

UNITED STATES OF AMERICA DOCKETED  
NUCLEAR REGULATORY COMMISSION SNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD :40  
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In the Matter of )  
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PUGET SOUND POWER & LIGHT ) Docket Nos. STN 50-522  
COMPANY, et al. ) STN 50-523  
 )  
(Skagit/Hanford Nuclear )  
Project, Units 1 and 2) December 23, 1982

APPLICANTS' RESPONSE TO INTERVENORS' MOTION  
TO CLARIFY AND AMEND CERTAIN CONTENTIONS

On December 13, 1982, the National Wildlife Federation/  
Oregon Environmental Council (NWF/OEC), the Yakima Indian  
Nation (YIN), the Columbia River Inter-Tribal Fish Commission  
(CRITFC), and the Coalition for Safe Power (CSP) jointly  
submitted "Intervenors' Motion To Clarify And Amend Certain  
Contentions." The Applicants hereby submit their response  
to this motion.

The motion requests that Contentions 7 and 8 in the  
Licensing Board's Memorandum and Order of November 2, 1982  
be amended to clarify that each of these contentions encom-  
passes the factual bases presented in various environmentally  
related contentions of the intervenors. In essence, the  
intervenors are arguing that these factual allegations give  
rise to three different legal conclusions regarding (1) the  
adequacy of the assessment of environmental impacts, (2) the  
results of the cost/benefit balance for S/HNP, and (3) possible  
violation of Indian treaty rights. Since the motion only  
seeks to clarify the legal issues which are raised by the

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factual bases, and not to expand the number of factual issues to be heard in the hearings, the Applicants have no objection to the motion.<sup>\*/</sup>

The motion would also amend Contentions 7 and 8 to direct the intervenors to designate one of the intervenors as lead party for each of the factual bases asserted whenever the bases presented by the intervenors overlap. The Applicants appreciate this offer by the intervenors and urge the Licensing Board to adopt it. The Applicants also invite the intervenors to make such a designation early to avoid possible duplication of effort in matters such as discovery.

Finally, the Applicants believe that one additional comment is warranted with respect to the proposed amendment to Contention 8. Amended Contention 8 generally alleges that the Applicants have used an inaccurately low estimate of the environmental cost of S/HNP in the cost/benefit balance. The intervenors imply that environmental costs should be quantified and perhaps converted into a dollar value. Although the Applicants agree that that environmental impacts should be taken into account

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<sup>\*/</sup> According to the Commission's rules of practice, the granting of a motion to amend contentions must be predicated upon a balancing of the five factors of 10 CFR § 2.714(a) if the motion is filed after fifteen days prior to the holding of the special prehearing conference. See 10 CFR § 2.714(b). Although the intervenors' motion did not contain the requisite consideration of these five factors, the Applicants submit that such a balancing would be favorable to the intervenors given the nature of the proposed amendment.

in the cost/benefit balance, the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, et seq., does not require that every environmental impact be quantified or converted into a dollar value.<sup>\*/</sup>

Nothing in the language of NEPA requires that environmental costs be assigned a dollar value or otherwise quantified. Section 102(2)(B) of NEPA does state that federal agencies shall "insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations." However, the courts have not interpreted this section as requiring an agency to place an economic price on environmental impacts or to convert environmental impacts into mathematical terms for insertion into a cost/benefit balance. Robinson v. Knebel, 550 F.2d 422, 426 (8th Cir. 1977); Sierra Club v. Stamm, 507 F.2d 788, 794 (10th Cir. 1974); Environmental Defense Fund, Inc. v. Corps. of Engineers, 492 F.2d 1123, 1133 (5th Cir. 1974); Environmental Defense Fund, Inc. v. Costle, 439 F.Supp. 980, 993 (E.D.N.Y. 1977); Environmental Defense Fund v. Tennessee Valley Authority, 371 F.Supp. 1004, 1013 (E.D. Tenn. 1973), aff'd, 492 F.2d 466 (6th Cir. 1974). Moreover, the fact that an environmental impact statement (EIS) does not contain

