BEFORE THE WASHINGTON STATE

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of Application No. 74-1 of PUGET SOUND POWER & LIGHT COMPANY a Corporation of the State of Washington	COUNCIL ORDER AFFIRMING AND ADOPTING EXAMINER'S PROPOSED ORDER GRANTING MOTION TO CORRECT TRANSCRIPT, IN PART (NPDES PORTION)

On August 29, 1975, Applicant filed in this matter a Motion to Correct Transcript concerning the entire transcript of public hearings held between April 28 and July 10, 1975, inclusive.

Subsequently, on November 12, 1975, Examiner C. Robert Wallis issued an Examiner's Proposed Order Granting Motion to Correct Transcript, In Part (NPDES Portion), and caused the same to be served upon all parties of record herein. Ten days having passed since the issuance of said proposed order, and no exceptions having been filed thereto by any affected party of record. Therefore, in accordance with RCW 34.04.110 and WAC 463-08-022 of the Rules and Regulations of the Council, the said Examiner's Proposed Order should be affirmed and adopted by the Council as its final order.

O R D E R

WHEREFORE, IT IS HEREBY ORDERED, That Examiner's Proposed Order Granting Motion to Correct Transcript, In Part (NPDES Portion) in re Application No. 74-1, issued November 12, 1975, shall be,

and the same is hereby, affirmed and adopted as the Order of the Council.

IT IS FURTHER ORDERED, That the transcript in this matter shall be, and the same is hereby deemed corrected in accordance with this Order.

Done in open Council session and effective this eighth day of December, 1975.

Thomas C. Stacer
Acting Chairman

Approved for Entry:

Darrel Peeples
Assistant Attorney General

BEFORE THE WASHINGTON STATE THERMAL POWER

PLANT SITE EVALUATION COUNCIL

In re Application 74-1 of PUGET SOUND POWER AND LIGHT COMPANY A Corporation of the State of Washington	APPLICATION 74-1 (SKAGIT) EXAMINER'S PROPOSED ORDER GRANTING MOTION TO CORRECT TRANSCRIPT, IN PART (NPDES PORTION)

Public hearings in this matter were held pursuant to due and proper notice to all interested parties at Sedro Woolley, Washington, and Olympia, Washington, during the period April 29, 1975, through July 10, 1975, inclusive. On August 29, 1975, applicant timely filed a Motion to Correct Transcript concerning the entire transcript of public hearings of the Thermal Power Plant Site Evaluation Council in conjunction with this application. No other motions, timely or untimely, have been filed by other parties to or participants in this matter. No response to this motion has been received by the Council from any participant in or party to this proceeding as of the date of this Order.

By this Order, the examiner believes it appropriate to respond only to applicant's motion insofar as it relates to hearings upon Puget's application for a National Pollutant Discharge Elimination System permit authorizing the discharge of certain substances from its proposed Skagit thermal nuclear projects and its request for Section 401(a) certification as specified

in the Federal Water Pollution Control Act Amendments of 1972 as set forth in 33 USC 1341.

Hearings on this portion of Application 74-1 were held in Sedro Woolley, Washington, on April 29 and 30 and May 1, 2, 6, 7, 8 and 9, 1975. The transcript in this portion of Application 74-1 consists of 1,698 pages. The examiner was present at each session and has read each of the corrections proposed for this portion of the transcript in the context of the original transcript. He has read this portion of the transcript for overall context. It appears to the examiner that the vast majority of the proposed corrections relate to minor mechanical errors in the reporting or transcription of the transcript, and that the accuracy of the proposed correction is apparent within the context of the transcript on these matters. In some other instances, the accuracy of the proposed correction is not apparent from the transcript and the proposed correction may have an effect upon the substance of the proceedings. Each of those proposed corrections which appear to the examiner to fall into this latter category is set out below:

(1) Volume 2, page 424, Mr. Schicker (Cross - Williams)

Q. And the losses that you described, where will that water go?

A. The water, 3,000 gallons are maintained as a reserve for fire protection. They have to be there, and they can be used only in emergency of a fire.

12 The 2,000 gallons are used for
13 construction water.

CORRECTIONS:

8 A. The water, 30,000 gallons are maintained as a
12 The 200,000 gallons are used for

(2) Volume 3, Page 562, Doctor Houghton (Direct - Thomsen)

5 In Tank Creek there is an additional
6 use by steelhead, but it appears that they do
7 not use this creek each year.

CORRECTION:

5 In Tank Creek there is an occasional

(3) Volume 3, Page 569, Doctor Houghton (Direct - Thomsen)

3 A well, taking first this situation of extremely
4 heavy rainfall event which the ponds are --
5 the designed criteria of the ponds, anything
6 approaching this condition, the stream levels
7 are high, the stream flow rates are high and
8 the streams' suspended solid loads are high.

CORRECTION:

4 heavy rainfall event which _____ are _____
5 the designed criteria of the ponds. Anything

(4) Volume 3, Page 608, Doctor Houghton (Cross - Leed)

7 Q. (By Mr. Leed) Would you agree that the
8 likelihood of any discharge of petroleum
9 products may have an adverse impact on the
10 aquatic life in Tank or Wiseman Creek?

11 A. I do not think that __ any discharge will.

CORRECTION:

11 A. I do not think that it is likely that any discharge will.

(5) Volume 6, Page 1036, Doctor Chakravorti (Recross - Leed)

7 As I remember from reading this document a long
8 time ago, this is only for a 48-hour test with a very
9 small pump, and this is no way to my mind a represent-
10 ation of the Ranney collection system, because in
11 actual operation, that will pump about 160 CFS, about
12 that figure of intake water, so I would hesitate to
13 take any of these data, which is only for a 48-hour
14 period, to come up with a table comparable to
15 125(10)-5, in which we have used a 12-year maximum data
16 from the following USGS STORE T data file

CORRECTION:

11 actual operation, that will pump about 106 CFS, about

NOTE: The underlined therms in lines 15 and 16 are mechanical corrections and are shown as corrected.

(6) Volume 6, Page 1061, Mr. Scott (Direct - Thomsen)

2 You will also notice there has been a line drawn
3 on this graph that shows the sinsic decay of
4 concentration as a function of time and distance down-
5 stream from the discharge.

CORRECTION:

3 on this graph that shows the ____ decay of

(7) Volume 6, Page 1091, Mr. Scott (Cross - Williams)

Q. When you were being examined directly, you testified that you had investigated the River upstream and downstream for the proper location for the diffuser.

How far up, and how far down?

A. Just the section that is shown on 125(7), part of the TPPSEC Application. The Hydrologists at Bechtol have looked at the river sections available near the plant site; and I have located this as being a stable section that would be feasible to put a diffuser into it.

CORRECTION:

the plant site; and I have located the diffuser in a

(8) Volume 7, Page 1309, Mr. Tosetti (Direct - Thomsen)

Page 1308 [Referring to dilution factor]

This represents the activity as it enters the cooling tower water and it is mixed with the water in the cooling tower basin. It also includes the

page 1309

effect of holdup and decay in the tower before a probable blowdown will occur.

CORRECTION:

before a possible blowdown will occur.

(9) Volume 7, page 1387, Dr. Houghton (Direct - Thomsen)

Within 25 feet downsteam the Delta T is reduced to approximately 2.5°, and in the lapsed time again based on river velocity of 1.5 feet per second, elapsed time would then be 17 seconds by the time this hypothetical fish had passed

22 200 feet downstream, he would have been -- or
23 he would be exposed at that time to a
24 temperature of approximately .8° greater than
25 that of the ambient river, . . .

CORRECTION:

22 100 feet downstream, he would have been -- or

(10) Volume 8, page 1526, Dr. Houghton (Cross - Williams)
6 fallout. This is a naturally occuring level of
7 Strontium. The maximum value measured in the Skagit
8 River is very similar to the maximum value in the
9 Nooksak and Storett data from there, which they did
10 report a level of 390 micrograms per liter as a
11 maximum as compared to the Skagit River of 710.

CORRECTION:

10 report a level of 690 micrograms per liter as a

It further appeared to the examiner in reviewing the proposed corrections that several minor mechanical errors appear within the motion itself; the examiner reviewed the transcript on the basis that these mechanical errors were corrected and the order herein shall reflect those corrections.

Having reviewed applicant's Motion to Correct Transcript insofar as it relates to Puget's Application for NPDES permit and Section 401(a) certification, consisting of Volumes I through VIII and pages 1 - 1,623; having been present at each of the aforementioned hearing sessions, and having reviewed each of the corrections in the context of the transcript in which it appears, the examiner proposes the following order.

O R D E R

WHEREFORE, IT IS HEREBY ORDERED That:

1. The Motion to Correct Transcript shall be, and it is hereby, deemed modified in the following respects:

(a) Page 3 of corrections to Volume 5, page 928, line 24, should read:

125(10)-5.

(b) Page 6 of corrections to Volume 6 shows a correction to page 1098, line 16. The reference should be to line 18.

(c) Page 2 of corrections to Volume 7, shows a correction to page 1288, line 23. The correction should read as follows:

Discharge, _ max "?

(d) Page 2 of corrections to Volume 7, shows a correction to line 11 of page 1391. This should refer to page 1301.

(e) At page 4 of corrections to volume 7, the corrections shown for page 1406, line 3, should read as follows:

-- unable to avoid.

2. IT IS FURTHER ORDERED That the corrections requested by motion for the following specified pages and lines shall be, and the same are hereby, denied:

(a) Volume 2, page 334, line 2;

(b) Volume 3, page 569, lines 4 and 5;

(c) Volume 5, page 933 - 44, lines 16 and 17.

(d) Volume 6, page 992, line 8;

(e) Volume 6, page 1089, line 21;

(f) Volume 6, page 1091, line 10.

3. IT IS FURTHER ORDERED That, except as noted above, applicant's Motion for Correction to the transcript in this matter, insofar as it relates only to Volume I - VIII consisting of pages 1 - 1,623 in the NPDES and Section 401(a) certification shall be, and the same is hereby, GRANTED.

DATED at Olympia, Washington, and effective this 12th day of November, 1975.

WASHINGTON STATE THERMAL POWER PLANT SITE EVALUATION COUNCIL

C. Robert Wallis
Legal Examiner

BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Application of PUGET SOUND POWER & LIGHT COMPANY, A Washington Corporation	FINDINGS, CONCLUSIONS AND ORDER REGARDING LAND USE PLANS AND ZONING ORDINANCES, THERMAL POWER PLANT SITE APPLICATION NO. 74-1

This matter came on for public hearing before the Washington Thermal Power Plant Site Evaluation Council convened in Sedro Woolley, Washington, at the Sedro Woolley Senior High School Auditorium beginning at 10:10 a.m., May 13, 1974, 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.

The parties to this proceeding and counsel who appeared concerning the subject matter of this decision were (1) the applicant, Puget Sound Power & Light Company, appearing by its counsel, F. Theodore Thomsen of Perkins, Coie, Stone, Olsen & Williams, Seattle, Washington; (2) Darrel Peeples, Assistant Attorney General, Olympia, Washington, counsel for the Washington State Thermal Power Plant Site Evaluation Council; and (3) William H. Clarke, Assistant

Attorney General of the state of Washington, Counsel for the Environment.

NATURE AND BACKGROUND OF THIS PROCEEDING

Puget Sound Power & Light Company filed its application for certification of a thermal power plant site, which is situated in Skagit County, on March 28, 1974. 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 that this hearing 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 and zoning ordinances and for the purpose of conducting a public informational hearing pursuant to WAC 463-08-035.

