods of implementing concepts described in the application (Finding of Fact XIII); and (4) provisions for an amendatory process as well as procedures for handling emergencies (Finding of Fact XIV and XV). These are required in order to be assured of continued compliance with the terms of certification and to

properly discharge the Council's duties for the duration of the project's proposed operation.

VI.

The Certification Agreement shall constitute "certification" by the State of Washington for the purposes of the Federal Water Quality Act, 33 U.S.C.A. § 1171(b)(1). The Certification Agreement shall contain authority for water withdrawal.

VII.

Other criteria specific to the site and transmission line routing have been developed during the course of processing this application and have been incorporated in the Certification Agreement recommended to the Governor.

VIII.

The Council has now completed a thorough and detailed review of the application, as amended, and other information relevant to the hearing proceedings. The Council can now report to the Governor its considered recommendation for disposition of this application.

O R D E R

The Council, therefore, pursuant to the provisions of chapter 80.50 RCW and the regulations promulgated pursuant thereto, hereby


Orders and decrees that the Council's Environmental Impact Statement is in compliance with the State Environmental Policy Act of 1971, chapter 109, Laws of 1971, 1st Ex. Sess.,

and is determined by the Council to be an approved report in satisfaction of said law;

That the terms and conditions represented in the Council's proposed Certification Agreement to the Governor are those supported by the files, record, and evidence compiled by the Council during the course of the processing of this application which ended in the final hearing during February, 1971; and

That approval of the Washington Public Power Supply System application No. 71-1 be recommended to the Governor, in accordance with RCW 80.50.100(1), with the further recommendation that such approval be subject to the terms and conditions of the Council's proposed Certification Agreement.

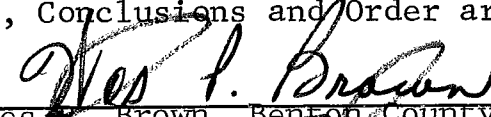
Signed and entered this 27th day of March, 1972.


Oswald H. Greager, Chairman

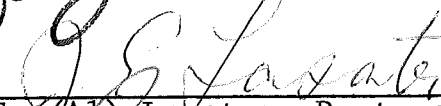
Approved as to Form:



Charles F. Murphy
Assistant Attorney General


The above Findings, Conclusions and Order are hereby approved.



Wes P. Brown, Benton County

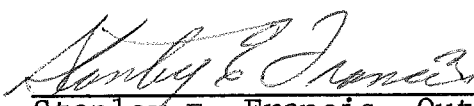

George Hansen, Department of Ecology


J. E. (Al) Lasater, Dept. of Fisheries


Ralph Larson, Department of Game


John A. Clark, Parks and Recreation

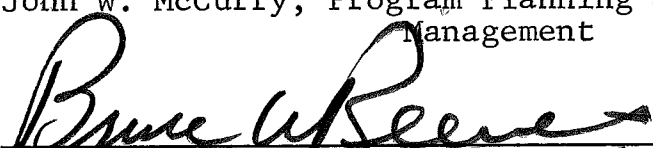

Arnold J. Moen, DSHS - Division of Health

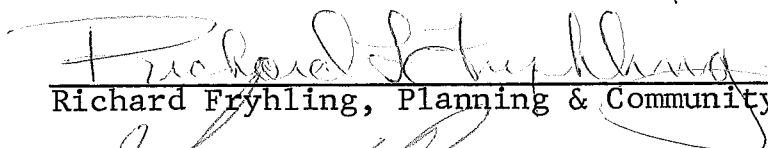

Stanley E. Francis, Outdoor Recreation

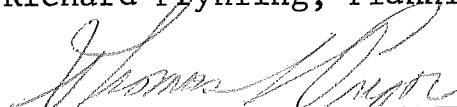

Lawrence B. Bradley, Dept. of Commerce and
Economic Development

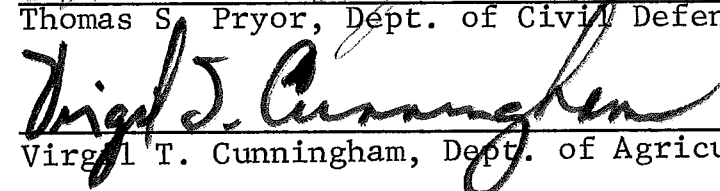

Donald H. Brazier, Utilities & Transportation


John W. McCurry, Program Planning and Fiscal
Management

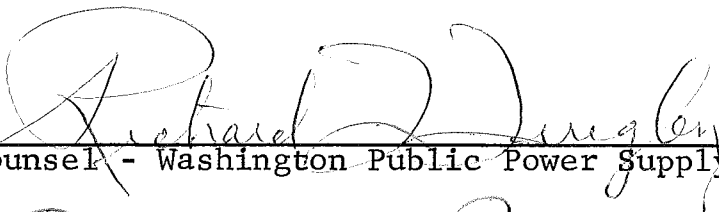

Bruce W. Reeves, Dept. of Natural Resources


Richard Fryhling, Planning & Community Affairs

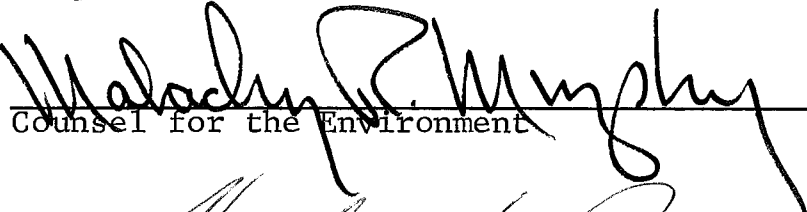

Thomas S. Pryor, Dept. of Civil Defense


Virgil T. Cunningham, Dept. of Agriculture

Copy Received:



Counsel - Washington Public Power Supply System


Of Counsel-Washington Public Power Supply System


Counsel for the Environment


Attorney for the Department of Natural Resources

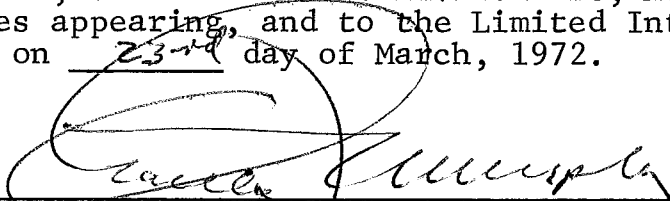

Attorney for the Department of Ecology


Attorney for the Department of Game and the
Department of Fisheries


Attorney for the Department of Social and Health
Services

CERTIFICATE OF MAILING

I certify that I mailed a copy of the foregoing document, to which this certificate is attached, to the attorneys of record of Applicant, Counsel for the Environment, Attorneys for State Agencies appearing, and to the Limited Intervenor, postage prepaid, on 23rd day of March, 1972.


Attorney for the Washington State Thermal Power
Plant Site Evaluation Council

BEFORE THE STATE OF WASHINGTON
THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Hanford
No. 2 Site Certification
Agreement Dated May 17, 1972

WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

A Municipal Corporation of
the State of Washington

FINDINGS OF FACT, CONCLUSIONS
OF LAW AND ORDER RE
CERTIFICATION AGREEMENT
AMENDMENT

1. HEARINGS AND APPEARANCES

1.1 Hearing Date. January 13, 1975

1.2 Notice of Hearing. Notice of hearing was published
on December 20, 1974.

1.3 Appearances. The Washington Public Power Supply
System as Applicant appeared through its counsel, Houghton Cluck
Coughlin & Riley, Joel Haggard. No members of the public appeared
to give testimony at the hearing; and no comments in writing had
been received by the Council prior to or at the hearing.

