

August 28, 1995

Jason Zeller, EFSEC Manager
Washington Energy Facility Site Evaluation Council
P.O. Box 43172
Olympia, WA 98504-3172 VIA FAX: 206-956-2158

Re: Satsop Combustion Turbine
 NPDES Draft Permit No. WA-002496-1

Dear Mr. Zeller:

This letter constitutes Northwest Environmental Advocates' comments on the draft NPDES permit for the above-referenced facility. These comments are also submitted on behalf of the Renewables Northwest Project, Long Live the Kings, Friends of the Earth (Northwest Office), and Northwest Steelhead & Salmon Council (Trout Unlimited). We request that these comments be incorporated into the public hearing record of the evidentiary proceeding for the site certification application.

Delivered under separate cover at the 7:00 PM, August 17 public hearing in Elma, Washington, for incorporation into the evidentiary hearing record and these comments on the NPDES permit, was the document "Final Issue Papers," 1992-94 Water Quality Standards Review, Oregon Department of Environmental Quality, June 1995 (hereinafter "Issue Papers"). The sections of this document related to temperature and dissolved oxygen are pertinent to this application.

I. PUBLIC COMMENT PROCESS

The public comment process for this draft permit has been wholly inadequate. Permit conditions have been changing as the time for public comment has lapsed, the fact sheet prepared by the Council's consultants is seriously flawed, and important information which should have been available to the public was not available in the application, the draft permit, the fact sheet or even from the Applicant or the Council staff. Even as we prepare these comments, we are being told that the permit conditions are being revised. This is not acceptable.

A. Changing Permit Conditions

Regulations implementing the federal Clean Water Act (CWA) require that a draft NPDES permit contain the effluent limits and conditions required by 40 CFR 122.44(d). 40 CFR 124.6(d)(4)(v). The opportunity for public comment must be no less than 30 days. 40 CFR 124.10(b)(1). These two

requirements together ensure the public a full 30 days to evaluate a "real" draft that was intended by the agency to meet regulatory requirements. It also ensures that the public will not have to waste its time responding to draft permits which fail to meet regulatory requirements in a wholesale fashion.

Important permit conditions in the draft permit for this facility were changed without public notice prior to the end of the public comment process, thereby depriving the public of the opportunity to comment on the new proposals. For example, the load limits in the draft permit for ammonia were many orders of magnitude higher than should have been proposed. The fact that the Applicant realized this error was brought to the public's attention only one day prior to the close of the public comment period, in a verbal report given at the public hearing held in Elma, Washington. It is not clear whether a new load limit has now been proposed due to the excessively rapid speech of the speaker and information we have received from the Department of Ecology. Similarly, the changes -- which, as we understand it, may or may not be binding on the parties or the Siting Council -- in both water use by the project and temperature limits incorporated in the NPDES permit were not provided to the public in a timely or appropriate manner. NWEA only learned about these so-called settlements between the Applicant and the Washington Departments of Ecology and Fish & Wildlife in a telephone conversation with the Counsel for the Environment a few days prior to the end of the public comment period. We have also been told that the entire mixing zone analysis may be redone. Personal conversation with J.D. Smith.

The 30 day comment period required by law is seriously compromised when the Applicant is allowed to change the application and the permit writers for the regulatory agency are allowed to change the permit conditions during that time period. When, as in this case, the regulatory agency changes the terms of the draft permit during -- an apparently even after -- the 30-day public comment period, without notifying the interested public of the changes and extending the comment period by an additional 30 days, the public is deprived of the opportunity the law guarantees.

B. Inadequacy of Required Fact Sheet

The public notice requirements promulgated under the Clean Water Act (CWA) include the opportunity for the public to obtain a copy of the draft permit and the fact sheet. 40 CFR 124.10(d)(1)(iv). Each draft NPDES permit must be accompanied by this fact sheet. 40 CFR 124.6(e). A fact sheet must include the following information: 1) the principle facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit; 2) a brief description of the type of facility or activity; 3) a brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions; 4) reasons why any requested

variances or alternatives to required standards do or do not appear justified; 5) a description of the procedures for reaching a final decision on the draft permit; and 6) an explanation of the reasons why limitations to control toxic pollutants under Section 122.45(e) are applicable. 40 CFR 124.8.