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

WHEREUPON, This public hearing having duly convened at 10:10 a.m., May 13, 1974, at the Sedro Woolley Senior High School Auditorium, Sedro Woolley, 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 Skagit County, Washington, and is more particularly described by a detailed legal description contained in Section 105(1) and graphically represented by Figures 100(1)-3 and 105(1)-2 of the application.

2. The only local government unit exercising land use control responsibility with respect to the proposed site is Skagit County. None of the proposed facilities are to be located in incorporated areas. Skagit County land use controls are implemented by the following Exhibits herein:

Exhibit No.	Description
1	Skagit County Comprehensive Plan (text and map)
2	Skagit County North Central District Comprehensive Plan (text and map)
3	Recorded Motion adopted December 18, 1973 by the Skagit County Board of County Commissioners
4	Skagit County Interim Zoning Ordinance (as amended)
5	Skagit County Interim Zoning Map (central portion)
7	Resolution No. 6279 adopted March 26, 1974 by the Skagit County Board of County Commissioners
8	Agreement executed March 26, 1974 by and between Skagit County, Washington and Puget Sound Power & Light Company (the Rezone Contract)

Said exhibits represent the applicable county land use controls in effect as of the date on which Application No. 74-1 was submitted, that date being March 28, 1974. As of the date of the hearing, May 13, 1974, said exhibits are still in effect and have not been amended or changed.

3. The project's reactor buildings, auxiliary buildings, turbine generator buildings, cooling towers, administration building, and transmission switchyard are to be located on land zoned Industrial. These uses are permitted uses within the Industrial Zone under the provisions of the Rezone Contract, Exhibit No. 8 herein. Other project facilities at the plant site are to be located on land zoned Forestry-Recreation and such uses will be limited to the uses permitted in the Forestry-Recreation Zone under the provisions of the Rezone Contract, Exhibit No. 8 herein.

4. The project's water intake and discharge facilities, railroad spur, and associated transmission lines are to be located on land zoned Agricultural, Residential, and Forestry-Recreation. These facilities are permitted uses in these zones under the provisions of the Skagit County Interim Zoning Ordinance, Exhibit No. 4 herein.

5. The proposed site and the use of the proposed site for the proposed project are consistent with and in compliance with Skagit County's land use plans and zoning ordinances, Exhibits Nos. 1, 2, 3, 4, 5, 7 and 8 herein.

6. The Skagit Regional Planning Council is a council of governments consisting of various governmental agencies and municipal corporations organized under the provisions of RCW 36.70. The land use planning activities of the Skagit Regional Planning Council are implemented by its planning study entitled "Comprehensive Land Use Alternatives for the Skagit River Floodplain and Related Uplands," Exhibit No. 10 herein. Said exhibit represents the applicable regional land use plans in effect as of the date on which Application No. 74-1 was submitted, that date being March 28, 1974. As of the date of the hearing, May 13, 1974, said exhibit is still in effect and has not been amended or changed.

7. The proposed site and the use of the proposed site for the proposed project are consistent with and in compliance with the applicable regional land use plans, Exhibit No. 10 herein.

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

CONCLUSIONS OF LAW

1. This hearing of the Washington State Thermal Power Plant Site Evaluation Council was duly convened pursuant to the provisions 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 hearing in the manner required by law.

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

5. The proposed site, including related or supporting facilities and 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 Skagit County and regional land use plans and zoning ordinances which bear upon the land areas immediately surrounding the proposed site and the proposed site itself, and the proposed site does conform with existing land use plans and zoning ordinances in effect as of the date of said application.

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 State Thermal Power Plant Site Evaluation Council as of May 13, 1974, that the use and purpose of the proposed site described in Application No. 74-1 on file with the Council is consistent with and in compliance with

applicable county and regional land use plans and zoning ordinances, and that the proposed site does conform with existing land use plans and zoning ordinances in effect as of the date of said application.

ENTERED THIS 27TH DAY OF MAY 1974

WASHINGTON STATE THERMAL POWER PLANT
SITE EVALUATION COUNCIL

BY Oswald Greager
Oswald Greager
Chairman

APPROVED FOR ENTRY:

BY
Darrel Peeples
Assistant Attorney General

PUGET SOUND POWER & LIGHT COMPANY

BY F. Theodore Thomsen
F. Theodore Thomsen
Counsel

COUNSEL FOR THE ENVIRONMENT

BY William H. Clarke
William H. Clarke
Assistant Attorney General

APPLICATION NO. 74-1
ORDER NO. 2

ADOPTED 5/27/74

BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Application of PUGET SOUND POWER & LIGHT COMPANY A Washington Corporation	Application No. 74-1 ORDER APPOINTING A PREHEARING EXAMINER AND ESTABLISHING HIS FUNCTIONS AND AUTHORITY

1. A Prehearing Examiner is hereby appointed to perform certain examiner functions with respect to Application No. 74-1 described in Sections 3 and 4 of this Order pursuant to WAC 463-o8-021. The Prehearing Examiner will be assigned by the Chief Examiner of the Washington State Utilities and Transportation Commission pursuant to the Letter of Agreement between the Council and the Commission dated May 7, 1974. The Prehearing Examiner so assigned shall serve for all prehearing activities relating to Application No. 74-1.

2. The Prehearing Examiner shall convene a conference as soon as possible to be attended by the parties (and the Council's staff and independent consultant) for the purpose of developing a realistic timetable for the processing of specific parts of Application No. 74-1 by utilization by the Prehearing Examiner of the functions and authority set forth in Sections 3 and 4 hereof and shall submit to the Council a proposed order for the Council's final decision pursuant to WAC 463-08-022 (13).

3. The examiner functions to be performed by the Prehearing Examiner are:

   a. The Prehearing Examiner shall recommend findings as to the adequacy of information supplied in Application No. 74-1. He shall use in making such findings the comments as submitted by parties to these proceedings and the reports required or supplied by the Council's independent consultant.

   b. The Prehearing Examiner shall recommend findings based upon facts agreed to by the parties hereto, facts regarding the subject matter of Application No. 74-1 which the Council should officially notice, and all proposed conditions for certification agreed to by parties hereto.

   c. The Prehearing Examiner shall identify and submit to the Council all facts and proposed certification conditions which appear to be in dispute among the parties.

4. The Prehearing Examiner shall be specifically authorized to require that all parties to this proceeding submit in writing all:

   a. Requests for additional information to supplement the application.

   b. Questions as to the contents of Application No. 74-1's sections.

c. Factual and legal contentions concerning disputed facts or proposed certificatory conditions of any matter relevant to Application No. 74-1.

d. Listings of probable witnesses and/or evidentiary matters to be submitted relevant to disputed items identified in Section 3(c) hereof.

5. The Council's independent consultant for Application No. 74-1 shall be directed to submit reports on the contents of Application No. 74-1 to the Council on or before a date to be established pursuant to Section 2 hereof. The consultant shall make his report in part or parts consistent with the schedule identified by Section 2 hereof. Such report or reports by the consultant shall be transmitted to all parties for their review and submission of comments thereon to the Prehearing Examiner

ORDERED AND DECLARED By the Washington State Thermal Power Plant Site Evaluation Council on May 27, 1974, in open meeting.

ENTERED This 27th Day of May 1974

WASHINGTON STATE THERMAL POWER PLANT
SITE EVALUATION COUNCIL

BY Oswald Greager
Oswald Greager
Chairman

APPROVED FOR ENTRY:

BY
Darrel Peeples
Assistant Attorney General

PUGET SOUND POWER AND LIGHT COMPANY

BY F. Theodore Thomsen
F. Theodore Thomsen
Counsel

COUNSEL FOR THE ENVIRONMENT

BY Malachy R. Murphy
Malachy R. Murphy
Deputy Attorney General

ORDER NO. 3
ADOPTED 8 /14/74

BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Application of PUGET SOUND POWER & LIGHT COMPANY A Washington Corporation	)	Application No. 74-1 ORDER OF INTERVENTION FOR SKAGIT ENVIRONMENTAL COUNCIL (SEC)

Pursuant to WAC 463-08-025(b) and based upon petitioner's Amended Petition to Intervene in the Application Hearing Process by Skagit Environmental Council, the Washington State Thermal Power Plant Site Evaluation Council, hereinafter referred to as the Council, finds the petitioner has shown certain pertinent interests which the Council discerns appropriate for intervention.

NOW THEREFORE, Pursuant to the provisions of WAC 463-08-025(b) it is hereby ordered by the Council that Skagit Environmental Council be granted standing of an intervenor subject to the following conditions:

1. The intervenor shall be afforded the following procedural rights:

   a. The right to submit briefs to the Council.

   b. The right to receive notices given by the Council to the parties and other intervenors.

c. The right to present oral argument and evidence where appropriate, to the Council.

d. The right of cross examination.

e. The right to apply to the Council for subpoenas requring the attendance and testimony of witnesses or the production of evidence pursuant to WAC 1-08-160.

f. The right to be served with all orders and decisions entered by the Council and the Governor in the application process, and the right to file a petition for rehearing.

2. Intervention is granted for participation only to those interests falling within WAC 463-12. However, intervention may be expanded to include other pertinent interests which Skagit Environmental Council may establish to the satisfaction of the Council in the future, to be appropriate interests for its intervention.

ENTERED This 14th Day of August 1974

WASHINGTON STATE THERMAL POWER
PLANT SITE EVALUATION COUNCIL

BY Oswald Greager
Oswald Greager
Chairman

APPROVED FOR ENTRY:

BY
Darrel Peeples
Assistant Attorney General

APPROVED AS TO FORM
NOTICE OF PRESENTATION WAIVED:

PUGET SOUND POWER &
LIGHT COMPANY

BY F. Theodore Thomsen
F. Theodore Thomsen
Counsel

SKAGIT ENVIRONMENTAL COUNCIL

BY
Alfred Rode
Counsel

COUNSEL FOR THE ENVIRONMENT

BY
William H. Clarke
Assistant Attorney General

ORDER NO. 4
ADOPTED 8/14/74

BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Application of PUGET SOUND POWER & LIGHT COMPANY A Washington Corporation	Application No. 74-1 ORDER OF INTERVENTION FOR SKAGITONIANS CONCERNED ABOUT NUCLEAR PLANTS (SCANP)

Pursuant to WAC 463-08-025(b) and based upon petitioner's Petition to Intervene in the Application Hearing Process by Skagitonians Concerned About Nuclear Plants (SCANP), the Washington State Thermal Power Plant Site Evaluation Council, hereinafter referred to as the Council, finds that the petitioner has shown certain pertinent interests which the Council discerns appropriate for intervention.

NOW THEREFORE, Pursuant to the provisions of WAC 463-08-025(b), it is hereby ordered by the Council that Skagitonians Concerned About Nuclear Plants (SCANP) be granted standing of an intervenor subject to the following conditions:

1. The intervenor shall be afforded the following procedural rights:

   a. The right to submit briefs to the Council.

   b. The right to receive notices given by the Council to the parties and other intervenors.

c. The right to present oral argument and evidence where appropriate, to the Council.

d. The right of cross examination.

e. The right to apply to the Council for subpoenas requiring the attendance and testimony of witnesses or the production of evidence pursuant to WAC 1-08-160.

f. The right to be served with all orders and decisions entered by the Council and the Governor in the application process, and the right to file a petition for rehearing.

2. Intervention is granted for participation only to those interests falling within WAC 463-12. However, intervention may be expanded to include other pertinent interests which Skagitonians Concerned About Nuclear Plants may establish to the satisfaction of the Council in the future, to be appropriate interests for its intervention.