1.4 Purpose. To consider Applicant's proposed amendments
to Site Certification Agreement between the State of Washington and
the Washington Public Power Supply System for Section V.B.1, III.G.
4(a), III.G.4(b) and II.C.1 of the Hanford No. 2 Nuclear Electric
Generating Facility, Benton County, Washington dated May 17, 1972,
as such were petitioned by Applicant in a petition submitted to
the Council on December 16, 1974.

1.5 Evidence.

<u>Date</u>	<u>Description</u>
a) January 13, 1975	Minutes of TPPSEC, dated 12/9/74; Applicant's Exhibit No. 1.
b) January 13, 1975	Applicant's Declaration of Non-significance pursuant to RCW 43-21C; Applicant's Exhibit No. 2.
c) January 13, 1975	Schreiber, D.L., C.D. Becker, J.J. Fuquay, "Appraisal of Water Intake Systems on the Central Columbia River, "for the Washington Public Power Supply System by Battelle Memorial Institute, Richland, WA,, March 1973; Applicant's Exhibit No. 3.
d) January 13, 1975	Richards, R.T., "Intake for The Makeup Water Pumping System WPPSS Nuclear Project No. 2, "for the Washington Public Power Supply System by Burns & Roe, March 1973; Applicant's Exhibit No. 4.
e) January 13, 1975	WNP-2 Project Schedule Forecast; Applicant's Exhibit No. 5 (Corrected copy filed with TPPSEC 1/16/75).
f)	The Council also heard testimony from Mr. George Hansen, Chairman, Hanford No. 2 Intake and Discharge Committee, a special committee of the Council, and Mr. Harold W. Stivers, Supervising Engineer for WPPSS No. 2, WPPSS.

II. FINDINGS

The Council, having considered the evidence, record and the arguments of Counsel, finds:

2.1 Section VI.C1 of the May 17, 1972 Hanford No. 2 Site Certification Agreement (that agreement having been executed with WPPSS by the State of Washington pursuant to RCW 80.50 et seq.) provides for amendment to the agreement upon petition to the Council.

2.2 WPPSS petitioned the Council on December 16, 1974 for certain amendments to Sections V.B.I, III.G4(a), III.G.4(b), and II.C.1 of the Hanford No. 2 Site Certification Agreement.

2.3 Applicant intends to change the configuration on the end of the discharge pipe from a circular form to a flared tip configuration, having the approximate dimensions of 8" high and 32" wide.

2.4 The flared tip discharge pipe end configuration is inconsistent with commitments made by the Applicant as expressed in TPPSEC Application No. 71-1.

2.5 The flared tip discharge pipe end configuration is acceptable and preferable to utilization of alternative systems utilizing a multi-port diffuser or a floating discharge system configuration.

2.6 The flared tip discharge pipe end configuration is anticipated to cause less than three-tenths of an acre of Columbia River bottom in the area of the discharge to be effected by a temperature differential above ambient of 0.5°F or more; and less than one-tenth of an acre with a temperature differential above ambient of 2.5°F or more.

2.7 Use of the flared tip discharge pipe end configuration is anticipated to cause the Hanford No. 2 effluent to be inconsistent with applicable water quality standards in that portion of the receiving water located between the bed of the river and one foot off the bed and adjacent to the discharge mixing zone defined in Section IV. B.3.a of May 17, 1972 Site Certification Agreement.

2.8 Extending the vertical boundary of the mixing zone for the Hanford No. 2 discharge to the river bed from one foot off the bed will not significantly affect the benthos population in the receiving waters.

2.9 Applicant intends to change the intake system from the infiltration bed concept to a perforated pipe located off-shore and above the river bed concept.

2.10 The perforated pipe intake system is inconsistent with commitments made by the applicant in TPPSEC Application No. 71-1.

2.11 The proposed perforated pipe intake system will have the following design features.

a) The intake pipe will be located about 70 feet upstream of the discharge; and about 350 feet offshore from the low-water line.

b) No discharge water recirculation is anticipated at the intake due to the downstream direction of river flow and the river turbulence.

c) The intake system will be located as close to the plant as possible when accounting for the off-shore intake location, and for the protection of the plant from flooding.

d) The intake velocity, based upon the screen's effective area as measured $3/8$ " off the pipe end, is less than 0.5 fps under all flow conditions.

e) The intake screen will be fully submerged since it is to be located in water 5 feet deep at low water.

f) The effective velocity across the intake under design conditions is expected to be quite uniform.

g) No velocity cap as such is to be used since the vertical velocity component at the intake is to be less than 0.5 fps.

h) The external screen mesh size on the perforated pipe is about $3/8$ ".

i) There will be no chlorination at the intake.

j) The intake system will not have approach channels, sidewalls or curtain walls.

k) No ice control by recirculation of the discharge water is anticipated.

l) Negligible sonar noise due to pump noise is anticipated since the pump is to be located about 900

feet towards the plant from the intake pipe.

m) Council review of the intake system's specific location plans, drawings and construction contracts under the provisions of Section III.G.3 of the Site Certification Agreement are unchanged hereby.

n) Intake system construction constraints set out in Section III.G. of the Site Certification Agreement are unchanged hereby.

2.12 No salmonid spawning grounds are known to be located within the intake influence area.

2.13 Migration routes for anadromous fish favor the shore opposite the intake location.

2.14 Salmonid fry are not expected to be significantly present in the intake influence area; but Applicant intends to initiate fish impingement monitoring studies no later than intake pump startup.

2.15 The proposed perforated pipe intake system uses the best technology available.

2.16 Applicant no longer intends to construct an intake system channel as mentioned in Sections III.G.4.(a,b) of the Site Certification Agreement.

2.17 Fuel Loading for the Hanford No. 2 facility is now anticipated to occur during the fourth quarter of 1977.

III.

CONCLUSIONS OF LAW

3.1 The Council has jurisdiction over the petition by Applicant.

3.2 The proposed perforation pipe intake system's location, design, construction and capacity reflects the best technology available for minimizing adverse environmental impact.

3.3 The proposed changes to Sections V.B.1., III.G.4.(a), III.G.4.(b), and II.C.1 of the Site Certification Agreement are consistent with the Council's topical guidelines.

IV

ORDER

On the basis of the foregoing findings and conclusions and the record herein, the Council Orders that

4.1 The following changes to the May 17, 1972 Site Certification Agreement for the Hanford No. 2 Nuclear Electric Generating Facility, Benton County, Washington be recommended to the Governor:

a. Replace the last sentence of Section V.B. 1 in its entirety by the following:

"The Supply System agrees to begin the meteorological and environmental surveillance programs no later than two years prior to fuel loading; provided that fish impingement monitoring shall begin no later than intake pump startup."

b. Delete Section III.G.4.(a).

c. Replace Section III.G.4(b) in its entirety by the following:

"The Supply System shall schedule the construction of the intake structure in the portions of the river bed during the period after July 31 and before October 15. Any work at other times directly in the stream bed of the Columbia River shall require specific approval of the Council."

d. Amend Section II.C. 1 to read as follows:

"...commitments made by the Applicant expressed in its application, as amended, except as to commitments made for the design for the intake and discharge system, constitute the whole..."