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<sup>\*/</sup> The intervenors suggest that that Pacific Northwest Electric Power and Conservation Planning Council will develop a methodology to calculate quantifiable environmental costs of generating resources such as S/HNP. However, it is not clear that this methodology will be either applicable or useful to a quantification of the impacts of S/HNP for use in a cost/benefit balance under NEPA.

a cost/benefit analysis with quantified environmental impacts does not render it invalid. Cady v. Morton, 527 F.2d 786, 797 (9th Cir. 1975); Sierra Club v. Morton, 510 F.2d 813, 827 (5th Cir. 1975); Trout Unlimited v. Morton, 509 F.2d 1276, 1286 (9th Cir. 1974); Sierra Club v. Lynn, 502 F.2d 43, 61 (5th Cir. 1974). All that is required by NEPA is that sufficient consideration of environmental impacts be presented in an EIS to enable the agency and the public to conduct a reasoned evaluation and weighing of the benefits and costs of a project. Robinson v. Knebel, supra; Cady v. Morton, supra; Sierra Club v. Morton, supra; Trout Unlimited v. Morton, supra; EDF v. Corps. of Engineers, supra.<sup>\*/</sup>

The reasoning behind the court's interpretation of NEPA is not difficult to discern. Placing a value upon environmental impacts is often dependent upon subjective opinion and, in the final analysis, any decision whether or not to proceed with a project "is not strictly a mathematical determination." Trout Unlimited v. Morton, supra; EDF v. Costle, supra; see also EDF v. Corps. of Engineers, supra. In short, quantification of environmental impacts may well be nothing

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<sup>\*/</sup> This is not to suggest that an agency is prohibited from quantifying environmental impacts in its cost/benefit balance. The courts have recognized the value of quantification in some cases. Columbia Basin Land Protection Association v. Schlesinger, 643 F.2d 585, 594 (9th Cir. 1981); Robinson v. Knebel, supra; Sierra Club v. Morton, supra; State of Alabama ex rel. Baxley v. Corps of Engineers, 411 F.Supp.1261, 1269 (N.D. Ala. 1976); EDF v. TVA, supra.



than an academic exercise or an exercise in futility which does not materially contribute to the NEPA process.

The courts are not the only bodies which have interpreted NEPA thusly. For example, the regulations of the Council on Environmental Quality state as follows:

To assess the adequacy of compliance with sec. 102(2)(B) of the Act the [environmental impact] statement shall, when a cost-benefit analysis is prepared, discuss the relationship between the analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.

40 CFR § 1502.23. Similarly, the Commission's own regulations state that

[t]he cost-benefit analysis shall, to the fullest extent practicable, quantify the various factors considered. To the extent that such factors cannot be quantified, they shall be discussed in qualitative terms.

10 CFR § 51.20(b). As the Appeal Board has noted, this does not require that "all costs or benefits must, or can, be quantified," and a cost/benefit analysis is not deficient if it does not attempt to quantify environmental impacts which are amenable only to qualitative or broadly subjective social assessment. Long Island Lighting Co. (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 855-56 (1973). Other opinions by the Appeal Board are in the same vein.

For example, in Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 350-51 (1973), rev'd sub nom. on other grounds Aeschliman v. NRC, 547 F.2d 622 (D.C. Cir. 1976), rev'd sub nom. Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519 (1978), the following discussion appears:

It is clear in this case that both the staff, in its Final Environmental Statement, and the Board, in its decision, have balanced the costs of the proposed plant against its benefits. In doing so, the Board found that it was "not possible" to quantify all costs and benefits, and to reach an arithmetical balance, since "more often than not the quantifications are so speculative and non-objective as to be worse than useless." The Board then applied its rationale to particular aspects of the environmental review. For example, it found serious difficulties with intervenors' attempts to quantify the value of the flora and fauna to be disturbed by construction, concluding that their "method of evaluation and calculation [is] wholly insupportable." But it considered these non-quantifiable factors in reaching its final conclusion that the "benefits outweigh the costs."