ENTERED This 14th Day of August 1974

WASHINGTON STATE THERMAL POWER
PLANT SITE EVALUATION COUNCIL

BY Oswald Greager
Oswald Greager
Chairman

APPROVED FOR ENTRY:

BY
Darrel Peeples
Assistant Attorney General

APPROVED AS TO FORM
NOTICE OF PRESENTATION WAIVED:

PUGET SOUND POWER &
LIGHT COMPANY

BY
F. Theodore Thomsen
Counsel

SKAGITONIANS CONCERNED ABOUT
NUCLEAR PLANTS

BY
Roger M. Leed
Counsel

COUNSEL FOR THE ENVIRONMENT

BY
William H. Clarke
Assistant Attorney General

ORDER NO. 5
ADOPTED 8/14/74

BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Application of PUGET SOUND POWER & LIGHT COMPANY A Washington Corporation	Application No. 74-1 ORDER OF INTERVENTION FOR RONALD CARSTENS AND HELEN DAY

Pursuant to WAC 463-08-025(b) and based upon petitioners' Petition to Intervene in the Application Hearing Process by Helen Day and Ronald Carstens, the Washington State Thermal Power Plant Site Evaluation Council, hereinafter referred to as the Council, finds that the petitioners have shown certain pertinent interests which the Council discerns appropriate for intervention.

NOW THEREFORE, Pursuant to the provisions of WAC 463-08-025(b), it is hereby ordered by the Council that Ronald Carstens and Helen Day be granted standing of an intervenor subject to the following conditions:

1. All rights of participation in the hearing process are limited to appearances by and through Skagitonians Concerned About Nuclear Plants.

2. Intervention is granted for participation only to those interests falling within WAC 463-12. However, intervention may be expanded to include other pertinent interests which Ronald

Carstens and Helen Day may establish to the satisfaction of the Council in the future, to be appropriate interests for their participation.

ENTERED This 14th Day of August 1974

WASHINGTON STATE THERMAL POWER
PLANT SITE EVALUATION COUNCIL

BY Oswald Greager
Oswald Greager
Chairman

APPROVED FOR ENTRY:

BY
Darrel Peeples
Assistant Attorney General

APPROVED AS TO FORM
NOTICE OF PRESENTATION WAIVED:

PUGET SOUND POWER &
LIGHT COMPANY

BY F. Theodore Thomsen
F. Theodore Thomsen
Counsel

RONALD CARSTENS AND HELEN DAY

BY
Roger M. Leed
Counsel

COUNSEL FOR THE ENVIRONMENT

BY
William H. Clarke
Assistant Attorney General

APPLICATION NO. 74-1
ORDER NO. 6

BEFORE THE STATE OF WASHINGTON

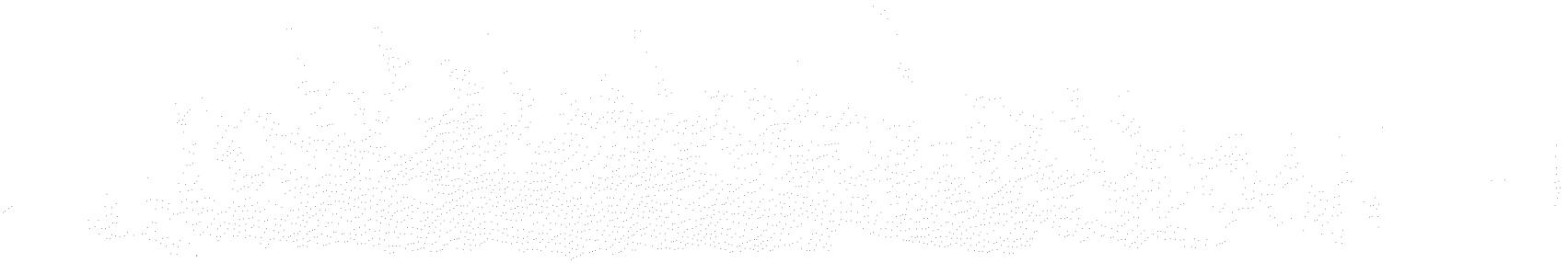
THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the Matter of the Application of the PUGET SOUND POWER & LIGHT COMPANY A Washington Corporation	)	APPLICATION NO. 74-1 AMENDING COUNCIL ORDER NO. 2, CHANGING THE FUNCTIONS AND AUTHORITY OF THE PREHEARING EXAMINER

Council Order No. 2, May 27, 1974, appointing a Prehearing Examiner and establishing his functions and authority with respect to Application No. 74-1 is amended as follows:

ADDED: Paragraph 3.d.

The Prehearing Examiner shall preside as hearing officer at hearings required by the above-cited application and shall conduct such hearings under the provisions of RCW Chapter 34.04 and rules of the Council.



BEFORE THE STATE OF WASHINGTON

THERMAL POWER PLANT SITE EVALUATION COUNCIL

IN THE MATTER OF THE APPLICATION OF THE PUGET SOUND POWER & LIGHT COMPANY A Corporation of the State of Washington	)	APP. NO. 74-1 (SKAGIT) ORDER GRANTING WITHDRAWAL OF SKAGIT ENVIRONMENTAL COUNCIL AS INTERVENOR

THIS MATTER, having come on for hearing before the Thermal Power Plant Site Evaluation Council (Council) on May 22, 1975, at Sedro Woolley, Washington, upon the motion of intervenor, Skagit Environmental Council (S.E.C.), for an order authorizing withdrawal of S.E.C. as an intervenor, and the Council having considered said motion and oral argument in support of the motion by Mr. Alfred G. Rode, Attorney for said intervenor; now therefore,

IT IS HEREBY ORDERED that the motion seeking authorization for withdrawal of Skagit Environmental Council shall be and is hereby granted.

Thomas Stacer

THOMAS STACER, Acting Chairman
Thermal Power Plant Site
Evaluation Council

APPLICATION NO. 74-1
ORDER NO. 7
ADOPTED 1/26/76

BEFORE THE WASHINGTON STATE

THERMAL POWER PLANT SITE EVALUATION COUNCIL

In the matter of Application No. 74-1 of PUGET SOUND POWER & LIGHT COMPANY For a National Pollutant Discharge Elimination System Permit and Certificate of Compliance under Title 33, U. S. Code.	FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

This matter came on regularly for hearing pursuant to due and proper notice to all interested parties on April 29 and 30, and May 1, 2, 6, 7, 8 and 9, 1975, at Sedro Woolley, Washington, before members of the Washington State Thermal Power Plant Site Evaluation Council and Legal Examiner C. Robert Wallis.

Council members who participated in this proceeding, and the agencies they represent, are the following:

THOMAS STACER Acting Chairman	Utilities and Transportation Commission
BRUCE REEVES	Department of Natural Resources
DAVID GUIER	Department of Emergency Services
JOHN CLARK	Parks and Recreation Commission
ROBERT MOONEY	Department of Social and Health Services
GEORGE HANSEN	Department of Ecology
LAWRENCE BRADLEY	Department of Commerce and Economic Development
VIRGIL CUNNINGHAM	Department of Agriculture
JOHN DOUGLAS	Department of Game
J. E. LASATER	Department of Fisheries
HOWARD MILLER	Commissioner, Skagit County

The parties were represented as follows:

APPLICANT: PUGET SOUND POWER & LIGHT COMPANY
By F. Theodore Thomsen
and William F. Baron
Attorneys at Law
Perkins, Coie, Stone, Olsen & Williams
1900 Washington Building
Seattle, Washington 98104

INTERVENORS: SKAGITONIANS CONCERNED ABOUT NUCLEAR PLANTS
RONALD CARSTENS and HELEN DAY
By Roger M. Leed
540 Central Building
Seattle, Washington 98104

SKAGIT ENVIRONMENTAL COUNCIL
By Alfred G. Rode
Attorney at Law
202 Fairhaven Avenue
Burlington, Washington

COUNSEL FOR THE ENVIRONMENT
By Wayne Williams
Assistant Attorney General
Temple of Justice
Olympia, Washington 98504

The Council's attorney, Darrel Peeples, Assistant Attorney General, Temple of Justice, Olympia, Washington 98504, also participated in the hearing.

Testimony from the following witnesses was presented by the applicant:

Robert V. Myers
Frederick M. Berthrong
Thomas Edwin Oaks
Warren J. Ferguson
Wilfred J. Finnegan
Bronislaw S. Schicker
Harry L. Blohm
Herman H. Druebert, P.E.
Jonathan P. Houghton
Ranjit K. Chakravorti
Barry A. Scott
Crispin Sager Kraft
Robert Yale
Richard Tosetti
Allyn Seymour

The following witnesses, being called by intervenors SCANP, Carstens and Day, presented testimony:

Robert J. Sylvester
David Brubaker

The following witnesses, appearing as members of the public, presented testimony during the course of the hearing:

Sophie Neble
Clair Heilman
Ron Carstens
George S. Mahaffy
Gregory McKee
Jeffrey Margolis
Helen Day
Jock Heverling
Keron Ericson
Will Davis
Richard Dildine
Gary Worline
Donald Bergstedt
Larry McKinnon
Zell A. Young
Jean Lisherness

The members of the Council voting on this matter having heard or read the evidence and having personally considered the entire record in this matter, the Council now makes and enters the following findings of fact.

FINDINGS OF FACT

1. On April 4, 1974, Puget Sound Power & Light Company (Applicant) filed with the Council an application for a National Pollutant Discharge Elimination System (NPDES) permit authorizing Applicant to discharge pollutants expected to result from the construction and operation of its proposed Skagit Nuclear Power Project (Project). Applicant also requested the Council to issue a certification in accordance with Section 401 (33 USC 1341) of the Federal Water Pollution Control Act (FWPCA; 33 USC 1251) with respect to discharges expected to result from the construction and operation of the Project.

2. Applicant on February 28, 1975, filed with the Council an amendment to its NPDES permit application. The term "NPDES Application" as used herein refers to the April 4, 1974, document as amended on February 28, 1975. The NPDES Application, as amended, constitutes Officially Noticed Document No. 1.

3. Presently pending before the Council is Puget Sound Power & Light Company's application for certification of the Project site pursuant to RCW 80.50. This application, filed with the Council on March 28, 1974, and assigned Application No. 74-1 by the Council, has since been revised by Revisions 1 through 7 filed with the Council. Applicant's Site Certification Application No. 74-1, as revised through Revision 7 dated May 2, 1975, is referred to herein as "Certification Application" (Officially Noticed Document No. 3).

4. The Project will consist of a nuclear-fueled electrical generating facility designed to accommodate two nuclear generating units each with a nominal electric power output of 1,288 MWE. Applicant proposes to construct the Project on a site (the Plant Site) of approximately 1,500 acres located at the north side of the Skagit River Valley in Skagit County, Washington, near the town of Lyman. The Project, the Plant Site, and the site environs are described in the Certification Application.

5. At its regular meeting of March 10, 1975, the Council made a tentative determination to issue an NPDES permit for the Project and in furtherance of this determination, adopted a proposed Draft NPDES Permit dated March 10, 1975, (Officially Noticed Document No. 2). This document is referred to herein as the "Draft NPDES Permit." At its March 10, 1975, meeting, the Council set April 29, 1975, as the date for commencement of the public hearings on the NPDES Application and the Section 401 Certification for the Project, pursuant to the official calendar for the Project previously agreed upon by the parties and adopted by the Council at its meeting of January 27, 1975.

6. The Council then prepared, under date of March 17, 1975, a fact sheet with respect to Puget's NPDES Application and, under date of March 21, 1975, a Notice of the public hearing set for April 29, 1975, which Notice also gave notice of the NPDES Application and the Application for Section 401 Certification. The fact sheet and Notice were then issued, mailed, circulated, published, and posted more than 30 days prior to April 29, 1975, the date set for public hearing on these matters, in full compliance with all applicable laws and regulations. The said notice invited all interested persons to submit written comments on these matters to the Council within 30 days following the date of publication of the notice. No such comments were received by the Council.