4.2 The Council, subject to further processing of Applicant's NPDES Permit Application for Hanford No. 2, adopts the changing of the Hanford No. 2 mixing zone boundary by lowering the vertical Boundary to the river bed instead of terminating it one foot off the bed.

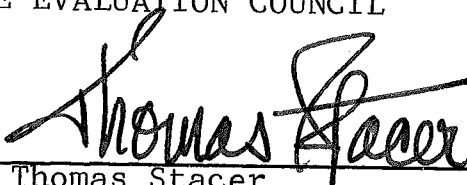
4.3 The recommendations noted herein shall be sent to the Governor by the Council when combined with any other recommended changes to the Site Certification Agreement necessary for Applicant's discharge, as such is identified in a public hearing to be held on Applicant's application for an NPDES permit.

ORDERED AND DECLARED by the Washington State Thermal
Power Plant Site Evaluation Council on February 18, 1975, in
open meeting.

ENTERED This 18th Day of February 1975

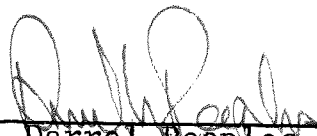
WASHINGTON STATE THERMAL POWER PLANT
SITE EVALUATION COUNCIL

By


Thomas Stacer
Acting Chairman

APPROVED FOR ENTRY:

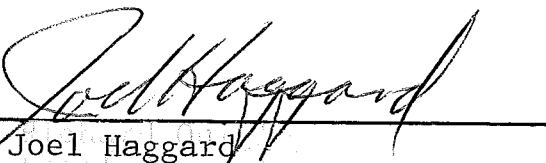
By


Darrel Peoples
Assistant Attorney General

APPROVED AS TO FORM
NOTICE OF PRESENTATION WAIVED:

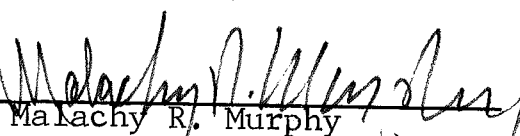
WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

By


Joel Haggard
Counsel

COUNSEL FOR THE ENVIRONMENT

By


Malachy R. Murphy
Deputy Attorney General

BEFORE THE STATE OF WASHINGTON
THERMAL POWER PLANT SITE EVALUATION COUNCIL

In The Matter of The Hanford
No. 2 Site Certification
Agreement Dated May 17, 1972

WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

A Municipal Corporation of
the State of Washington

ORDER APPOINTING A HEARING
EXAMINER AND ESTABLISHING
HIS FUNCTIONS AND AUTHORITY

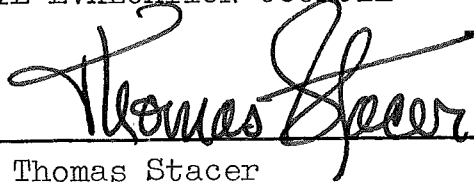
A Hearing Examiner shall be appointed by the Chairman for the purposes of conducting hearings under the provisions of chapter 24.04 RCW, WAC 1-08 and Rules of the Council and for the purposes of presiding as Hearing Officer at hearings required pursuant to chapter 80.50 RCW and Section VI of the Hanford No. 2 Nuclear Electric Generating Plant Site Certification Agreement on the subjects of Hanford No. 2 NPDES Permit, Section 401(a) FWPCA 1972 and state certification and associated and consequent changes to the above-referenced Site Certification Agreement.

ORDERED AND DECLARED BY THE WASHINGTON STATE THERMAL
POWER PLANT SITE EVALUATION COUNCIL February 24, 1975, in open
meeting.

ENTERED This 24th Day of February 1975

WASHINGTON STATE THERMAL POWER PLANT
SITE EVALUATION COUNCIL

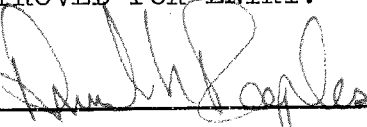
BY



Thomas Stacer
Acting Chairman

APPROVED FOR ENTRY:

BY

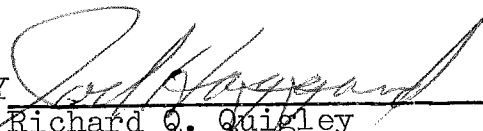


Darrel Peebles
Assistant Attorney General

APPROVED AS TO FORM
NOTICE OF PRESENTATION WAIVED:


WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

BY


Richard Q. Quigley
Counsel
attys for WPPSS

COUNSEL FOR THE ENVIRONMENT

BY


Malachy R. Murphy
Deputy Attorney General

BEFORE THE WASHINGTON STATE THERMAL POWER
PLANT SITE EVALUATION COUNCIL

In the Matter of)	
Applications 71-1 and)	
74-2 of the)	
)	
WASHINGTON PUBLIC POWER	)	FINDINGS OF FACT,
SUPPLY SYSTEM	)	CONCLUSIONS OF LAW,
	)	AND ORDER
)	
for NPDES permits, a)	
§401a certificate of compliance,)	
and modification of certain)	
portions of the Hanford No. 2)	
Site Certification Agreement.)	
.)	

This matter came on regularly for hearing at 10:00 a.m.,
March 6 and 7, 1975, at the City Hall, Richland, Washington, before
the following members of the Thermal Power Plant Site Evaluation
Council:

THOMAS STACER, Chairman	Utilities and Transportation Commission
ROBERT MOONEY	Department of Social and Health Services
FREDERICK HAHN	Department of Ecology
LAWRENCE BRADLEY	Department of Commerce and Economic Development
FREDERICK CLAGETT	Planning & Community Affairs Agency
WESLEY BROWN	Benton County
JOHN CLARK	State Parks & Recreation Commission
DAVID GUIER	Department of Emergency Services

RALPH LARSON

Department of Game

BRUCE REEVES

Department of Natural
Resources

CHARLES WOELKE

Department of Fisheries

and Legal Examiner John Von Reis.

The parties were represented as follows:

APPLICANT: WASHINGTON PUBLIC POWER SUPPLY SYSTEM
By Joel Haggard
Attorney at Law
900 Hoge Building
Seattle, Washington 98104

and

By Richard Quigley
Attorney at Law
3000 George Washington Way
Richland, Washington 99352

COUNCIL MEMBER AGENCIES:

DEPARTMENT OF ECOLOGY
By George Hansen
External Affairs Director
Olympia, Washington 98504

Mr. Darrel Peeples, Attorney for the Council, also
participated in the hearing.

Having examined the record and file in the matter and
having been advised thereof, the Council makes the following
findings of fact:

FINDINGS OF FACT

1. On May 17, 1972, pursuant to application 71-1, the

State of Washington and the Washington Public Power Supply System (hereinafter referred to as "WPPSS" or "the Supply System"), a municipal corporation of the State of Washington, entered into a site certification agreement setting forth conditions attendant upon the construction of WPPSS's (Hanford) Project No. 2, to be built on the then United States Atomic Energy reservation in Benton County, Washington. In part, this agreement specified facilities and limits for the discharge of pollutants from the Hanford Number 2 Project into the waters of the Columbia River. The project is to become operational during 1979.