The fact sheet prepared for this draft permit fails to put forth any "significant factual, legal, methodological and policy questions considered in preparing the draft permit." For example, the fact sheet does not present any factual information on the quality of the receiving water, including its "water quality limited" status under CWA section 303(d)(1). The fact sheet does not provide a "brief description of the type of facility or activity." 40 CFR 214.8(b)(1). It does not explain how the proposed combustion turbine facility relates to the partially constructed nuclear power plant, the permit for which is being modified. It does not mention the fact that the application speaks of the possibility of running the WPPSS No. 3 nuclear plant at the same time as the natural gas combustion turbine. Nor does it provide even rudimentary information about the source of intake water and the quality of the discharge. For example, there is no information provided on the Applicant's proposal to draw Chehalis River water from the Ranney Wells to "quench" the temperature of the discharge. It does not mention any statutory or regulatory provisions other than vague references to "water quality-based" parameters and "water quality standards," which would mystify the average citizen.

The fact sheet does not even mention the state's antidegradation policy and therefore does not discuss how that policy is being implemented with regard to this draft NPDES permit. The antidegradation policy is a key method of implementing the primary goal of the Clean Water Act, namely to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA section 101(a). It is also an important method of implementing the Act's interim goal of providing for the "protection and propagation of fish, shellfish, and wildlife and * * * recreation in and on the water * * *" CWA section 101(a)(2). Congress underscored the importance of the antidegradation policy in its 1987 amendments to the Clean Water Act. PUD No. 1 of Jefferson County v. Washington Department of Ecology, 114 S.Ct. 1900, 1905 (1994). If the application of the antidegradation policy to this permit is not a "significant policy question" needing to be addressed in the fact sheet than clearly nothing would qualify.

The fact sheet does not provide a description of the procedures for reaching a final decision on the draft permit as required. The Council's notice of a public hearing states that the public may petition the U.S. Environmental Protection Agency (EPA) Administrator to review conditions of the permit pursuant to 40 CFR 124.19. This citation does not appear to be consistent with the Council's own rules at WAC 463-38-063. It also does not describe the role of EPA or the Council in making a final decision on the permit, as required by the federal rules. Given

the Council's particularly confusing process of issuing an NPDES permit in the context of the site certificate, there is all the more reason to adhere to the terms of this particular regulation.

The fact sheet provided to the public for this draft permit was itself labeled "draft." The sole purpose of a fact sheet is to accompany a draft permit, not a proposed permit or a final permit. Therefore, the use of the label "draft" by the Council suggests the substance of the fact sheet -- and the terms of the draft permit in its draft state -- were subject to change even at the time of its publication. In point of fact, given the ever-changing permit conditions discussed above, such a label was appropriate and highlights the inadequacy of the public notice provided.

C. Information Lacking

The Council's regulations spell out the required contents of applications: "The applicant shall provide detailed descriptions of the affected natural water environment, project impacts and mitigation measures and shall demonstrate that facility construction and/or operational discharges will be compatible with and meet water quality standards. * * * The application shall set forth all background water quality data pertinent to the site, and hydrographic study data and analysis of the receiving waters within one-half mile of any proposed discharge location with regard to: Bottom configuration; minimum, average and maximum water depths and velocities; water temperature and salinity profiles; anticipated effluent distribution and dilution, and plume characteristics under all discharge conditions; and other relevant characteristics which could influence the impact of any wastes discharged thereto." WAC 463-42-322. Much of this information is not in the application and/or is not available, as discussed elsewhere in these comments. As a result, information about this project is difficult to obtain, thereby increasing the burden on the public as well as regulatory agencies.