7. Pursuant to the notice described in Finding of Fact No. 6, next above, public hearing on these matters was convened at 10:00 o'clock A.M. on April 29, 1975, in the Sedro Woolley High School Little Theater, Sedro Woolley, Washington, before the Council members as set out above and Legal Examiner C. Robert Wallis.

8. The public hearing continued for a total of eight days during the two weeks subsequent to its opening. The transcript in this matter consists of 1,698 pages as follows: Pages 1-933; 933-1

to 933-75; and 934-1,624. The transcript in this matter stands corrected as provided in Examiner's Proposed Order Granting Motion to Correct Transcript, In Part, dated November 12, 1975, which was affirmed and adopted by the Council's Order dated December 8, 1975. Thirty-eight exhibits were admitted into evidence during the hearing and are identified in Appendix A, attached hereto and by this reference made a part hereof. In addition, provision was made during the course of the hearing for the admission of late-filed Exhibits 23, 24, 25 and 26, which have been received and made a part of the record herein. Official notice was taken during the hearing to numerous documents, which are identified in Appendix B, attached hereto and by this reference made a part hereof. During the course of this hearing, the applicant presented 14 witnesses; intervenors SCANP, Carstens and Day presented 2 witnesses; and 17 members of the public presented testimony.

9. An Examiner's Proposed Order herein issued on December 11, 1975; applicant and intervenors filed timely exceptions thereto; applicant filed a timely reply to intervenors' exceptions.

10. The Draft NPDES Permit identifies five outfall points through which pollutants will be discharged into Washington State waterways. These points are located as follows:

(a) Outfall Point 001
Latitude 48°29'19"N, Longitude 122°11'56"W

(b) Outfall Point 002
Latitude 48°32'5"N, Longitude 122°7'50"W

(c) Outfall Point 003
Latitude 48°32'5"N, Longitude 122°6'35"W

(d) Outfall Point 004
Latitude 48°32'5"N, Longitude 122°6'28"W

(e) Outfall Point 005
Latitude 48°32'6"N, Longitude 122°6'21"W

11. Discharge Outfall Point 001 is the only point from which pollutants occasioned by the operation of the proposed Project will be discharged directly into the Skagit River. Outfall Points 002 through 005 are points at which pollutants contained in construction runoff will be discharged into tributaries of the Skagit River.

12. The 7-day, 10-year low flow (that 7-day lowest flow which can statistically be expected to occur only once in a 10-year period) for the Skagit River in the vicinity of Project Discharge Point 001 is 4,740 cubic feet per second (cfs). The minimum instantaneous, 100-year low flow at this location is 2,330 cfs. The Council finds that the 7-day, 10-year low flow provides an appropriately conservative basis for use in evaluating project discharge impacts.

13. The Skagit River is one of great ecological importance as a spawning ground, rearing ground and fishing area for many species of salmonoid fish. It is also an important economic and recreational resource.

14. The significant fish populations of the Skagit River for commercial or recreational purposes are Chinook, Coho, Sockeye, Pink and Chum salmon and Steelhead and Searun Cutthroat trout.

15. The stability and survival of the Skagit's anadromous or salmonoid fish population are dependent upon adequate spawning and rearing areas, and adequate food supply for young fish, and satisfactory water quality.

16. The effluent discharges for which applicant seeks a permit from the Council in this proceeding consist of the following:

(a) Sanitary sewage discharge;

(b) Construction runoff discharges; and

(c) Project discharge.

These will be treated herein in the order listed.

SANITARY SEWAGE DISCHARGE

17. Applicant has applied for a permit authorizing it to discharge sanitary sewage generated during the construction and operation of the Project into the municipal sewage system of the City of Sedro Woolley, Washington, by means of a sanitary sewage pipeline to be constructed from the Project to the municipal system (NPDES Application Attachment 2). This discharge is referred to herein as the "Sanitary Sewage Discharge."

18. The estimated sanitary sewage loads from the Project which will comprise the Sanitary Sewage Discharge are shown in the NPDES Application on Table 1 of Attachment 2. The maximum load will occur in the fourth year of construction and will constitute approximately 500 population equivalents. During normal Project operation, the maximum load will be approximately 167 population equivalents.

19. The Sedro Woolley sewage treatment plant has a capacity of 11,000 population equivalents and is presently serving a population of 5,000. The excess capacity of this plant is sufficient to accommodate the maximum flow proposed to be discharged from the Project, in light of both present demand and expected future demand growth. The city is willing to receive sewage from the Project, and the Sedro Woolley City Council found at a meeting of April 28, 1975, that the conditions specified in the Draft NPDES Permit would be acceptable to the city.

20. The Sanitary Sewage Discharge will contain only sanitary sewage generated by humans. This discharge will comply with Federal pretreatment standards (40 CFR 128; Officially Noticed Document No. 7).

21. The Sanitary Sewage Discharge will be to a municipal sewage system. This discharge will not violate Washington State Water Quality Standards (WAC Chapter 173-201, Officially Noticed Document No. 6; referred to herein as "Water Quality Standards").

CONSTRUCTION RUNOFF DISCHARGES

22. Applicant has applied for a permit authorizing it to discharge collected storm runoff drainage generated during the construction of the project into two creeks on the Plant Site at Discharge Points 002, 003, 004 and 005 (NPDES Application, Section II). These discharges are referred to herein as "Construction Runoff Discharges."

23. Construction Runoff Discharges will originate from rainfall runoff from graded and spoil areas. Spoil areas are sites where earth, gravel, rock and other such substances removed from the Project site by grading and excavation will be stored during Project construction.

24. Applicant's plans for erosion control during site preparation and Project construction were presented during the course of the hearing and are described in Certification Application Section 120(1). The basic method for control of erosion during construction will be the collection of storm water runoff from graded and spoil areas into sediment retention ponds, where the runoff will be detained and sediment will settle out prior to discharge of the water. The ponds have been designed and are capable of operation so as to assure that the concentration of total suspended solids in the water discharge will not exceed the Federal standards of 50 mg/l (milligrams per liter) specified in Federal standards of performance for new sources (40 CFR 423.15 and 423.45, referred to herein as "Federal Standards of Performance"; see Officially Noticed Document No. 4). Construction Runoff Discharges will therefore consist of rainfall containing eroded particulate matter in concentrations not exceeding 50 mg/l.

25. Four ponds have been proposed by applicant for sediment retention purposes. Discharge points from these ponds are identified as Discharge Points 002, 003, 004 and 005 in the NPDES Application, in Draft NPDES Permit, in the testimony, and on Exhibit 3. The sediment retention barriers (dams) associated with these four discharge points are diagrammed on Exhibit 4.

26. The maximum 24-hour, 10-year rainfall (that maximum rainfall which can statistically be expected to occur only once in a 10-year period) at the project site is 3.5 inchess. A significant portion of any rainfall will percolate into the ground, rest on or

become absorbed by vegetation, or otherwise fail to constitute runoff. Applicant has calculated, by state-of-the-art methods, runoff water volumes which can be expected to be contained by the sediment retention barriers. The sediment retention ponds as shown in Exhibit 3 are designed to contain runoff in excess of the 24-hour, 10-year storm in addition to retained sediment. The ponds are designed to pass safely the 100-year storm without overtopping.

27. Questions were raised during the hearing concerning the validity of Applicant's use of coastal, rather than Cascade foothills, rainfall figures. Applicant should be required, within the extent of its capabilities, to verify the accuracy of its choice of figures and should, in the event its figures are unduly conservative, be required to amend its plans for retention barriers, in accordance with the following condition, which should be made a part of any permit to be issued herein:

> Prior to construction, Permittee shall advise the Council of the design redundancy in the settling capacity of the storm runoff settling ponds with regard to the maximum 24-hour, 10-year rainfall expectancy (3.5 inches). The Council reserves the right to require increased pond capacity or to require such other action as it deems necessary.

28. Black Creek is a tributary of Wiseman Creek. The stream will be diverted so that it joins Wiseman Creek at a point in excess of 1,000 feet north, or upstream, from the present confluence. The permanent diversion channel will be approximately 3,000 feet long. Discharge Point 002 is located on the present Black Creek, in an area from which water flow will be diverted, near the creek's present confluence with Wiseman Creek. Construction Runoff Discharge from Point 002 will thus be into Wiseman Creek, as diagrammed on Exhibit 3. Wiseman Creek is classified as Class A water under the Water Quality Standards. Construction Runoff Discharges from Points 003, 004 and 005 will be into Tank Creek as shown on Exhibit 3. Tank Creek is classified as Class AA water under the Water Quality Standards. Both creeks have populations of resident fish in the plant site area, and both are used by anadromous fish in their lower reaches, below intervening natural barriers.

29. Because the Construction Runoff Discharges will consist of rainfall runoff from graded and spoil areas, the pH, coliform, dissolved oxygen, total dissolved gas and temperature parameters of construction area runoff is expected to be consistent with natural conditions and the discharges are not expected to contain either toxic or radioactive substances. Applicant should be required to prohibit, and to develop procedures for preventing, the unauthorized or accidental spillage of substances in areas where they may be washed, carried or drained into the retention ponds. Discharges under the Permit herein should be

conditioned upon formulation of preventive plans, surveillance and procedures and corrective measures to effect this end, in accordance with the following condition which should be made a part of the Permit herein authorized:

> No dumping, spilling or deposit of oil, grease, chemicals, cement truck washings or other substances in areas within which such substances may be drained, washed or carried into discharges from the Plant Site will be allowed, except as specifically authorized in this Permit. Permittee must present to the Council plans outlining preventive surveillance and corrective measures designed to provide an effective barrier to introduction of foreign substances to Construction Runoff Discharge. No discharges may be made from Discharge Points 002, 003, 004 or 005 unless and until such plans have been accepted and approved by the Council.

30. Testimony during the hearing indicated that the temperature in the settling ponds at Discharge Points Serial Nos. 002, 003, 004 and 005 would not exceed 70° Fahrenheit. To insure that this capability is maintained, the following conditions should be inserted into the Permit to be granted herein:

> No discharges from settling ponds at Discharge Outfall Point Serial Nos. 002, 003, 004 or 005 shall be made if the temperature of the discharge exceeds 70° Fahrenheit; provided that the Council may temporarily waive this limitation if the Council determines that such waiver is appropriate and prudent, considering the total effect upon the ecosystem.

Construction Runoff Discharges, as thus conditioned, will not violate Water Quality Standards relating to coliform bacteria, dissolved oxygen, total dissolved gas, temperature or pH values.

31. Both Wiseman and Tank Creeks frequently experience concentrations of total suspended solids in excess of 50 mg/l from natural runoff, with levels as high as 237 mg/l in Wiseman Creek and 189 mg/l in Tank Creek measured during Applicant's water quality monitoring program.

32. The sediment retention ponds have been designed and are capable of operation so that the Construction Runoff Discharges will meet the standard of 50 mg/l total suspended solids specified in the Federal Standards of Performance. Testimony adduced at the hearing indicated that Applicant does not at present have prepared an operating manual outlining procedures to be adopted to insure compliance with terms and conditions of any discharge permit. In order for the Council to evaluate Applicant's procedures undertaken

to comply with Permit conditions, Applicant shall be required to prepare such a manual and receive Council approval thereof prior to making of any discharge from Discharge Points 002, 003, 004 or 005 in accordance with the following condition which shall be made a part of the Permit to be issued herein:

> The Permittee shall prepare and present to the Council prior to the discharge of any effluent, an operational manual describing the proper operation of the settling ponds at Discharge Point Serial Nos. 002, 003, 004 and 005, including but not limited to methods of discharge operation, monitoring release and pumping of residue. No discharge shall be made until the operational manuals have been reviewed and accepted by the Council. The Council reserves the right to require amendments to the operational manual at any time.