2. The Supply System has requested the Council to recommend to the governor certification of sites on the Hanford Nuclear Reservation in Benton County, Washington, for construction of WPPSS's Nuclear Projects Numbers 1 and 4. These projects, to be located near the aforementioned site for Hanford Nuclear Project #2, would, if operational, result in the discharge of pollutants into the Columbia River by means of a single outfall.

3. On January 20, 1975, WPPSS applied to the Council for an NPDES permit authorizing it to discharge pollutants into the Columbia River at outfall 002, Latitude 46° 28' 17", longitude 119° 15' 45". WPPSS also requested certification that its discharges would be in compliance with Sections 301, 302, 306 and 307 of the Federal Water Pollution Control Act, which matter the Council has disposed of by previous agreement. On January 31, 1975, WPPSS requested that the Council recommend

modification of the May 17, 1972, Hanford No. 2 site certification agreement to eliminate provisions therein duplicative of or inconsistent with the terms of any NPDES permit issued for the project. The Federally drawn requirements which must be met before an NPDES discharge authorization permit may issue became effective after the May 17, 1972, agreement was drawn.

4. On May 29, 1974, WPPSS applied to the Council for an NPDES permit for its Nuclear Projects Nos. 1 & 4, which permit would authorize pollutant discharges into the Columbia River at outfall 001, latitude 46° 28' 23", longitude 119° 15' 50". Applicant also sought from the Council certification that its discharges would be in compliance with Sections 301, 302, 306 and 307 of the Federal Water Pollution Control Act.

5. On February 4, 1975, the Council published draft permits for Nuclear Projects Numbers 2 and 1 & 4, and made tentative determinations that it would approve NPDES permits as stated in the drafts.

6. On February 4, 1975, the Council consolidated the two matters mentioned in findings of fact three and four above, and set them for public hearing on March 6, 1975.

7. The parties to the March 6, 1975, public hearing stipulated that certain changes should be made in the Council's tentative draft NPDES permit for Project No. 2, issued February 4, 1975. The parties submitted the stipulations to the Council for

its consideration. The Council, in light of these stipulations, finds the following changes appropriate on the record of the proceedings:

a.) To clarify the functions of specified facilities, and to remove technical inaccuracies in the draft language, the following wording should be adopted as general condition 5 of any NPDES permit issued for Hanford Nuclear Project No. 2:

"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; liquids may be discharged only after sampling and analysis demonstrate that all applicable regulations are complied with. No other liquid radwaste shall be discharged."

b.) To specify circumstances upon which applicant would be permitted to discharge effluent from its liquid radwaste system, the following wording is appropriate as note 1 of portion 5B (pertaining to low volume waste sources) of any NPDES permit issuing for the aforementioned Project No. 2:

"Flow (GPD) (1) "

"Note (1): Permittee is allowed on an intermittent basis to discharge subject to the provisions of G.5 herein to a maximum of 285,000 GPD additional flow originating from the liquid radwaste treatment system."

c.) To assure the accuracy and completeness of discharge monitoring reports, the time stated in general condition 15 by which applicant must submit these reports should in all instances be changed to 28 days.

d.) Permitting applicant to discharge such amounts of the following pollutants as may be necessary in its operations and in keeping with good standards of stewardship consistent with applicable Federal and state requirements standards:

- a. Acids and caustics when used for pH control;
- b. Material occurring in the air which when entrained in the cooling tower gets washed out of the air and added to the coolant:
- c. Biological materials from the recirculated water system;

- d. Materials naturally occurring in the water supply which are concentrated as a result of the cooling tower operation;
- e. Oil and grease originating in the recirculated cooling water blowdown, and
- f. Materials resulting from plant chemistry effects upon plant materials.

8. The parties to the March 6, 1975, public hearing stipulated that certain changes should be made in the Council's tentative draft NPDES permit for Projects Nos. 1 & 4 issued February 4, 1975. The parties submitted the stipulations to the Council for its consideration. The Council, in light of these stipulations, finds the following changes appropriate on the record of the proceeding:

a.) To clarify the functions of specified facilities and to remove technical inaccuracies in the draft language, the following wording should be adopted as general condition 5 of any NPDES permit issued for WPPSS Nuclear Projects Nos. 1 & 4.

"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; liquids may be discharged only after sampling and analysis demonstrate that all applicable regulations are complied with. No other liquid radwaste shall be discharged."

b.) To specify circumstances upon which applicant would be permitted to discharge effluent from its liquid radwaste system, the following wording is appropriate as note 1 of portion 5B (pertaining to low volume waste sources) of any NPDES permit issuing for the aforementioned WPPSS Projects Nos. 1 & 4.

"flow (GPD) (3) "

"Note (3): Permittee is allowed on an intermittent basis to discharge subject to the provisions of G.5 herein to a maximum of 108,000 GPD additional flow originating from the liquid radwaste treatment system."

c.) To assure the accuracy and completeness of discharge monitoring reports, the time stated in general condition 15 by which applicant must submit these reports should in all instances be changed to 28 days.

d.) Permitting applicant to discharge such amounts of the following pollutants as may be necessary in its operations and in keeping with good standards of stewardship consistent with applicable Federal and state requirements standards:

- a. Acids and caustics when used for pH control and for metal cleaning;
- b. Material occurring in the air which when entrained in the cooling tower gets washed out of the air and added to the coolant;
- c. Biological materials from the recirculated water system;
- d. Materials naturally occurring in the water supply which are concentrated as a result of the cooling tower operation;
- e. Oil and grease originating in the recirculated cooling water blowdown, and
- f. Materials resulting from plant chemistry effects upon plant materials.

9. Mr. William Waddell, environmental engineer with the supply system, described generally the No. 2 Project's discharge system, the discharge outfall's configuration in the river from the initial point 225 feet off the river's west bank between river miles 351 and 352, and the river's characteristics in the region of the proposed discharge point. The discharge point was chosen to provide a 5 foot water cover over the discharge point at 36,000 cfs minimum flow.

Mr. Waddel also described the discharge system, the outfall configuration in the river, and the river characteristics in the vicinity of the discharge for WPPSS Projects Nos. 1 & 4. The No. 1 & 4 discharge will be located approximately 600 feet upriver from the Number 2 discharge point. The No. 1 & 4 outfall will be located approximately 125 feet off the river's west bank at a site chosen pursuant to criteria similar to those applied to the No. 2 outfall site selection. River characteristics at the two sites are essentially constant.

10. Mr. Richard R. Stickney, WPPSS nuclear engineer, identified materials to be passed out as part of the No. 2 Project's discharge flows, including those items identified in finding of fact 7d above. WPPSS needs authority to discharge all materials listed in finding 7d above in order to operate Project No. 2.

The operation of Project No. 2 will necessitate discharge, on an intermittent basis, of up to 285,000 GPD additional flow from the liquid radwaste treatment system. Applicant states it will

make such discharges only in accordance with conditions noted in Finding of Fact 7a above.

Mr. James Hanlon, nuclear engineer with the Supply System, identified those materials to be discharged in the No. 1 & 4 flows, including those materials listed in Finding of Fact 8d above. To operate Projects Nos. 1 & 4, WPPSS needs authority to discharge all materials listed in that finding. The operation of Projects Nos. 1 & 4 will also necessitate intermittent discharges of up to 108,000 GPD additional flow from the liquid radwaste system, which flows applicant states it will allow only in accordance with conditions stated in Finding of Fact 8a above.