Some of the data upon which the Applicant relies, and which NWEA has sought, have been "archived" by both the Applicant and the Council. Other basic information -- such as the water temperatures assumed for the water balance calculations, and the basis for those assumptions -- is not available as part of the draft permit or the application. Personal communication with Laura Schinnell, Supply System and Alan Fiksdal, EFSEC staff. Attempts to receive this information from the Applicant have been responded to promptly but not always with results. We are left with the impression that perhaps the information we are requesting simply does not exist.

The application is also confusing. It refers to the possibility that the WPPSS No. 3 nuclear reactor might still be operated at this site without providing any detail. It presents more information on the receiving water quality in the section on pipeline impacts than in the section on the proposed discharge.

The application does not clearly explain the rationale behind making dilution calculations on a 50:1 ratio nor why an analysis of the actual discharge plume was not performed. It does not explain why temperature is omitted from the mass balance calculations provided in Appendix C nor why there is no number provided for that parameter in the column "plume analysis results" of the matrix in Table 3.3-10 of the application.

II. LEGAL REQUIREMENTS FOR THE ISSUANCE OF PERMITS

A. Permits Prohibited

EPA regulations prohibit the issuance of any permit "when the conditions of the permit do not provide for compliance with the applicable requirements of CWA, or regulations promulgated under CWA." 40 CFR 122.4(a). This includes "[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states." 40 CFR 122.4(d).

B. Required Effluent Limitations

Where NPDES permits are issued, EPA regulations require that the effluent limitations incorporated therein meet any additional standards and state requirements. 40 CFR 122.44(d). Specifically, "each NPDES permit shall include conditions meeting [w]ater quality standards and State requirements." *Id.* This section establishes the need for "any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under [other sections of the CWA] necessary to: (1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality." 40 CFR 122.44(d)(1).

These required effluent limitations "must control all pollutants or pollutant parameters (either conventional, nonconventional or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 CFR 122.44(d)(1)(i). In order to determine whether a discharge causes, has the reasonable potential to cause or contribute to an in-stream excursion above either narrative or numeric criteria, "existing controls on point and nonpoint sources, the variability of the pollutant or polluting parameter in the effluent * * * and where appropriate, the dilution of the effluent in the receiving water" must be accounted for. 40 CFR 122.44(d)(1)(ii).

The Council's rules are similar: "In any case where an issued NPDES permit applies the effluent standards and limitations established in paragraph 1 of this section, the council shall make a finding that any discharge authorized by the permit will not violate applicable water quality standards and will have prepared some explicit verification of that fact. In any case where an issued NPDES permit applies any more stringent effluent

limitation, based upon applicable water quality standards, a waste load allocation shall be prepared to ensure that the discharge authorized by the permit is consistent with applicable water quality standards." WAC 463-38-053(2).

The water quality standard referred to in these federal and state regulations are defined as the designated beneficial uses in combination with the numeric and narrative criteria to protect those uses and an antidegradation policy. 40 CFR 131.6. Numeric criteria adopted in water quality standards should be promulgated to protect the "most sensitive use." 40 CFR 131.11(a)(1). However, since this is not always possible, the task of evaluating whether standards have been met also requires an assessment of the impact a discharge will have on the beneficial uses. The U.S. Supreme Court decision in Jefferson County underscored the importance of protecting beneficial uses as a "complementary requirement" that "enables the States to ensure that each activity -- even if not foreseen by the criteria -- will be consistent with the specific uses and attributes of a particular body of water." Jefferson County, supra, at 1912. The Court explained that numeric criteria "cannot reasonably be expected to anticipate all the water quality issues arising from every activity which can affect the State's hundreds of individual water bodies." Id.

C. Antidegradation

EPA regulations implementing CWA section 303 require that the State of Washington's "antidegradation policy and implementation methods shall, at a minimum, be consistent with the following: (1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 CFR 131.12(a)(1). Only where the quality of waters exceed levels necessary to support the most sensitive biological beneficial uses is the State allowed to degrade water quality in order to accommodate important socioeconomic development. 40 CFR 131.12(a)(2). Even where these high quality waters exist, a situation present in this case only for some pollutants and parameters, the regulations require that the State assure water quality adequate to protect existing uses fully. 40 CFR 131.12(a)(2).