33. Maximum levels of total suspended solids associated with the Construction Runoff Discharges will be less than levels of total suspended solids occurring naturally in Wiseman and Tank Creeks with some frequency. The discharge from Point 002 will not cause Wiseman Creek to fail to meet or exceed the requirements for all or substantially all of the uses appropriate to Class A water that are consistent with the natural conditions that occur in this creek. The discharges from Points 003, 004 and 005 will not cause Tank Creek to fail to exceed, markedly and uniformly, the requirements for all or substantially all uses appropriate to Class AA water that are consistent with the natural conditions that occur in this creek.

34. Suspended solids can be considered a potentially deleterious material. Conflicting testimony was presented relating to the question of whether levels of total suspended solids associated with the Construction Runoff Discharges would be damaging to the aquatic environment. Intervenor's witness, Dr. Brubaker, described the adverse effects of total suspended solids and of sedimentation potentially associated with suspended solids. Applicant's witness, Dr. Houghton, quantified the levels at which adverse effects can be expected from total suspended solids, while still suspended. Those levels exceed substantially the levels associated with Construction Runoff Discharges. The Council finds, that, given the characteristics of Wiseman and Tank Creeks relating to flow, gradient, natural levels of suspended solids, natural flushing of sediment, and aquatic life, the levels of total suspended solids associated with Construction Runoff Discharges is expected to have a minimal impact upon the aquatic life.

35. While levels of total suspended solids can be estimated in advance, turbidity levels cannot, since there is no direct correlation between the two parameters. Turbidity must be measured empirically; it cannot be calculated. In view of this, compliance

with Water Quality Standards relating to turbidity cannot be demonstrated in advance. Applicant by means of empirical observations will have the ability to ascertain turbidity increases caused by Construction Runoff Discharges in Jackson Turbidity Units (JTU) and to operate the sediment retention ponds so that Construction Runoff Discharges comply with Condition G-4 of the Draft NPDES Permit, prohibiting the Permittee from discharging effluents causing violations of the Water Quality Standards.

36. The utilization of mixing zones in Tank and Wiseman Creeks is not appropriate. All pertinent water quality standards must therefore be met at the point of discharge. Ecologically effective discharge management, however, may call for discharge at times when turbidity limitations cannot be met. The Council does not believe that the record herein sufficiently states a case for waiver of this requirement; at the time when Applicant presents its Construction Runoff Discharge operational manual it may seek limited waiver of turbidity requirements. The Council will then consider whether limited, temporary waiver of such requirements is appropriate and prudent, considering total effect upon the ecosystem.

37. Taking into consideration the characteristics of Wiseman and Tank Creeks, and the fish populations and aquatic biota that are present in or could be expected to make use of or pass through the reaches of these creeks in the vicinity of discharge outfalls, and in view of the anticipated effect of these discharges on fish and biota, the Council finds that the discharges as conditioned herein will not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem, and which will not diminish other beneficial uses disproportionately.

38. Concerns were voiced during the hearing about the possibility that operation of Construction Runoff Discharge Outfalls might cause accelerated siltation of lower reaches of Tank and Wiseman Creeks. Applicant stated on the record its willingness to bear responsibility for any damage resulting from its operations. Consequently, the following condition, consistent with Applicant's position, should be added to Condition G-23 of the Draft NPDES Permit:

> In the event that operation of Discharge Outfall Points 002, 003, 004 or 005 are shown to have caused damage to downstream property owners through siltation of Tank or Wiseman Creeks, Permittee shall negotiate in good faith with any affected property owner or owners to effect a resolution acceptable to all parties thereto.

39. No permit authority was sought for any discharges which might result from construction of barge slip or railroad or highway access routes in conjunction with site preparation, except insofar as resulting discharges might be contained in settling ponds and discharged through Discharge Points 002, 003, 004 or 005. Except for discharges through the above-mentioned Discharge Points, no such discharges are authorized by the Permit to be issued herein.

40. Weighing the evidence presented, including consideration of relevant information contained in Water Quality Criteria 1972 (Exhibit 26; Officially Noticed Document No. 5), the Council finds that the Construction Runoff Discharges as conditioned herein will not violate the Water Quality Standards relating to toxic, radioactive, or deleterious material concentrations or the Water Quality Standards relating to aesthetic values.

DISCHARGE FROM PROJECT OPERATIONS

41. Applicant has applied for a permit authorizing it to discharge into the Skagit River at Discharge Point 001 (NPDES Application, Section II), during project operations, three effluent streams, together with dilution water: cooling tower blowdown, low volume wastes, and fish rearing facility effluent. Said discharge is referred to herein as the "Project Discharge".

42. In addition, a temporary effluent stream associated with Project Discharge will consist of water utilized in the flushing and hydrostatic testing of systems as construction of each unit is completed. Prior to its discharge, the water so utilized will be retained in a settling basin for elimination of debris and for monitoring prior to release. The water when discharged will be essentially pure. The Draft NPDES Permit schedule addressing metal cleaning wastes should be titled "Hydrostatic Testing and Flushing Wastes" in order to correspond more closely with system operations. Because of the nature of the discharged wastes, limits for total suspended solids should be reduced to 10 mg/l.

43. Issuance of this permit should be conditioned upon preparation of and presentation to the Council of such written procedures and Council approval thereof prior to conduct of any hydrostatic testing and flushing operations, in accordance with the following condition:

> Prior to the conduct of hydrostatic testing and flushing operations, Permittee shall prepare and present to the Council written procedures to be followed in the handling thereof. These procedures shall be subject to Council acceptance, modification, or rejection. No such operations shall be conducted except pursuant to procedures approved by the Council.

44. Average values for water flow within the project are shown schematically on the diagram entitled "Schematic of Water Flow," which appears in the NPDES Application following Section I.

45. The Project will draw approximately 106 cubic feet per second of water for use in plant operations. Of the total Project intake, some 20 cfs will be utilized for dilution of blowdown and, as needed, utilized in the Applicant's proposed fish facilities. Blowdown from cooling tower operation will constitute approximately 7 cfs; total Project discharge, blowdown plus dilution, will

total 27 cfs. These figures are based upon operation of both Project units; the values may be halved to show one unit operations.

46. The water will be drawn into the Project by means of pumping from Ranney wells sunk near the river. Most of the water thus drawn will originate from the Skagit River; the remaining minority will be ground water.

47. Composition of plant intake water is expected to be essentially similar to the composition of Skagit River Water. Because ground water may constitute a portion of the Project intake, and because that water may be of slightly different composition from Skagit River water, the following condition should be made a part of any permit to be issued herein:

> Following installation of Ranney wells, and prior to Plant operations, at the earliest time when well intake water composition can be expected to be equivalent to intake during plant operations, Permittee shall conduct base line water quality studies equivalent to those heretofore conducted on Skagit River water. Results of such study or studies shall be made available immediately to the Council. If intake water differs in quality or composition from Skagit River water as described in conjunction with the Application, effects of such difference upon discharge shall be described. If such a difference appears, the Council may require that a new application be filed, require that water treatment or other regulatory steps be taken, or take such other steps as it may deem necessary to insure that discharge quality will be maintained within the parameters established within this Permit.

48. Skagit River temperature and flow vary markedly on a seasonal basis. Exhibit 5.3 presents United States Geological Survey data on a natural temperature and flow variations in the Skagit River near the proposed diffuser location.

49. The Skagit River, at the point of discharge, is classified as Class A water under the Water Quality Standards. Exhibit 5.1A presents a summary of Skagit River water quality information. Questions concerning a few of the data presented on Exhibit 5.1A were raised, discussed and resolved by witness Houghton. Skagit River water quality information presented in the column entitled "Skagit River Analysis" on Certification Application Table 125(10) 05 as supplemented by the information in the column entitled "River Water" on Exhibit 5.2 are the maximum values expected to be observed in the Skagit River.

50. The highest temperature of the Project Discharge is calculated to be 70° Fahrenheit under summertime conditions and 50° Fahrenheit under wintertime conditions. The maximum temperature

difference (Delta T) between the discharge and the Skagit River will be 6° Fahrenheit under summer operating conditions and 16° Fahrenheit under winter operating conditions.

51. Certification Application Figure 125(7)-1 presents the results of a hydrographic study of the bottom of the Skagit River in the vicinity of the proposed diffuser location.

(a) The Project Discharge pipeline to Discharge Point 001 is proposed to terminate in a diffuser on the bed of the Skagit River as shown on Exhibit 6. It will be located midway between monuments N-4 and N-3 shown on Certification Application Figure 125(6)-1 and is proposed to consist of a 30-inch diameter pipe, 65 feet long, partially buried, with 44, 4-inch diameter ports, spaced on 1-1/2 - foot centers, designed to angle the discharge at 60° above the river bottom.

(b) The results of calculations of diffuser performance presented through Exhibits 7, 8, 9 and 10 as described in testimony represent the best available technology for making such predictions. The calculations are a conservative prediction of the mixing that will actually occur through diffuser operation.

(c) Questions were raised at the hearing concerning prior unsuccessful attempts to locate pipelines in the river bed at this point. Applicant offered on the record to investigate the circumstances of the events alluded to and to review its proposed diffuser design in light of the results of that investigation. The Council should condition the grant of permit and certification herein applied for upon satisfactory demonstration by the Applicant that its design plans remain viable and feasible in light of its investigation, in accordance with the following condition:

> The Permittee shall prepare and present to the Council, prior to the discharge of any effluent at Discharge Point 001, first, the results of its investigation concerning pipelines laid in the bed of the Skagit River near the proposed diffuser site and which may have been damaged or destroyed by the action of the river or objects carried therein, and second, a review of Applicant's diffuser design in light of the results of the aforementioned investigation in such detail as will permit the Council to evaluate the diffuser design in view of potential river hazards, and third, a summary of any engineering or design changes in such detail as may enable the Council to review their effectiveness. No discharge shall be made at Discharge Point Serial No. 001 until the above information has been received and approved by the Council. The Council reserves the right to require amendments to the design plan before, during or after any discharge period.

(d) Prior to operation of the proposed diffuser, Applicant should be required to present a detailed operational plan for its response to conditions resulting in physicial impairment or loss of the diffuser. The plan should include provision for monitoring the diffuser so that Applicant will be immediately and effectively advised of any such impairment or loss, in accordance with the following condition, which should be made a part of any permit to be issued herein:

> The Permittee shall prepare and present to the Council, prior to the discharge of any effluent at Discharge Point Serial No. 001, information showing the establishment and maintenance of a monitoring system which will enable it to determine whether the diffuser is in place and operating properly. No discharge shall be made until the information concerning the plan has been reviewed and accepted by the Council. The Council reserves the right to require amendments to the monitoring system before, during or after any discharge. If the diffuser is lost or damaged for whatever reason or cause in any manner adversely affecting the mixing of the effluent the Permittee shall immediately notify the Council and discharge, except from the fish rearing facility, shall cease at the earliest physically and technically possible moment, and shall not again begin until the Permittee has satisfied the Council that the diffuser has been replaced or repaired in such manner as will insure efficient mixing of the effluent; provided that the Council may temporarily waive the requirement that the discharge cease if the Council determines that protection of the overall public interest and welfare will be served and damage to the environment will be minimal.

(e) As conditioned above, the diffuser design selected is an effective and satisfactory method to mix the Project Discharge with waters of the Skagit River as quickly as possible.