11. Mr. LaVerle Coleman, supervisor of health physics and chemistry at the Supply System, described the chlorination systems to be used to control biological growth in the No. 2 and 1 & 4 Projects system. Unchecked biological growths would restrict and alter heat transfers in the main condenser tubes, restrict process flows, induce corrosion, restrict cooling tower water flow, and cause other difficulties in plant operation. Chlorination is the most appropriate technique for controlling biological growth in a system of the type applicant proposes. A system of the type designed by applicant does not permit discharge of all residual chlorine in its cooling system within 2 hours.

12. Mr. George Fry, Environmental Engineer for United Engineers and Constructors, discussed the reasons applicant seeks a waiver of EPA chlorine limitations. The EPA chlorine

discharge standards, which permit massive discharges for 2 hours in any 24-hour period and no discharge for the remaining 22 hours, are appropriate for a "once-through" cooling system, but are not compatible with a recirculating water cooling system such as that applicant proposes for its Project No. 2. The incompatibility results from the large volume of water chlorinated in a recirculated cooling system. The volume cannot be discharged during the time set in the EPA standards.

13. Mr. Orville Trapp, a mechanical engineer who serves as the Supply System's manager of engineering, discussed operable chlorine discharge limits for Project No. 2 and for Projects Nos. 1 and 4. Mr. Trapp's testimony supports the finding here made that operation of each of the three proposed plants is incompatible with a chlorine limitation allowing discharge during only 2 hours of any 24.

Mr. Trapp also presented a significant variation WPPSS proposes in measuring chlorine discharge limits for the three plants. While the Council in its draft called for an absolute limit in terms of pounds per day, the Supply System suggests a limit, .1 part per million, based on chlorine concentration in water. Two factors, the recirculatory systems' multimillion gallon capacities and the enormous dissolution potential in the receiving waters of the Columbia, will combine to minimize the chlorine's impact on aquatic biota.

Applicant proposes to inject chlorine into its plant recirculating systems at rates significantly higher than .1 part per million, but also to withhold chlorine discharges to the river for a sufficient period after injection (usually 3 to 5 hours) to permit the chlorine to decay to the .1 part per million level suggested. The discharge from Project No. 2 and the combined discharge from Projects Nos. 1 and 4 will each occur in concentrations not to exceed .1 part per million for approximately 20 hours out of each 24 hour period. A .1 part per million concentration implies a 28-1/2 pound chlorine concentration in the recirculating system.

14. Mr. William Waddel, WPPSS engineer, described the projected dissipation in the Columbia River of the No. 2 Project's discharged heat and chemicals. Chlorine in the mixing zone downstream from the discharge diffuser would be diluted to a concentration of .02 ppm within approximately seven seconds and 22 feet, assuming low flow river conditions of 36,000 cfs and a .1 ppm chlorine concentration at the discharge point, and no chlorine demand from the river. Under the same assumptions, the chlorine concentration at 120 seconds and 300 feet downstream from the discharge point would be approximately .001 part per million.

Assuming a 36,000 cfs minimum river flow, maximum blowdown discharge and a 25°F maximum temperature differential between the Project No. 2 plume and river temperature at the discharge point, the temperature differential in the mixing zone

20 seconds and 50 feet downstream from discharge would be approximately 3° F. At 120 seconds and 300 feet, the differential would be less than .5° F.

Miss Sharon Engstrom, WPPSS environmental engineer, described the anticipated dissipation of the No. 1 & 4 Projects' discharged heat and chemicals in the Columbia River. In the downstream mixing zone, chlorine would be diluted to a concentration of .02 parts per million within approximately 7 seconds and 22 feet assuming the above stated low flow and initial chlorine concentration conditions. At the mixing zone's edge, 120 seconds and 300 feet downstream, the chlorine concentration would be undetectable.

Assuming the same low flow conditions, together with maximum blowdown discharge and a 27° F. temperature differential at the initial discharge point, the differential 30 seconds and 75 feet downstream would be approximately 2° F., while at 120 seconds and 300 feet, the differential would be less than 1° F.

The effect of the No. 1 & 4 thermal plume on river temperature at the point of initial discharge for No. 2 would be less than 0.1° F.

The mixing zones herein discussed conforms with those defined in the Council's February 4, 1975, draft permits. Other materials discharged would be diluted in the mixing zones in a manner similar to that described for chlorine.

15. Dr. Roy E. Nakatani, Professor of Fisheries at the University of Washington and a consultant to the Supply System, testifies as to the impact of discharged materials from the three projects on aquatic biota in the Columbia River. No acute biological shock upon fish on a population basis can reasonably be expected as a result of heat or materials discharged into the mixing zones, though the mixing zones would become less effective rearing areas, and small numbers of individual kills, especially of benthic organisms, might result. Minimal damage to the river's ecosystem outside the mixing zones will result from the proposed project. Strictures contained in the Council's February 4, 1975, draft permit, as modified by proposals noted and described in the above findings, are sufficient to insure the maintenance on a population basis of Columbia River biota in the areas of influence of Project No. 2 and Projects Nos. 1 and 4.

16. Applicant has demonstrated that its proposed No. 2 and 1 & 4 steam electric power generating units cannot operate at a level of chlorination consonant with a discharge during only two hours of any day. Residual chlorine discharge from Project No. 2 and from Projects Nos. 1 & 4 satisfy the Council's limits and concerns only if discharges are made in accordance with the following limitations, which limitations are found appropriate for the projects' discharges:

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. Chlorine measurement for compliance purposes is to be made at the unit being chlorinated. Sampling is to be performed on a grab basis for both projects.

17. NPDES permits issued by the Council in the form of the Council's aforementioned February 4, 1975, draft permits as for Project No. 2 and Projects Nos. 1 & 4 modified only by those changes proposed by applicant which have been hereinabove found appropriate for the respective plants, issued for a period of not to exceed five years from the date of issuance, establish conditions on discharges adequate for compliances with the requirements of 33 U.S.C. §1342.

18. The Council's February 4, 1975, draft permits, as modified by applicant's proposed changes hereinabove found appropriate, said changes being within the Council's power to make, insure that operation of the Project No. 2 and Projects Nos. 1 & 4 will be in compliance with requirements of Sections 301, 302, 306 and 307 of the Federal Water Pollution Control Act.

19. The following changes should be made in the May 17, 1972, certification agreement between the State of Washington and the Washington Public Power Supply system regarding the construction of Hanford Project No. 2:

- a. Add to Section III. H. of the Agreement:
"The outfall shall include features as required to achieve dilution within the limits prescribed in General Condition 4 of the attached NPDES permit";
- b. Replace Section IV. B. in its entirety by the following: "Discharge to the Columbia River shall be done in accordance with the terms and conditions of a valid NPDES permit, which permit is attached hereto. See attachment."

From the foregoing findings of fact, the Council makes the following conclusions of law:

CONCLUSIONS OF LAW

1. The Washington State Thermal Power Plant Site Evaluation Council has jurisdiction over the persons and the subject matter of this proceeding.
2. The Council may properly issue applicant an NPDES permit in the form of the Council's February 4, 1975, draft permit for the project as modified by the above findings of fact in the manner shown in Appendix A attached hereto for applicant's Hanford No. 2 Project. Such permit will issue for a period not to exceed five years from date of issuance.