Washington's antidegradation regulation is somewhat less clear, but consistent: "Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed." WAC 173-201A-070(1). This policy is a part of Washington's water quality standards, which, in turn, are referenced by Council rules. E.g., WAC 463-38-061.

III. THE CHEHALIS AND THE DISCHARGE

A. The Chehalis River

The Department of Ecology (DOE) has made, and U.S. EPA has

approved, a finding that segment No. WA-22-4040, of the Lower Chehalis River from river mile 13.0 (Wynoochee River) to 33.3 (Porter Creek), into which the Applicant proposes to discharge, does not meet the state water quality standard for temperature -- i.e., is "water quality limited" -- based on exceedences of the numeric criterion. Department of Ecology, 1994 303(d)(1) list.

The application provides data that show the temperatures for this segment of the Chehalis range up to 22.6°C over the criterion of 18°C. Application at 3.3-6. Data from 1971 to 1991 show that the dates for these exceedences of the criterion range from May 24 to September 10. Application Table 3.3-6. Low stream flows, which can exacerbate temperature problems as well as stress temperature-dependent beneficial uses, typically occur from July through September but also may occur in May, June and October. Application at 3.3-3.

B. The Proposed Discharge

We understand that a last minute "settlement" has resulted in a change from the draft permit condition of a discharge temperature of 20°C to that of 18°C. Personal communication with Thomas Young. We have not been able to obtain all of the information needed to evaluate the attainability of this discharge limit. The application consists of inadequate and unclear information on the assumed intake temperature, a maximum of .9 cfs of which may be used for cooling the effluent prior to discharge. Groundwater temperatures that are reported for a well (APW) in the vicinity of the Ranney Wells for the period November 1980 through October 1981 varied between 10.4°C and 10.8°C, and averaged 10.6°C. Application at 3.3-12. This information appears to be relatively useless, however, because the application does not state how this temperature data was obtained (i.e., with or without pumping), and 88% of the Ranney Well water is assumed to be Chehalis River water. It turns out that this data was obtained without pumping. Personal communication with Laura Schinnell. In 1986-87, when the Ranney Wells were given the only full test of their operating capacity, no temperature data were collected. Personal communication with Laura Schinnell. Therefore there is no data on the expected temperature of the water entering the plant for the purpose of "quenching" the temperature of the effluent prior to discharge.

Water temperature implications of the proposed cooling water quench and discharge system for the project have not been adequately analyzed. As proposed, the project cannot be feasibly expected to meet the new permit limits for temperature of 18°C during much of the summer season (June through September). Plant process, make-up, and cooling water for the proposed project is to be provided by two Ranney Wells located in the alluvial gravel bed beneath and adjacent to the Chehalis River. These wells are reported to obtain 88 percent of their inflow water from the overlying river via drawdown, with 12 percent drawn from the surrounding alluvial aquifer. Of the approximately 7.8 cfs maximum expected withdrawal rate for the wells, about 6.9 cfs

will be Chehalis River water and 0.9 cfs will come from the alluvial groundwater aquifer.

Temperature data from the Chehalis River at the Porter station over the 20-year period 1971-91 indicate summer seasonal (June through September) water temperatures generally ranged between about 15°C and 21°C. Application Table 3.3-6. The average of all reported summer season temperatures over the 20-year period is 16.5°C. Forty percent of all summer season temperature measurements were between 18°C and 24°C.