52. The testimony of witness Houghton and data presented in Sections 135(2) and 135(4) of the Certification Application describe the aquatic biota present in the Skagit River in the vicinity of Discharge Point 001.

53. Applicant has presented sufficient information on the physical characteristics of the Skagit River, including river hydrology, water levels, temperature, flow and the topography of the bed and the banks of the river, and on the aquatic biota of the river, to allow a thorough consideration and adequate evaluation of potential effects of Project Discharge on the environment.

54. The cooling tower blowdown effluent stream arises because of the need to blowdown the recirculated cooling water system. Materials, including heavy metals, naturally present in the Skagit River will be concentrated by the operation of the cooling towers to some 12 times the values of their presence in river water. Because the blowdown of 3.5 cfs per unit will be diluted by a stream of 10 cfs per unit, the ratio of concentration of a naturally present constituent in the Project Discharge to its concentration in Skagit River water is approximately 3.85:1. Sulphyric acid will be added to the recirculated cooling water system for control of scaling and pH values. Sodium hypochlorite will be added to prevent biological growth in the system. No discharge of materials added for corrosion inhibition should be permitted, per the following condition, which should be added to the permit to be issued herein:

> No discharge of materials added for corrosion inhibition, including but not limited to zinc, chromium, and phosphorous, is permitted.

55. Testimony at the hearing indicated that Applicant could and would meet a condition that no supplemental biocides except as described herein shall ever be used or discharged in connection with Discharge Point Serial No. 001. The following condition should be inserted within the Permit.

> No supplemental biocide, other than sodium hypochlorite solution as described in the Application, will ever be used or discharged in connection with or from Discharge Point Serial No. 001.

56. The addition of the sodium hypochlorite to the recirculating cooling water will be accomplished in such a manner that the concentration of free available chlorine will reach a level of 0.5 mg/l (maximum) and 0.2 mg/l (average) at the condenser exit. Because there will be no further addition of chlorine or chlorine compounds between the condenser exit and the cooling tower basins, and because any chlorine added will decay chemically prior to discharge, Federal Standards of Performance of free available chlorine will not be exceeded. The chlorination schedule proposed by Applicant assures compliance with the Federal Standard of Performance prohibiting the discharge of free available chlorine or total residual chlorine from any one unit for more than two hours in any one day or from more than one unit at any one time.

57. Applicant's proposed method of and schedule for chlorination will result in a maximum concentration of total residual chlorine of 0.09 mg/l in the Project Discharge at the diffuser site. This calculation is based upon a concentration of ammonia in the raw water makeup to the cooling tower of 0.31 mg/l, its highest recorded level in Skagit River water. Using a less extreme value of ammonia in the raw water makeup, or 0.1

mg/l, the resulting concentration of total residual chlorine in the Project Discharge at the diffuser is calculated to be 0.03 mg/l, which level is shown on Exhibit 5.2. Monitoring should be continuous during discharge according to the following condition:

> Continuous recording of total residual chlorine at a location downstream of the junction of all streams that make up the Project Discharge, during periods of active chlorination and thereafter until total residual chlorine reaches an undetectable level, is required.

58. Testimony of Applicant's witness, Dr. Chakravorti, established that an appropriate parameter for effluent limitations concerning chlorine would be that of total residual chlorine, which term includes free available chlorine. The witness further testified that at no time would the total residual chlorine level (including free available chlorine) exceed .09 mg/l at the point of discharge. The Permit to be issued herein should establish that limitation according to the following condition:

> The maximum concentration of total residual chlorine at the outfall shall not exceed 0.09 mg/l at any time.

59. The low-volume waste stream consists of effluent from the raw water pretreatment system, comprising clarifier blowdown, filter backwash water demineralizer regeneration waste water, and plant facility floor drainage. Solid wastes therein shall not be added to Project Discharge.

60. Updating of flow figures based on Applicant's submissions requires modifications of low volume waste figures shown in the Draft NPDES Permit. These changes shall be reflected in the Permit to be issued herein at Page 4 of Appendix C, attached hereto and by this reference made a part hereof.

61. Contributions of the fish facility effluent to the Project Discharge are quantified on Exhibit 15. Maximum fish facility utilization, expressed in fish population by weight, will be 70,170 pounds, rather than the 50,000 pounds assumed in the formulation of Schedule B of the Draft NPDES Permit. Consequently, using the factors shown on Exhibit 16 to calculate total suspended solids in the effluent based on pounds of fish present, total suspended solids identified in the Draft NPDES Permit should be amended to read as follows: Daily average, 1,544 pounds per day; daily maximum 2,035 pounds per day.

62. Limitations relating to fish rearing facility effluent, set forth in Schedule B of the Draft of NPDES Permit, are based on current State and Federal agency practice relating

to such discharges with the exception of the limitation on biochemical oxygen demand (BOD). In accordance with the recommendation of the Washington State Department of Ecology, the limitation on BOD should be deleted. The Council notes that no effluent imitations or standards have been promulgated by the U. S. Environmental Protection Agency for fish rearing facilities. Modifications should be made in Schedule B as follows:

The term "cleaning effluent" should be deleted and the lines thereunder relating to suspended and settleable solids combined with other lines within the schedule relating to such parameters. Settleable solids should be monitored weekly; grab samples will provide sufficient and adequate indication of effluent composition. Specific provision should be made to allow discharge of dilution water not contaminated with plant effluent. Raceway and pond sludge should be treated as solid wastes and disposition thereof should be made under Permit provisions for solid wastes. Temperature of water discharged into the fish facility should not exceed the lowest temperature of recirculated cooling water prior to addition of makeup water.

The limitations and conditions remaining on Schedule B after deletion of the BOD limitation, and the above modifications, are appropriate and are those necessary to comply with the Water Quality Standards and to carry out the provisions of the Federal Water Pollution Control Act.

63. Certification Application Table 125(10)-5 as supplemented by Exhibit 5.2, lists the maximum concentrations of various constituents which will be present in the Project Discharge.

64. The only potential source of coliform bacteria in the Project Discharge will be from intake water. Considering all of the factors involved, including the degree of dilution achieved by the diffuser at the edge of the mixing zone, the discharge will not violate the Water Quality Standards regarding coliform bacteria levels, subject to final determination of intake water composition per Finding of Fact No. 47 and the condition therein.

65. Considering the lowest levels of dissolved oxygen in the Skagit River and in the Project Discharge, and considering the degree of dilution achieved by the diffuser at the edge of the mixing zone, the discharge will not violate the Water Quality Standard for dissolved oxygen.

66. The concentration of dissolved gas in the Project Discharge will not exceed 110 percent of saturation. The Water Quality Standard for total dissolved gas will not be violated.

67. Considering the maximum temperatures of the Project Discharge and of the Skagit River in summer months, the maximum temperature of the Project Discharge and the minimum temperature

of the Skagit River in winter months, and considering the degree of dilution calculated to be achieved by the diffuser at the edge of the mixing zone, the Water Quality Standard for temperature will not be violated.

68. The pH value of each constituent stream of the Project Discharge is required by terms of the Draft NPDES Permit to be in the range of 6.5 to 8.5. Considering the pH values in the Project Discharge, this discharge will not violate Water Quality Standards or the Federal Standards of Performance relating to pH. Applicant should be required to monitor pH according to the following condition, which should be inserted into the Permit to be issued herein:

> Permittee shall include an alarm system for pH control to provide an indication of any variance from established limits.

69. Considering the methods and facilities to be used in the Project for control of effluent streams, the design of the Project is adequate to assure compliance with Federal Standards of Performance relating to pH, low volume waste sources, metal cleaning wastes, and heat. Provisions of the NPDES Permit include these standards and Applicant is required to comply therewith.

70. Because maximum levels of total suspended solids within the Project Discharge will under most conditions be less than the levels of total suspended solids occurring naturally in the Skagit River, and because the Project Discharge will be released into the river from a diffuser located on the bed of the river, the Project Discharge will not violate Water Quality Standards relating to aesthetic values, either within or without the mixing zone described in the Draft NPDES Permit.

71. The Project has been designed so that no liquid radioactive waste will be contributed to Project Discharge and discharged into the Skagit River. A portion of the gaseous radioactive waste emitted by the Project, however, will pass through the cooling towers, and a portion of such material will enter the cooling tower blowdown and subsequently constitute a constituent of liquid Project Discharge into the Skagit River. This phenomenon was described by Applicant's witness, Mr. Tosetti.

72. Estimates of the magnitude of this phenomenon were presented. Exhibit 18 shows calculated increases in various radioactive concentrations. Exhibit 19 shows calculated resulting radioactive dose associated with the phenomenon.

73. The amount of radioactive material which can be expected to be entrained by the cooling towers is calculated and expected to be negligible. The release of such entrained radioactive material to the Skagit River will not adversely affect the populations of aquatic and terrestial species. Any permit to be issued herein should be conditioned as follows:

When plant operation commences the Permittee shall make and report to the Council an analysis to determine the levels of entrained radioactive material being released into the Skagit River.

74. To reflect the fact that no liquid radioactive waste will be added to Project Discharge into the Skagit River, the following sentence should be added at the end of General Condition No. G-2 of the Draft NPDES Permit:

No liquid radioactive waste shall be added to Project Discharge.

This further condition assures that no waste will be discharged into the Project Discharge from the Project's liquid radioactive waste treatment system.

75. Radioactive wastes which might be added to Project Discharge through cooling tower operation were identified and quantified by Applicant's witness Tosetti, who stated that they would not exceed specified levels. Those levels should be incorporated into the Permit to be issued herein as a condition to its issuance, as specified below:

The radiological waste materials contained in the discharge from discharge point Serial Number 001, which are attributable to plant operation, shall never exceed the following calculated levels:

Isotope	Annual Average Release From Plant (Ci/yr)	Annual Average Release From Cooling Tower (Ci/yr)	Annual Average Concentration At Cooling Tower Discharge (μCi/cc)	Annual Average Concentration Project Discharge (μCi/cc)	Annual Average Concentration After Mixing (μCi/cc)
Mn-54	1.8E-6	1.71E-7	3.30E-14	7.4E-15	1.2E-17
Mn-56	2.3E-3	5.9E-6	1.13E-12	2.5E-13	4.1E-16
Fe-59	3.6E-6	3.29E-7	6.32E-14	1.4E-14	2.3E-17
Co-58	2.3E-4	2.13E-5	4.10E-12	9.2E-13	1.5E-15
Co-60	2.3E-5	2.19E-6	4.22E-13	9.5E-14	1.5E-16
Sr-89	1.0E-4	9.18E-6	1.77E-12	4.0E-13	6.3E-16
Sr-90	7.8E-6	7.41E-7	1.42E-13	3.2E-14	5.1E-17
Mo-99	7.8E-4	3.26E-5	6.30E-12	1.4E-12	2.3E-15
Ru-103	6.8E-7	6.17E-8	1.19E-14	2.7E-15	4.3E-18
Ru-106	8.7E-8	8.27E-9	1.59E-15	3.6E-16	5.7E-19
Cs-134	5.5E-6	5.23E-7	1.01E-13	2.3E-14	3.6E-17
Cs-136	3.6E-6	3.01E-7	5.80E-14	1.3E-14	2.1E-17
Cs-137	8.2E-6	7.79E-7	1.50E-13	3.4E-14	5.4E-17
Ba-140	3.1E-4	2.57E-5	4.94E-12	1.1E-12	1.8E-15
I-131	2.3E-2	1.78E-3	3.42E-10	7.7E-11	1.2E-13
I-133	8.4E-2	1.53E-3	2.94E-10	6.6E-11	1.1E-13
H-3	4.84	4.60E-1	8.86E-8	2.0E-08	3.2E-11

76. In view of the extremely minute incremental doses associated with cooling tower operation in comparison to the guideline doses established by the Nuclear Regulatory Commission as a result of the "as low as practicable" hearings (Option of the Nuclear Regulatory Commission, Docket No. RM-50-2, April 30, 1975; Officially Noticed Document No. 11), the concentrations of radioactive materials as conditioned in Finding of Fact Nos. 73, 74 and 75 and the Permit to be issued herein, are the lowest practicable concentrations attainable and will not violate Water Quality Standards relating to radioactive concentrations.