3. The Council may properly issue applicant an NPDES permit in the form of the Council's February 4, 1975, draft permit for the project as modified by the above findings of fact in the manner shown in Appendix B attached hereto for Applicant's WPPSS Nos. 1 & 4 Projects. Such permit will issue for a period not to exceed five years from date of issuance.

4. Discharges made pursuant to permits described in Conclusions of Law 2 and 3 above will be in compliance with applicable Federal and state statutes and regulations.

5. The Council may properly issue a certificate stating that any discharges made from applicant's WPPSS Nos. 1 & 4 projects will comply with applicable provisions of 33 U.S.C. 1311, 1312, 1316, and 1317.

6. The Council may properly recommend to the Governor that certain alterations and amendments, as noted in Appendix C attached hereto, be made in the May 17, 1972, Hanford Project No. 2 Site Certification Agreement entered into between the State of Washington and the Washington Public Power Supply System.

From the foregoing findings of fact and conclusions of law, the Council makes the following order:

O R D E R

IT IS, THEREFORE, ORDERED That the application of the Washington Public Power Supply System for an NPDES permit authorizing the discharge of pollutants from its Hanford No. 2 Project be, and the same is hereby, granted on conditions as noted in the permit set forth in Appendix A attached hereto and by this reference made a part hereof.

IT IS FURTHER ORDERED That the application of the Washington Public Power Supply System for an NPDES permit authorizing the discharge of pollutants from its WPPSS Nos. 1 and 4 Projects be, and the same is hereby, granted on conditions as noted in the permit set forth in Appendix B attached hereto and by this reference made a part hereof.

IT IS FURTHER ORDERED That a certificate issue pursuant to 33 USC §1341 stating and affirming that conditions in the NPDES permit now issued for WPPSS Projects Nos. 1 and 4 insure that any discharges made from those two projects will be in compliance with 33 USC §1311, 1312, 1316 and 1317.

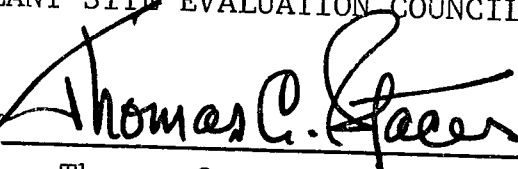
IT IS FURTHER ORDERED That a recommendation be forwarded to the Governor that certain alterations and amendments, as set forth in Appendix C attached hereto and by this reference included as a part hereof, be made to the May 17, 1972, Site Certification

Agreement for the Hanford No. 2 Nuclear Project entered into
between the State of Washington and the Washington Public Power
Supply System.

ENTERED THIS 28TH DAY OF APRIL 1975

WASHINGTON STATE THERMAL POWER
PLANT SITE EVALUATION COUNCIL

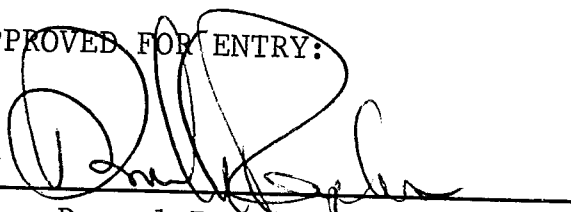
BY



Thomas C. Stacer
Acting Chairman

APPROVED FOR ENTRY:

BY



Darrel Peeples
Assistant Attorney General

NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM WASTE DISCHARGE PERMIT

State of Washington
Thermal Power Plant Site Evaluation Council
Olympia, Washington 98504

In Compliance With the Provisions of
Chapter 155, Laws of 1973, (RCW 90.48) as amended

and

The Federal Water Pollution Control Act Amendment of 1972,
Public Law 92-500

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

Plant Location:

Section 5, T.11N, R28E W.M.
North of Richland
Benton County, Washington

Receiving Water:

Columbia River

Discharge Location:

Outfall 001

Latitude: 46°28'17"

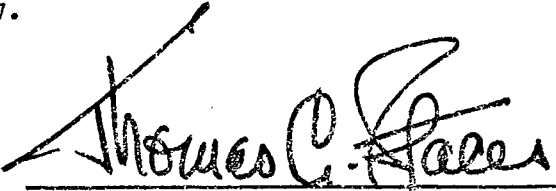
Longitude: 119°15'45"

Industry Type: Nuclear Steam
Electric Generating Plant
(Hanford No. 2)

Water Segment No.: 26-03-00

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

Approved: April 28, 1975


Acting Chairman
Thermal Power Plant Site
Evaluation Council

SPECIAL CONDITIONS

S.1 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>	
	<u>Daily Maximum</u>	<u>Daily Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total Suspended Solids (lb/day)	34	5	3 times per week	Grab
pH	Between 6.5 and 8.5 at all times		3 times per week	Grab
Oil and Grease (lb/day)	7	2.5	Weekly	Grab
Flow (GPD)(1)	40,000	20,000	Each Discharge	Log tank contents prior to discharge.

Compliance with these limitations shall be determined by monitoring all low volume waste sources prior to their confluence with the recirculated cooling water.

Note (1) : Permittee is allowed on an intermittent basis to discharge subject to the provisions of G.5 herein to a maximum of 285,000 GPD additional flow originating from the liquid radwaste treatment system.

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 (3)			Continuous	Instantaneous
Total Residual Chlorine (mg/l)	0.1 mg/l ⁽¹⁾			Continuous ⁽⁴⁾	Grab
pH	Between 6.5 and 8.5 at all times			Continuous ⁽²⁾	Instantaneous
Flow (GPD)	9.4×10^6	9.4×10^6		Continuous	Instantaneous
Note (1)	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. For compliance chlorine will be measured at the unit being chlorinated.				
Note (2)	Permittee shall include an alarm system for the pH control to provide an indication of any variance from established limits.				
Note (3)	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.				
Note (4)	Continuous recording of total residual chlorine during periods of active chlorination and for 2 hours after recommencing discharge or until chlorine residual reaches an undetectable level.				

GENERAL CONDITIONS

- G1. No discharge of polychlorinated biphenyl, such as transformer fluid, is permitted.
- G2. 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 raw water supply, (2) entrained from the atmosphere, or (3) quantitatively and qualitatively 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 waste water 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.
- G3. The effluent limitation for the total combined flow discharged from outfall No. 001 for any particular pollutant, excluding pH, shall be the sum of the amounts for each contributing inplant stream as authorized by the special or general conditions of this permit.
- G4. 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:
- a) The boundaries in the vertical plane shall extend from the receiving water surface to the riverbed;
 - b) The upstream and downstream boundaries shall be 50 feet and 300 feet, respectively, from the center line of the outfall; and
 - c) The lateral boundaries shall be separated by 100 feet.
- G5. 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; liquids may be discharged only after sampling and analysis demonstrate that all applicable regulations are complied with at the holding facilities. No other liquid radwaste shall be discharged.