The heat absorption capacity of the alluvial gravel bed volume through which Chehalis River water will flow from river bed to Ranney Well intake laterals is not large relative to the expected 6.9 cfs drawdown rate for the Chehalis River water. Any measurable temperature lag between the overlying river water and the Ranney Well intake laterals would not be more than a few days. Personal communication with J.D. Smith. Therefore, the temperature of 88 percent of the Ranney Well intake water will effectively be the temperature of the overlying Chehalis River water and the temperature of 12 percent of the Ranney Well intake water will be the temperature of the alluvial groundwater aquifer.

When temperatures of the Chehalis River water reach or exceed about 19°C, the temperatures of water withdrawals from the Ranney Wells will exceed 18°C. The cooling tower blowdown quench and discharge system, as described, for example, in Figure 3.3-7, proposes to combine 122 gpm of blowdown water at a temperature generally greater than 18°C with 224 gpm of quench water which will be greater than 18°C during summer months to obtain 346 gpm of discharge water at a temperature less than 18°C. This appears to be thermodynamically difficult, at best.

Estimated temperatures of cooling tower blowdown waters are not included in the information provided. Supporting documentation for a similar project application (the Chehalis CT Project) indicate that blowdown water temperatures would be about 22-23°C during summer months. For these conditions and the maximum flow rates illustrated in Figure 3.3-7, the quench water temperatures would have to be less than about 15.5°C in order to achieve permitted discharge temperatures of 18°C or less during the summer months. The temperature of quench water obtained from the Ranney Wells will be 15.5°C or less only when water temperatures of the Chehalis River are less than about 16.2°C. Over the 20-year temperature record presented in Table 3.3-6, only about one third of all summer season (June - September) Chehalis River water temperatures were 16.2°C or less.

IV. THE PROPOSED DISCHARGE VIOLATES REGULATIONS

No evaluation has been supplied by the Applicant or the Council that the thermal component of the proposed discharge will comply with Washington's water quality standards including: the numeric criterion, protection of the beneficial uses, and the

antidegradation policy.

A. The Numeric Criterion & Waste Load Allocations

The Council has not yet made the findings and "explicit verification," required by its own rules, that the proposed discharge will not violate water quality standards. Neither the Applicant nor the Staff has shown that the proposed discharge will not "cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard," as required by EPA regulations governing the issuance of NPDES permits. Instead, the Applicant has merely performed a 50:1 dilution analysis, with no thermal component described for the resultant plume.

1. Temperature

The new proposed permit condition of discharge temperature of 18°C is the same as the numeric criterion for the receiving stream. There are several reasons why, on its face, this thermal load will cause and/or contribute to violations of the numeric criterion. First, an allocation under the Total Maximum Daily Load (TMDL), that even the Applicant admits is necessary, will require thermal loads to be less than the numeric criterion because the Applicant is only one of many point and non-point sources contributing thermal loads in the watershed. Under a TMDL, no additional thermal load should be allowed unless and until there are other sources of thermal loading which are in the process of being reduced. Second, the statute requires TMDLs of all kinds, including thermal TMDLs to include a "margin of safety," and therefore the load allocations would similarly include a margin of safety. CWA 303(d)(1)(D). Assuming no other sources of thermal loading, allowing the discharge temperature to equal the numeric criterion would not include a margin of safety. Third, allowing the discharge to be 18°C does not take into account the fact that the numeric criterion is too warm to protect populations of cold-water fish which are both existing and designated beneficial uses in the Chehalis River.

Temperature criteria excursions are caused by a variety of point and non-point sources of thermal loads in addition to the both natural and anthropogenic sources including, for example: solar radiation from changed river morphology throughout the watershed, reduced and slowed flows, air temperatures, and reduced shading. In order to ensure that the temperature criterion is met, all sources of thermal loading must be restricted. Adding quench water to reduce the temperature of the project discharge to make it equivalent to the numeric criterion contributes to violations of the standard downstream because of the inevitable additional sources of thermal loads, whether from point, non-point, anthropogenically-induced or natural solar radiation sources. The regulations require that, in establishing the effluent limits for this project, the contributions and controls on these other sources be evaluated. 40 CFR 122.44(d)(1)(ii). There is no other way in which to assure that the discharge from this project

will not cause or contribute to violations of water quality standards.