77. The Council received conflicting testimony regarding the effect on the Skagit River aquatic environment of materials present in the Project Discharge which may be potentially toxic or deleterious. Intervenor's witness, Dr. Brubaker, testified that the chlorine, zinc and temperature components of the Discharge were capable of causing acute biological shock to aquatic organisms. In contrast, applicant's witness, Dr. Houghton, testified that such a condition was extremely unlikely.

78. This difference of opinion appears largely attributable to different assumptions of the witnesses concerning the probable time to which the aquatic biota would be exposed to given concentrations of the Project Discharge. Dr. Brubaker assumed a relatively lengthy exposure; Dr. Houghton assumed a much shorter exposure period. Length of the period of exposure is an important factor in evaluating the effect of a constituent or of constituents on biota.

79. The Council finds that the period of exposure of biota to undiluted or slightly diluted Project Discharge will ordinarily be on the order of seconds or minutes, and not on the order of hours or days. Downstream migrant fish may be subjected to minutes of exposure to the Project Discharge, during which time the Discharge is being diluted from full strength to 5 percent solution with Skagit River water. The diffuser and its discharge will not be a substantial barrier to fish moving upstream. The Council finds that relatively small numbers of fish, in comparison with river population, may be expected to become attracted to the mixing zone because its temperature will be higher than the ambient river temperature. Because of the velocities and the physical and chemical characteristics of the discharge, river flow velocities during periods when the water is coldest and temperature attraction might be greatest, and the relatively small proportion of the river occupied by the mixing zone, the Council finds that the period of exposure for this small number of fish will be far shorter than the hours or days assumed in Dr. Brubaker's testimony. The Council finds that the analysis presented by Dr. Houghton corresponds much more closely to conditions which will be actually experienced than does the analysis presented by Dr. Brubaker.

80. The precise nature of outfall attraction, if any, appears unknown. So that effects of operation of the discharge

may be fully known and properly evaluated, the following condition should be incorporated into any permit to be issued herein:

> During any period of discharge at outfall point 001, the Council may in its discretion require Permittee to conduct surveys to assess the nature and extent of attraction, if any, which the discharge plume may pose to aquatic organisms. Such surveys shall be conducted by state-of-the-art methods; precise method and timing of the surveys shall be proposed by the Permittee subject to Council approval. If the results of such surveys demonstrate that a significant hazard is posed to the aquatic biota, the Council may take such action as it deems necessary, including but not limited to requiring suspension of discharge until harmful conditions are eliminated.

81. Washington State Water Quality Criteria and Standards contained in WAC Chapter 173-201 do not permit the discharge of effluents in concentrations sufficient to cause acute biological shock either outside the mixing zone or inside. Condition G-4 of the Draft NPDES Permit to be issued herein should be modified to prohibit the discharge of effluent in concentrations sufficient to cause acute biological shock inside the mixing zone.

82. Applicant has not conducted standard 96-hour LC50 tests utilizing discharged effluent, receiving waters, and the most sensitive important species of aquatic life. The following provision should be entered into any permit to be issued herein as a condition to its grant:

> Upon full operation, and yearly thereafter, Applicant shall conduct tests indicating effects of Project Discharge upon the most sensitive significant aquatic species. The specific tests to be conducted shall be proposed by the applicant subject to approval of the Council. If these tests indicate that damage to the aquatic biota is a potential effect of discharge operation, the Council may require such modifications of discharge operation as will, in the Council's judgment, effectively protect the ecosystem, and may suspend or cancel portions of this Permit until discharges are shown to be in full compliance with all terms and conditions herein.

83. As conditioned as described above in Finding of Fact No. 82. the constituents of the Project Discharge, either singly or in combination, will not adversely stress the aquatic biota to any significant degree. In view of the conditions expressed above, and weighing the evidence presented, the Council finds that a condition of acute biological shock, as that term is defined in the Water Quality Standards, will not exist either

within or without the mixing zone specified in the Draft NPDES Permit for the Project Discharge.

84. Considering the evidence relating to the nature of the Project Discharge and its effects on the aquatic biota, including consideration of the relevant information contained in Water Quality Criteria 1972 (Exhibit 26; Officially Noticed Document No. 5), and the evidence on the suitability of the water of the Skagit River downstream of the point of discharge for use as a supply of drinking water, and considering the conditions referenced in the above Findings of Fact, Water Quality Standards for toxic and deleterious material will not be violated.

85. The mixing zone relating to the Project Discharge is described in the Draft NPDES Permit. Considering the characteristics of the Skagit River at the point of discharge and the fish populations and biota present in or which could be expected to make use of or pass through the reach of the river in the vicinity of the mixing zone, and considering the anticipated effect of the Project Discharge on fish and biota with the condition as described in Finding of Fact No. 80, above, the Council finds that the mixing zone is limited to a size which will not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem and which will not diminish other beneficial uses disproportionately.

86. Considering the quality and characteristics of the Skagit River and the constituents of the Project Discharge and their concentrations and potential effects, and conditions to be placed upon discharge releases, and weighing all the evidence, the Council finds that the Project Discharge will not cause the Skagit River to fail to meet or exceed the requirements for all or substantially all of the uses appropriate to Class A water.

87. Condition G-7 in the Draft NPDES Permit requires the Applicant to notify the Council and, under some circumstances, seek a new and revised NPDES Permit, whenever Applicant anticipates a facility expansion, production increase, or process modification affecting its effluent discharges. The Council believes that potentially, other circumstances may be anticipated which may affect Project Discharges, and that the requirement of notification to the Council and, if necessary application for new NPDES Permit, should be required under any such circumstances. Condition G-7 in the Draft NPDES Permit should be modified to read as follows:

> a. Whenever a facility expansion, production increase, process modification or other action, event or occurrence is anticipated which will result in a new or increased discharge, or which will cause any of the conditions of the Permit to be exceeded a new NPDES Application must be submitted, together with the necessary reports and engineering plans for the proposed changes. No such change shall be

made until plans have been approved and a new permit or permit modification has been issued.

b. Permittee shall notify the Council of any anticipated action event or occurrence which shall affect or modify the nature, character, composition, or constituents of effluent discharges prior to the action, event or occurrence even though, to the best of Applicant's knowledge or belief, such action, event or occurrence shall not result in violation of effluent limitations specified in this Permit. The Council may in its discretion waive notification of recurring or insignificant changes.

88. Data resulting from monitoring activities and results may have considerable value for the establishment of patterns, and it appears to the Council that the Draft Permit requirement in Condition G-15 that Permittee shall retain records of monitoring activities and results for a minimum three-year period may be insufficient for the establishment of such patterns. Consequently, the Council should modify Condition G-15 of the Draft NPDES Permit to require Permittee to retain all records of monitoring activities and results for a minimum five-year period.

89. It appears to the Council that Condition G-9 of the Draft NPDES Permit constitutes a substantial redundency of terms stated within Condition G-12. Condition G-9 of the Draft NPDES Permit shall be stricken, and non-redundant terms included in G-12, as follows:

If, for any reason the Permittee does not comply with or will not be able to comply with, any daily maximum effluent limitations specified in this permit, the Permittee shall:

(a) Immediately take action to stop, contain, and clean up the unauthorized discharge and correct the problem.

(b) Provide the Council with the following information, in writing, within 48 hours of becoming aware of such condition:

(1) A description of the discharge and cause of noncompliance; and

(2) The period of noncompliance, including dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

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.

COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT

90. In May, 1975, pursuant to the Washington State Environmental Policy Act of 1971 [referred to herein as SEPA; RCW Chapter 43.21C] and pursuant to the Council's regulation implementing that act (WAC 463-08-024), the Council issued its Draft Environmental Impact Statement on the Project, for the purposes both of this proceeding and the Site Certification proceeding. Public notice was given of the availability of said Draft Statement, and the Draft Statement was distributed and made available, and comments were solicited and received, all in full compliance with SEPA and with the Council's regulation.

91. Thereafter, also during May, 1975, the Nuclear Regulatory Commission (NRC) issued its Final Environmental Statement regarding Applicant's Proposed Project (NUREG-75/05-5, referred to herein as "NRC FES") pursuant to the National Environmental Policy Act of 1969 (42 USC 43.21).

92. The Council recognizes that Chapter 206, Laws of Washington, 1975 First Extraordinary Session, amended SEPA (RCW 43.21C.150) effective June 16, 1975, eliminated the Council's obligation to prepare its own Environmental Impact Statement and authorized the Council to use the NRC FES instead. Notwithstanding this change in law, the Council, in the interests of a complete evaluation and review of potential environmental impacts of the Project and full compliance with all of the policies and procedures of SEPA, both in this proceeding and in the companion Site Certification proceeding, made the decision to prepare its own final Environmental Impact Statement on the Project, which it would consider along with the NRC FES.

93. Accordingly, the Council, taking into account all comments received on its Draft Environmental Impact Statement, prepared its own final Environmental Impact Statement on the Project, which Statement was approved by the Council on November 24, 1975. Public notice was given of the availability of this final Environmental Impact Statement, and the Statement was distributed and made available in full compliance with SEPA and the Council's regulations.

94. Prior to reaching its decision in this proceeding, the Council has carefully reviewed and considered its final Environmental Impact Statement concerning this Project, as well as the NRC FES, and all of the information set forth therein. In addition, the Council has carefully considered and weighed all of the factors

specified in SEPA in the light of the policies of that Act and those set forth in RCW Chapter 90.48, RCW Chapter 80.50, and the Federal Water Pollution Control Act.

95. The Council recognizes that, by virtue of RCW 90.48.262(2), the NPDES Permit issued in this proceeding will not become effective until the Council has arrived at a decision concerning its recommendations to the Governor of the State of Washington in the Site Certification proceeding, and then only if the Governor approves the Application for Site Certification and executes a Certification Agreement pursuant to RCW 80.50. Thus, the Council considers these two proceedings integrally related for the purposes of SEPA.

ADDITIONAL FINDINGS

96. The Draft NPDES Permit as modified by the changes noted in the above Findings is hereinafter referred to as the "Permit" and a copy is attached hereto as Appendix C.

97. The discharges authorized by the Permit which will result from the construction and operation of the Project will not violate the applicable Water Quality Standards of the State of Washington. These Standards have been approved by the United States Environmental Protection Agency pursuant to the FWPCA.

98. The discharges authorized by the Permit resulting from the construction and operation of the Project will comply with the applicable provisions of Sections 301, 302, 306 and 307 of the FWPCA.

99. The Permit applies and ensures compliance with all applicable effluent limitations under Sections 301 and 302 of the FWPCA, all applicable standards of performance for new sources under Section 306 of FWPCA, and all applicable effluent standards, effluent prohibitions and pretreatment standards under Section 307 of FWPCA, all limitations necessary to meet and implement the Water Quality Standards of the State of Washington, and, with respect to the fish rearing facility, all conditions which the Council has determined to be necessary to carry out the provisions of FWPCA.

100. The provisions, limitations and conditions of the Permit will assure protection of public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreation activities in and on the water of the rivers, creeks and waters that will receive or be affected by the discharges from the Project.