- G6. The permittee shall provide an adequate operating staff which is qualified and shall carry out the operation, maintenance, and testing activities required to insure compliance with the conditions of this permit.
- G7. 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.
- G8. Whenever a facility expansion, production increase, or process modification is anticipated which will result in a new or increased discharge, or which will cause any of the conditions of this permit to be exceeded, a new NPDES application must be submitted together with the necessary reports and engineering plans for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued. If such changes will not violate the effluent limitations specified in this permit, permittee shall notify the Council of such changes prior to such facility expansion, production increase or process modification.
- G9. If the 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 Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified.
- G10. If, for any reason, the permittee does not comply with or will not be able to comply with, any daily maximum effluent limitation specified in this permit, the permittee shall provide the Council with the following information, in writing, within five (5) days of becoming aware of such condition:
 - a. A description of the discharge and cause of noncompliance; and

- b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.
- G11. The permittee shall at all times maintain in good working order and efficiently operate all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- G12. The diversion from or bypass of any discharge from facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except (a) where unavoidable to prevent loss of life or severe property damage, or (b) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this permit. The permittee shall promptly notify the Council in writing of each such diversion or bypass in accordance with the procedure specified in condition G-13.
- G13. In the event the permittee is unable to comply with any of the conditions of this permit because of a breakdown of waste treatment, equipment or facilities, an accident caused by human error or negligence, electrical power failure, or any other cause, including acts of nature, the permittee shall:
 - a. Immediately take action to stop, contain, and clean up the unauthorized discharge and correct the problems.
 - b. As soon as reasonably practicable, notify the Council so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.
 - c. Promptly submit a detailed written report to the Council describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent recurrence, and any other pertinent information.

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

- G14. Permittee shall install an alternative electric power source capable of operating any electrically powered pollution control facilities; or, alternatively, permittee shall certify to the Council that the terms and conditions of this permit will be met in case of a loss of primary power to the pollution control equipment by controlling production.

Monitoring

- G15. Permittee shall comply with the Monitoring Program requirements set forth herein.

Monitoring results for the previous quarter shall be summarized on a monthly basis and reported on a Discharge Monitoring Report Form (EPA 3320-1), postmarked no later than the 28th day of the month following the end of the quarter. The first report is due by the 28th day of the first month following the end of the quarter in which the first discharge under this permit occurs. Duplicate signed copies of these, and all other reports required herein, shall be submitted to EPA and the Council at the following addresses:

U.S. EPA Region X
1200 6th Avenue
Seattle, WA 98101
Attention:
Permits Branch M/S 521

TPPSEC
Attention:
Executive Secretary
820 East 5th Avenue
Olympia, WA 98504

- G16. 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, record of analysis 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. All samples and measurements made under said program shall be representative of the volume and nature of the monitored discharge.
- G17. 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.

G18. As used in this permit, the following terms are as defined herein:

- a. The "daily maximum" discharge means the total discharge by weight during any calendar day.
- b. The "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the respective discharges occur. Where less than daily samplings 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.
- c. "Composite sample" is a sample consisting of a minimum of six grab samples collected 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.
- d. "Grab sample" is an individual sample collected in a period of less than 15 minutes.

G19. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall conform to regulations published pursuant to Section 304g of the Federal Act, or if there is no applicable procedure, shall conform to the latest edition of the following references:

- 1) American Public Health Association, Standard Methods for the Examination of Water and Wastewaters.
- 2) American Society for Testing and Materials, A.S.T.M. Standards, part 23, Water, Atmospheric Analysis.
- 3) Environmental Protection Agency, Water Quality Office Analytical Control Laboratory, Methods for Chemicals Analysis of Water and Wastes.

Alternative methods may be utilized if approval pursuant to 40 CFR 136 or as amended is received by the permittee. The Council shall be notified of each such alternative method approved for use.

G20. Except for data determined confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Council and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making a false statement on any such

report may result in the imposition of criminal penalties as provided in Section 309 of the Act.

Other Provisions

- G21. After notice and opportunity for a hearing this permit may be modified, suspended or revoked in whole or in part during its term for cause including but not limited to the following:
- a. Violation of any terms or conditions of this permit;
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
 - c. A change in conditions of the receiving waters that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- G22. The permittee shall, at all reasonable times, allow authorized representatives of the Council upon the presentation of credentials:
- a. To enter upon the permittee's premises for the purpose of inspecting and investigating conditions relating to the pollution of, or possible pollution of any of the waters of the state, or for the purpose of investigating compliance with any of the terms of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit;
 - c. To inspect any monitoring equipment or monitoring method required by this permit; or
 - d. To sample any discharge of pollutants.
- G23. Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable Federal, State or local statutes, ordinances, or regulations.
- G24. 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.

NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM WASTE DISCHARGE PERMIT

State of Washington
Thermal Power Plant Site Evaluation Council
Olympia, Washington 98504

In Compliance With the Provisions of
Chapter 155, Laws of 1973, (RCW 90.48) as amended

and

The Federal Water Pollution Control Act Amendment of 1972,
Public Law 92-500

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

Plant Location:
Section 3, 4, T.11N; Secs. 33,
34, T12N: R28E W.M.
North of Richland
Benton County, Washington

Receiving Water:
Columbia River

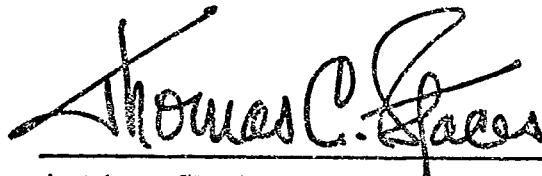
Discharge location:
Outfall 001
Latitude: 46°28'23"
Longitude: 119°15'50"

Industry Type: Nuclear Steam
Electric Generating Plant
(WPPSS Nos. 1 & 4)

Water Segment No.:
26-03-00

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

Approved: April 28, 1975



Acting Chairman
Thermal Power Plant Site
Evaluation Council

SPECIAL CONDITIONS

S.1 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 PER UNIT

<u>PARAMETER</u>	<u>EFFLUENT LIMITATIONS</u>		<u>MONITORING REQUIREMENTS (2)</u>	
	<u>Daily Maximum</u>	<u>Daily Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total suspended Solids (lb/day)	241	44	3 times per week	Grab
pH	Between 6.5 and 8.5 at all times		3 times per week	Grab
Oil and Grease (lb/day)	49	22	Weekly	Grab
Flow (GPD) (3)	2.88 x 10 ⁵	1.73 x 10 ⁵	Log tank contents (1) prior to discharge	N/A

- Note (1) Permittee shall discharge from this source on an intermittent basis.
- Note (2) Permittee shall monitor the effluent from the non-radwaste water treatment and liquid radwaste treatment system prior to confluence with cooling tower blowdown.
- Note (3) Permittee is allowed on an intermittent basis to discharge subject to the provisions of G5. herein to a maximum of 108,000 GPD additional flow originating from the liquid radwaste treatment systems.

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

<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 (3)			Continuous	Instantaneous
Total Residual Chlorine (mg/l)	Note (2) 0.1 mg/l			Continuous (4)	Grab
pH	Between 6.5 and 8.5 at all times			Continuous ⁽¹⁾	Instantaneous
Flow (GPD)	1.08×10^7	5.47×10^6		Continuous	Instantaneous

Note (1) Permittee shall include an alarm system for the pH control to provide an indication of any variance from established limits.

Note (2) Upon initiating chlorination of a unit, permittee shall terminate all discharges from the recirculating water system to the receiving water from the unit and not discharge from that unit until the total residual chlorine concentration has been at or below 0.1 mg/l for 15 minutes. For compliance chlorine will be measured at the unit being chlorinated.

Note (3) 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.

Note (4) Continuous recording of total residual chlorine during periods of active chlorination and for 2 hours after recommencing discharge or until chlorine residual reaches an undetectable level.