The mere fact that a discharge is at or lower than the temperature criterion is not sufficient to constitute an appropriate waste load allocation. Absent more analysis than has been provided by either the Applicant or the Council's consultants, there is no assurance that the proposed discharge temperature will not in fact cause, at times, and contribute, at others, to the violation of the state's water quality standard for temperature.

2. Other Parameters

There is an apparent conflict between proposed limits for free available chlorine (0.50 mg/l daily maximum; 0.20 mg/l daily average) and "no detectible amount" of total residual halogens; chlorine is one of the halogens, along with bromine, fluorine, and iodine. In addition, if there is to be a separate limit for chlorine discharged, it should be for the total residual chlorine and not simply the free available fraction. There is no great difference between the toxicity of free available chlorine and the chloramines that also result from the chlorination process. This is recognized by the Department of Ecology toxicity limits for total residual chlorine.

From estimated sulfate concentrations in NPDES permit application documents, it appears that a necessary dechlorination process for cooling tower blowdown waters contemplates the addition of sulfur dioxide and its oxidation to sulfate. Since aqueous sulfur dioxide (H_2SO_3) is toxic, there should be a permit limit established for the discharge of this substance and any other toxic residuals from any dechlorination process.

Proposed permit limits for ammonia (3,467 mg/l daily maximum; 1,728 mg/l daily average) are obviously miscalculations that would result in dilution zone ammonia concentrations that were orders of magnitude greater than toxic limits for ammonia-nitrogen during summer seasonal conditions (about 0.3 mg/l at pH 8.5 and 18°C). The biochemical oxygen demand associated with any ammonia discharge does not appear to have been considered in the determination of appropriate effluent limits. Each mg of ammonia-nitrogen that is discharged will consume 4.57 mg of dissolved oxygen (DO) from receiving waters as the ammonia is biochemically oxidized to nitrate. Inadequate DO is already a documented water quality problem in the Chehalis River. From data presented, 100 percent of all reported DO measurements at the Porter station during 1987 were in violation of the water quality standard of 8 mg/l for the river. Application at Table 3.3-5.

Warmer temperatures also have a negative effect on DO levels. The DO data presented in the application for the year 1987 dropped to 4 mg/l. The applicant should be required to assess the contribution of its thermal load to any potential DO problems

that may be experienced in this segment. For example, Oregon's proposed new temperature standard prohibits any measurable increase in water temperature where DO concentrations are within 0.5 mg/l of the DO criterion. Dissolved Oxygen Issue Paper, supra, at 4-8.

B. Protection of Beneficial Uses

As illustrated above, Washington's numeric water quality standard for temperature applicable to Class A streams, such as the Chehalis, is inadequate to protect the designated beneficial uses present. The Council cannot simply apply the 18°C criterion in the temperature standard, but is required by law to consider the specific needs of the existing beneficial uses of salmonid stocks in the Chehalis in order to determine an appropriate thermal load allocation for this source. The application's observation that, "[t]he habitat, particularly with regard to migrating anadromous (sic) fish, is also sensitive to water temperature" is not a sufficient evaluation of the impact of the discharge upon the beneficial uses. Application at 3.3-29.

The Chehalis is used by a large number of cold-water fish. It is a migration corridor for spring and summer run chinook and summer steelhead. The Chehalis is spawning and rearing habitat for fall chinook, coho, chum, winter steelhead and sea-run cutthroat. Personal communication with Susan Balikov, The Wilderness Society, Seattle office. The temperatures needed to protect these cold-water fish are significantly colder than the 18°C (65°F) numeric criterion adopted by the Department of Ecology.