101. The Permit, issued for a period of five years from the date of issuance, is sufficient, adequate and appropriate for the Project and for the regulation of discharges authorized by the Permit. It will establish limitations and conditions upon those discharges in full compliance with the procedures, requirements and policies of the FWPCA, including but not limited to

Section 402 thereof, and the requirements and policies of RCW Chapter 90.48 and RCW Chapter 80.50, and of all applicable regulations issued pursuant to said laws.

From the foregoing Findings of Fact, the Council makes and enters the following Conclusions of Law:

CONCLUSIONS OF LAW

1. The Washington State Thermal Power Plant Site Evaluation Council has jurisdiction over the subject matter of this application and the parties to this proceeding.

2. The Council's draft Environmental Impact Statement referred to in Finding of Fact No. 90 was an adequate draft environmental impact statement and the Council's final Environmental Impact Statement referred to in Finding of Fact No. 93 is an adequate final environmental impact statement.

3. The discharges authorized by the Permit which will result from the construction and operation of the Project will not violate the applicable Water Quality Standards of the State of Washington. These Standards have been approved by the United States Environmental Protection Agency pursuant to the FWPCA.

4. The discharges authorized by the Permit resulting from the construction and operation of the Project will comply with the applicable provisions of Sections 301, 302, 306 and 307 of the FWPCA.

5. The Permit applies and ensures compliance with all applicable effluent limitations under Sections 301 and 302 of the FWPCA, all applicable standards of performance for new sources under Section 306 of FWPCA, and all applicable effluent standards, effluent prohibitions and pretreatment standards under Section 307 of FWPCA, all limitations necessary to meet and implement the Water Quality Standards of the State of Washington, and, with respect to the fish rearing facility, all conditions which the Council has determined to be necessary to carry out the provisions of FWPCA.

6. The conditions and terms of the Draft NPDES Permit as modified in accordance with the Findings of Fact herein are reasonable and necessary conditions and terms for the maintenance of current State and Federal standards applicable by law, rule or regulation of effluent discharges and for maintenance of the ecological environment of the State of Washington.

7. The Council is authorized to, and may properly issue to the applicant, an NPDES Permit for the Project in the form of the Permit attached hereto as Appendix C, for a period of five years from the date of its issuance.

8. The Permit identified in Conclusion of Law No. 7, above, and the discharges authorized by said Permit, will be in

compliance with all applicable Federal and State laws, rules and regulations.

9. The Council is authorized to and may properly issue to the Applicant a Certificate in accordance with Section 401 (33 USC 1341) of the Federal Water Pollution Control Act (FWPCA; 33 USC 1251) stating that any discharge from the construction or operation of the Skagit Nuclear Power Project will be undertaken in compliance with the Permit issued herein, will comply with the applicable provisions of Sections 301, 302, 306 and 307 of the FWPCA and will not violate the applicable Water Quality Standards of the State of Washington as approved by the United States Environmental Protection Agency pursuant to the FWPCA.

From the foregoing Findings of Fact and Conclusions of Law, the Council makes and issues the following Order:

O R D E R

WHEREFORE, IT IS HEREBY ORDERED, That the application of Puget Sound Power & Light Company for an NPDES Permit authorizing the discharge of pollutants from the construction and operation of the Skagit Nuclear Power Project shall be, and the same is hereby, granted, SUBJECT TO the conditions and limitations set forth in the Permit attached hereto as Appendix C and by this reference made a part hereof.

IT IS FURTHER ORDERED That said Permit be issued forthwith for a term of five (5) years from the date of its issuance.

IT IS FURTHER ORDERED That a Certificate be issued forthwith to the Applicant in accordance with Section 401 (33 USC 1341) of the Federal Pollution Control Act (FWPCA; 33 USC 1251) stating that any discharge from the construction or operation of the Skagit Nuclear Power Project undertaken in compliance with the Permit issued herein will comply with the applicable provisions of Sections 301, 302, 306 and 307 of the FWPCA and will not violate the applicable Water Quality Standards of the State of Washington as approved by the United States Environmental Protection Agency pursuant to the FWPCA, and that the conditions and limitations of the NPDES Permit issued pursuant to this Order assure such compliance and nonviolation.

ENTERED this 26th day of January 1976.

WASHINGTON STATE THERMAL POWER PLANT
SITE EVALUATION COUNCIL

By _____
THOMAS C. STACER
Acting Chairman

Approved for Entry:

_____
DARREL PEEPLES
Assistant Attorney General

TPPSEC

Application No. 74-1 (Skagit)

NPDES Permit and Section 401 Certification Hearing

EXHIBITS

Number	Description	Identified	Admitted
1.1	Resume of Fredrick M. Berthrong	1:25	1:57
1.2	Resume of Jonathan P. Houghton	1:26	3:549
1.3	Resume of Allyn H. Seymour	1:26	8:1592
1.4	Resume of Bronislaw S. Shicker	2:412	2:412
1.5	Resume of Herbert H. Druebert	3:541	3:542
1.6	Resume of Ranjit K. Chakravorti	5:919	5:920
1.7	Resume of Barry A. Scott	6:1045	6:1066
1.8	Resume of Richard J. Tosetti	7:1304	7:1306
2	Map entitled Plant Site Creeks	1:26	1:83
2A	Aerial Infrared Photograph of Plant Site Area, taken June 1974	1:26	4:753
2B	Black and White Photograph of the Skagit River Proposed Diffuser Site	1:27	3:683
2C	Oblique Aerial Photograph of Pipeline and Transmission Crossings taken April 28, 1975	3:681	3:683
2D	Oblique Aerial Photograph of River Channel, taken April 28, 1975	3:681	3:683
3	Map entitled Storm Runoff Discharge Points 002 to 005	1:27	1:83
4	Diagram entitled Sediment Retention Barrier Details	1:28	1:93
5.1	Skagit River Water Quality Information	1:28	4:750
5.1A	Skagit River Water Quality Information (revised)	4:735	4:750

Number	Description	Identified	Admitted
5.2	Supplemental Water Quality Parameters	1:28	4:750
5.3	Natural Temperature and Flow Variations in the Skagit River Near the Proposed Diffuser Location	1:28	4:750
5.4	Timing of Salmon and Searun Trout, Fresh Water Life Phases in Skagit Basin	1:29	4:750
5.5	Summary of Dames & Moore Water Quality Data	7:1275	7:1277
6	Skagit River Cross-section at Diffuser	1:29	6:1066
7	Average Dilution, 10-year, 7-day Low River Flow, 4740 cfs	1:29	6:1066
8	Summer Conditions, 10-year, 7-day Low River Flow, 4740 cfs	1:29	6:1066
9	Winter Conditions, 10-year, 7-day Low River Flow, 4740 cfs	1:30	6:1066
10	Dilution of Project Discharge in Skagit River	1:30	6:1066
11	Map entitled Bechtel, Location of Water Well Springs, TPPSEC Fig. L-7	1:288	1:302
12	Large Scale photograph introduced by Helen Day	1:289	1:302
13	Mr. Blohm's drawing of Diversion Channel Cross-section	2:471	2:477
14	Dr. Houghton's sketch for illustrative purposes of Upper Tank Creek	3:598	3:659
15	Fish Facility Contribution to the Project Discharge	5:854	5:877
16	Memorandum, Mr. Roy Nakatani, a two-page document	5:855	5:877
17	Model for Radioactive Gaseous Effluent Pathway to Project Discharge	7:1304	7:1323

Number	Description	Identified	Admitted
18	Incremental Increase in Radioactivity Due to Project Offgas to Cooling Tower to Skagit River Pathway	7:1304	7:1342
19	Incremental Dosage to Man Due to Project Offgas to Cooling Tower to Skagit River Pathway	7:1304	7:1339
20	Guidelines for the Establishment of Dilution Zones	6:1173	7:1221
21	Industrial General Conditions	6:1173	7:1221
22	Municipal General Conditions	6:1173	7:1221
23	Excerpts from "Fisheries Handbook of Engineering Requirements and Biological Criteria" by Milo C. Bell, Fisheries-Engineering Research Program, Corps of Engineers, North Pacific Division, Portland, Oregon, February, 1973	Late-filed exhibit 7:1435	7:1435
24	Letter dated May 30, 1975 from Attorneys for Applicant to Wayne L. Williams, Counsel for the Environment, and attached table entitled "Supplemental Total Coliform Data from the Skagit River"	Late-filed exhibit 8:1563-64, 1567	
25	Pages 77-83 from Battelle publication "Pacific Northwest Laboratory Annual Report for 1973 to the USAEC Division of Biomedical and Environmental Research," January, 1974	Late-filed exhibit by SCANP	
26	Additional pages from "Water Quality Criteria 1972"	Late-filed exhibit by SCANP	

TPPSEC

Application No. 74-1 (Skagit)

NPDES Permit and Section 401 Certification Hearing

DOCUMENTS OFFICIALLY NOTICED

Number	Description	Identified	Noticed
1.	Applicant's NPDES Application dated April 4, 1974, as amended February 28, 1975	1:32-33	1:36
2.	The Draft NPDES Permit for the Skagit Project, as adopted by the Council at its meeting March 10, 1975	1:32-33	1:36
3.	Applicant's Application No. 74-1 for Site Certification for the Skagit Nuclear Power Project, as revised through Revision 7 Thereto, dated May 2, 1975	1:32-33	1:36
4.	39 Federal Register 36186-36207, October 8, 1974 (40 CFR 423, Steam Electric Power Generating Point Source Category) and 40 Federal Register 7095-7096, February 19, 1975 (correction to 40 CFR 423)	1:32-33	1:36
5.	The following pages from Water Quality Criteria 1972, A Report of the Committee on Water Quality Criteria, Environmental Studies Board, National Academy of Sciences, National Academy of Engineering, Washington, D. C., 1972: 126-129, 178, 180-182, 189	1:32-33	1:36
6.	Water Quality Standards for Waters of the State of Washington, WAC 173-201	1:32-33	1:36
7.	40 CFR 128, Pretreatment Standards (38 Federal Register 30982, November 8, 1973).	1:32-33	1:36

Number		Description	Identified	Noticed
8.		Letters from Department of Ecology (Sylvester) to Thomsen dated April 2, and April 23, 1975	1:32-33	1:36
9.		Publication entitled "Guidelines for Erosion and Sediment Control Planning and Implementation" issued by the U.S. Environmental Protection Agency, EPA R2-72-015, August 1972	1:119-20	1:123
10.	A.	Agenda and Minutes for the Following meetings of the Council: (1) January 27, 1975--agenda item 5 (2) February 18, 1975--agenda item 6 (3) February 24, 1975--agenda item 5 (4) March 10, 1975--agenda item 5		
	B.	The Following letters from Attorneys for Applicant: (1) February 25, 1975 to Alfred G. Rode and Roger M. Leed (2) February 28, 1975 to the Council (3) March 5, 1975 to the Council (4) March 15, 1975 to Roger M. Leed		
11.		Opinion of the Nuclear Regulatory Commission, Docket No. RM-50-2, April 30, 1975	6:936-37	6:937
12.		Publication entitled "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Steam Electric Power Generating Point Source Category" issued by the U.S. Environmental Protection Agency, EPA 440/1-74 029-a, October 1974	6:936-37	6:937
13.		NPDES Permit for WPPSS Nos. 1 and 4 (Hanford): (a) as approved April 28, 1975, and (b) as amended July 14, 1975	6:1174-76	6:1175
14.		Draft NPDES Permit for WPPSS Nos. 3 and 5 (Satsop), as adopted (tentative determination) February 24, 1975	6:1174-76	6:1175