C. METAL CLEANING WASTES PORTION OF DISCHARGE SERIAL NUMBER 001 PER UNIT

<u>PARAMETER</u>	<u>EFFLUENT LIMITATIONS (1)</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Daily Maximum</u>	<u>Daily Average</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total Iron (lb/day)	2.4	0.84	3 times per day when discharging	Grab
Total Suspended Solids (lb/day)	240	25	3 times per day when discharging	Grab
pH	Between 6.5 and 8.5 at all times		3 times per day when discharging	Grab
Oil and Grease (lb/day)	48	12.6	3 times per day when discharging	Grab
Flow (GPD)	2.9×10^5	1×10^5	Calculated total volume	N/A

Note (1) The daily maximum values indicated are permitted for one time only and provided the discharges are limited to one unit at a time.

D. BOILER BLOWDOWN OF DISCHARGE SERIAL NUMBER 001 PER UNIT

<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>
Total Iron (lb/day)	2.1×10^{-4}	2.1×10^{-4}	When discharging	Grab
Total Suspended Solids (lb/day)	2.1×10^{-2}	6.3×10^{-3}	When discharging	Grab
pH	Between 6.5 and 8.5 at all times		When discharging	Grab
Oil and Grease (lb/day)	4.2×10^{-3}	3.2×10^{-3}	When discharging	Grab
Flow (GPD)	25(1)	25	Once a week during plant shutdown	Grab

Note (1) Intermittent discharge contribution during startup, a 30 second discharge once a week at a flow of 50 gpm.

GENERAL CONDITIONS

- G1. No discharge of polychlorinated biphenyl, such as transformer fluid, is permitted.
- G2. 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 raw water supply, (2) entrained from the atmosphere, or (3) quantitatively and qualitatively 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 waste water 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.
- G3. The effluent limitation for the total combined flow discharged from outfall No. 001 for any particular pollutant, excluding pH, shall be the sum of the amounts for each contributing inplant stream as authorized by the special or general conditions of this permit.
- G4. 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:
- a. The boundaries in the vertical plane shall extend from the receiving water surface to the riverbed;
 - b. The upstream and downstream boundaries shall be 50 feet and 300 feet, respectively, from the center line of the outfall; and
 - c. The lateral boundaries shall be separated by 100 feet.

- G5. 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.
- G6. The permittee shall provide an adequate operating staff which is qualified and shall carry out the operation, maintenance, and testing activities required to insure compliance with the conditions of this permit.
- G7. 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.
- G8. Whenever a facility expansion, production increase, or process modification is anticipated which will result in a new or increased discharge, or which will cause any of the conditions of this permit to be exceeded, a new NPDES application must be submitted together with the necessary reports and engineering plans for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued. If such changes will not violate the effluent limitations specified in this permit, permittee shall notify the Council of such changes prior to such facility expansion, production increase or process modification.
- G9. If the 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 Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified.

- G10. If, for any reason, the permittee does not comply with or will not be able to comply with, any daily maximum effluent limitation specified in this permit, the permittee shall provide the Council with the following information, in writing, within five (5) days of becoming aware of such condition:
- a. A description of the discharge and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
- G11. The permittee shall at all times maintain in good working order and efficiently operate all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- G12. The diversion from or bypass of any discharge from facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except (a) where unavoidable to prevent loss of life or severe property damage, or (b) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this permit. The permittee shall promptly notify the Council in writing of each such diversion or bypass in accordance with the procedure specified in condition G13.
- G13. In the event the permittee is unable to comply with any of the conditions of this permit because of a breakdown of waste treatment, equipment or facilities, an accident caused by human error or negligence, electrical power failure, or any other cause, including acts of nature, the permittee shall:
- a. Immediately take action to stop, contain, and clean up the unauthorized discharge and correct the problems.
 - b. As soon as reasonably practicable notify the Council so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.

- c. Promptly submit detailed written report to the Council describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken 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 conditions of this permit or the resulting liability for failure to comply.

- G14. Permittee shall install an alternative electric power source capable of operating any electrically powered pollution control facilities; or, alternatively, permittee shall certify to the Council that the terms and conditions of this permit will be met in case of a loss of primary power to the pollution control equipment by controlling production.

Monitoring

- G15. Permittee shall comply with the Monitoring Program requirements set forth herein.

Monitoring results for the previous quarter shall be summarized on a monthly basis and reported on a Discharge Monitoring Report Form (EPA 3320-1), postmarked no later than the 28th day of the month following the end of the quarter. The first report is due by the 28th day of the first month following the end of the quarter in which the first discharge under this permit occurs. Duplicate signed copies of these, and all other reports required herein, shall be submitted to EPA and the Council at the following addresses:

U.S. EPA Region X
1200 6th Avenue
Seattle, WA 98101
Attention:
Permits Branch M/S 521

TPPSEC
Attention:
Executive Secretary
820 East 5th Avenue
Olympia, WA 98504

- G16. 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, record of analysis 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. All samples and measurements made under said program shall be representative of the volume and nature of the monitored discharge.

- G17. 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.
- G18. As used in this permit, the following terms are as defined herein:
- a. The "daily maximum" discharge means the total discharge by weight during any calendar day.
 - b. The "daily average" discharge means the total discharge by weight 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.
 - c. "Composite sample" is a sample consisting of a minimum of six grab samples collected 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.
 - d. "Grab sample" is an individual sample collected in a period of less than 15 minutes.
- G19. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall conform to regulations published pursuant to Section 304g of the Federal Act, or if there is no applicable procedure, shall conform to the latest edition of the following references:
- a. American Public Health Association, Standard Methods for the Examination of Water and Wastewaters.
 - b. American Society for Testing and Materials, A.S.T.M. Standards, part 23, Water, Atmospheric Analysis.
 - c. Environmental Protection Agency, Water Quality Office Analytical Control Laboratory, Methods for Chemicals Analysis of Water and Wastes.

Alternative methods may be utilized if approved pursuant to 40 CFR 136 or as amended is received by permittee. The Council shall be notified of each such alternative method approved for use.

- G20. Except for data determined confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Council and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making a false statement on any such report may result in the imposition of criminal penalties as provided in Section 309 of the Act.

Other Provisions

- G21. After notice and opportunity for a hearing this permit may be modified, suspended or revoked in whole or in part during its term for cause including but not limited to the following:
- a. Violation of any terms or conditions of this permit;
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
 - c. A change in conditions of the receiving waters that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- G22. The permittee shall, at all reasonable times, allow authorized representatives of the Council upon the presentation of credentials:
- a. To enter upon the permittee's premises for the purpose of inspecting and investigating conditions relating to the pollution of, or possible pollution of any of the waters of the State, or for the purpose of investigating compliance with any of the terms of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit;
 - c. To inspect any monitoring equipment or monitoring method required by this permit; or
 - d. To sample any discharge of pollutants.

- G23. Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable Federal, State or local statutes, ordinances, or regulations.
- G24. 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.

APPENDIX C

The following changes should be made in the May 17, 1972, certification agreement between the State of Washington and the Washington Public Power Supply system regarding the Construction of Hanford Project No. 2:

a. Add to Section III. H of the Agreement:

"The outfall shall include features as required to achieve dilution within the limits prescribed in General Condition 4 of the attached NPDES permit";

b. Replace Section IV. B. in its entirety by the following: "Discharge to the Columbia River shall be done in accordance with the terms and conditions of a valid NPDES permit, which permit is attached hereto. See attachment".