Salmonid respond to warmer temperature differently depending upon, among other variables, the stage of the life cycle in which they are exposed. Appropriate temperatures must be established based on the life stage with the most restrictive temperature requirements occurring at any given time of year. Temperature Issue Paper, supra, at 2-7. The chinook, which have a spring, summer and fall run on the Chehalis, illustrate the shortcomings of the numeric criterion due to the life cycle stages that occur during the low flow, high temperature summer months. Fall chinook migrate inward to spawn in the Chehalis River from August through September. Inland Fishes of Washington, Wydoski and Whitney, University of Washington Press, 1979, at 59. Spring and summer chinook do not spawn in the Chehalis but use it as a migration corridor from late May to early June, spawning in July through September. Id. Coho migrate upstream beginning in August with juveniles spending one year in the river prior to outmigration. Temperature Issue Paper, supra, at 2-10.

By comparing these life cycle stages to the temperature needs of the species one can evaluate the impacts of the proposed discharge in addition to the current quality of the receiving water. For example, the holding of pre-spawning ripe adult chinook females due to migration barriers created by high temperatures increases their susceptibility to disease, the same diseases which become highly infectious and virulent above

15.5°C. Temperature Issue Paper, supra, at 2-7. The exposure of ripe adult females to this same temperature causes "pronounced" adult mortality. Id. Similarly, coho, which use the Chehalis for spawning and rearing, require a migration temperature and juvenile rearing temperature of 15.6°C and 14.6°C respectively. Id. at 2-11. The State of Oregon's proposed new temperature criterion for salmonid spawning, egg incubation and fry emergence is 12.8°C (55°F). Id. at 4-7. As discussed above, the Council is required under 40 CFR 122.44 and Jefferson County to fully evaluate these impacts prior to issuing a draft permit and must include effluent limitations to protect these uses in permit conditions.

C. Antidegradation Policy

According to the Washington Department of Ecology, the primary NPDES permitting authority in the state, the antidegradation policy is regularly ignored. In a memorandum accompanying a questionnaire sent out to participants in the state's 1995 Triennial Review of Water Quality Standards, DOE staff concede that: "While the state has had antidegradation requirements for a very long time, these requirements have not been effectively implemented in actions of the department." Antidegradation Implementation Plan, Questionnaire Number One, Summary Discussion, Surface and Ground Water Quality Management Unit, DOE, March 14, 1995 at ii. Notwithstanding this admission, EPA and state regulations remain binding upon this draft NPDES permit.

NWEA is unable to comment upon the application of the antidegradation policy to this draft permit because no evaluation has been provided. The only reference to the policy in all of the materials that we have been able to find is the following statement by the Applicant: "In addition to the discharge requirements of the NPDES permit, the CT Project must comply with the state's nondegradation (sic) standards specific to Class A water bodies * * *." Application at 3.3-29. We concur with the Applicant's rather surprising admission that the law requires the application of a nondegradation rather than antidegradation standard for those Class A waterbodies which are "water quality limited." Unfortunately, the proposed permit limits do not reflect this policy. Neither do the limits reflect the application of the antidegradation policy to those parameters of the discharge that are not limited by the poor water quality of the Chehalis. At a minimum, correct implementation of the required antidegradation policy necessitates, at the outset, its application. This has not yet occurred, despite NWEA's having raised the issue in the prehearing process of the site certification proceeding.

The antidegradation policy precludes further discharges of thermal loads in the absence of an implemented plan to bring the waterbody into conformance with the standard. This is because the uses are by definition not fully supported if the numeric

criterion has been violated and the water has been deemed "water quality limited." The application correctly suggests that the results of a Total Maximum Daily Load (TMDL) study may affect regulatory discharge limitations for flow, temperature and dissolved oxygen, among other parameters. Application at 3.3-26 and 3.3-29. Merely making this observation, however, is not sufficient to meet the requirements of 40 CFR 122.44 and other regulations cited above which require the effluent limits to conform to water quality standards. If the receiving stream is water quality limited, no additional heat load should be allowed unless there are other heat inputs which are being reduced sufficient to leave assimilative capacity available for use. Likewise, the observation that "the CT Project must comply with the state's nondegradation (sic) standards" does not mean that the antidegradation analysis has been completed. Application at 3.3-29.

D. Use of Water for Dilution of Mass Loads

Dilution of effluent loads prior to discharge is implicitly prohibited by the requirement that permits contain mass load limitations for all pollutants except pollutants which cannot appropriately be expressed by mass. 40 CFR 122.45(f)(1). While EPA regulations identify temperature as a pollutant which cannot appropriately be expressed by mass, temperature allocations can be made in british thermal units (BTU). 40 CFR 122.45(f)(1)(i). The Clean Water Act's requirements for the development of Total Maximum Daily Loads (TMDL) explicitly recognize the ability to allocate thermal loads: "Each State shall estimate for the waters identified as [water quality limited for temperature] the total maximum daily thermal load required to assure protection and propagation of shellfish, fish and wildlife. * * * Such estimates shall include a calculation of the maximum heat input that can be made into each such part [of identified waterbodies] and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria * * *." CWA section 303(d)(1)(D).

The Council's rules acknowledge this requirement: "In the application of effluent standards and limitations, water quality standards and other legally applicable requirements pursuant to paragraphs (1) and (2) hereof, each issued NPDES permit shall specify average and maximum daily quantitative or other appropriate limitations of the level of pollutants in the authorized discharge. The average and maximum daily quantities must be made by weight except where the parameters are such that other measures are appropriate." WAC 463-38-053(3). "Other measures" does not mean that dilution of loads prior to discharge is an acceptable practice for those pollutants which are not measured by weight.

The proposed use by the Applicant of .9 cfs from the Ranney Wells as "quench water" -- described as being added to the discharge solely for the purpose of cooling the effluent -- is in direct contradiction of this restriction. E.g., Satsop

Combustion Turbine Project Settlement Agreement at 2. The addition of cooler water to discharges with thermal loads does not reduce the thermal loading to the receiving water, but merely dilutes it in the vicinity of the discharge.

The Application also incorrectly takes credit for increasing the flow of the Chehalis River. Application at 3.3-33. This is, of course, not true because vastly more water will be removed from the Chehalis than will be returned to it, resulting in a net loss of flow.

E. Mixing Zone Analysis Inadequate

The proposed permit conditions include an effluent dilution zone. Draft NPDES Condition G3. Water quality standards, including toxicity limits for constituents in the Satsop CT Project discharge, must be met at the boundaries of the specified dilution zone. Calculations to demonstrate that proposed discharge limits will satisfy dilution zone requirements are not presented. An assumed 50:1 dilution ratio is an assumption that 25 percent of the total river will flow through the specified zone. The adequacy of this assumption is not demonstrated. The application also makes assumptions about the temperature of the receiving water, a parameter which changes. E.g., Application at Table 3.3-10 and 3.3-31. The dilution zone does not evaluate the plume for temperature. Table 3.3-10. The dilution zone must also be analyzed for its impact on beneficial uses. This requires matching the results of plume modelling with specific information on uses in the river. Instead, the Applicant, in specific contradiction to the Council's requirements for an application, provides only assumptions of the river morphology in the discharge area. See WAC 463-42-322.

Conclusion

This draft permit does not meet federal, Washington Department of Ecology or the Council's own regulations for permit conditions. Therefore, the Council is prohibited from issuing the draft permit at this time. The process for obtaining public comment on this draft permit has also not complied with state and federal requirements. Moreover, it appears that permit conditions are still being evaluated and changed, making this entire public comment process a waste of public resources. If the Council chooses to reissue the draft NPDES permit for public notice and hearing -- a necessary prerequisite to attempting to issue a final permit to this project -- it must first assure itself that members of the public and non-profit entities will not be, once again, wasting their time trying to follow a moving target.

We look forward to your response to our comments.

Sincerely,

Nina Bell
Executive Director
Northwest Environmental Advocates for:

Renewables Northwest Project
Long Live the Kings
Friends of the Earth, Northwest Office
Northwest Steelhead & Salmon Council (Trout Unlimited)