Intervenors have pointed to nothing which would indicate that costs which were considered only qualitatively could have been adequately quantified, or which would indicate that the Licensing Board did not take the nonquantifiable factors into account. Accordingly, exception IV.B. is rejected.

(Footnotes omitted). And in Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-179, 7 AEC 159, 172 (1974), the Appeal Board agreed with the NRDC's general argument that environmental costs and benefits should be quantified in monetary terms to the fullest extent practicable,

but nevertheless held:

We have concluded that the placing of a monetary value on the benefit of electricity is not mandated either by NEPA or by Commission regulations, and that attempting such a task serves no useful purpose. If anything, the appearance of precision resulting from such an exercise tends to divert scrutiny from the difficult judgmental decisions involved in performing an accurate cost-benefit analysis and, specifically, in determining whether a genuine need for the facility exists. Accordingly, we are vacating the modification concerning the dollar value of electricity made by the Board to the cost-benefit analysis.

See also Illinois Power Co. (Clinton Power Station, Unit Nos. 1 and 2), ALAB-340, 4 NRC 27, 46-47 (1976).

In summary, NEPA does not require that all environmental impacts be quantified. If quantification is not practicable or if quantification would not be meaningful due to the subjective nature of such quantification, NEPA only requires a qualitative balancing of the costs and benefits of the project.

Thus, to the extent that the intervenors may be arguing that the environmental impacts of S/HNP must be quantified, they bear a heavy burden to demonstrate that such quantification is both practicable and meaningful. In regard to quantification, the Applicants see several problems which, in total, appear to be insurmountable. For example, with respect to the intervenors' contentions that construction and operation of S/HNP will adversely affect

various species of wildlife, the following questions immediately arise:

- ° Is it realistically possible to provide a precise estimate of the number of individuals within each species which will be affected by S/HNP?
- ° Is it meaningful to place a monetary value on the life of one individual of a species, especially if the species is not traded as a commodity in the market?
- ° Should sublethal effects be monetized and, if so, how is this accomplished?
- ° What value, if any, should be placed upon the loss of individuals which are not mature adults; e.g., ichthyoplankton?
- ° What value, if any, should be placed upon temporary effects?
- ° Should the loss of individuals within a species be assigned any monetary value if the species as a whole will not be adversely affected in the area around S/HNP?

The Applicants submit that, even if it proves possible to answer some of these questions, it is unreasonable to expect that all of these questions can be answered with respect to every species. Consequently, the Applicants recommend that the parties and the Board abandon any esoteric attempt to place a value upon all potential environmental impacts of S/HNP and instead concentrate upon determining the nature



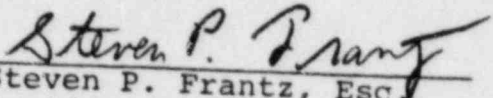
and extent of the impacts for inclusion in a qualitative cost/benefit analysis. NEPA requires no more.

Respectfully submitted,

Of Counsel:

F. Theodore Thomsen, Esq.  
Perkins, Coie, Stone, Olsen  
& Williams  
1900 Washington Building  
1325 4th Avenue  
Twenty First Floor  
Seattle, WA 98101

Telephone: 206-682-8770

  
Steven P. Frantz, Esq.  
David G. Powell, Esq.  
Lowenstein, Newman, Reis  
& Axelrad  
1025 Connecticut Avenue, N.W.  
Washington, D.C. 20036  
Telephone: 202-862-8400

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CERTIFICATE OF SERVICE

I hereby certify that copies of Applicants' Response to Intervenor's Motion to Clarify and Amend Certain Contentions, dated December 23, 1982, have been served on the following individuals and entities by deposit in the United States mail, first class, postage prepaid, on this 23rd day of December, 1982.

Secretary of the Commission  
Docketing and Service Branch  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

John F. Wolf, Esq.  
Chairman Administrative Judge  
Atomic Safety and Licensing Board  
3409 Shepherd Street  
Chevy Chase, Maryland 20015

Dr. Frank F. Hooper  
Administrative Judge  
Atomic Safety and Licensing Board  
School of Natural Resources  
University of Michigan  
Ann Arbor, Michigan 48190

Gustave A. Linenberger  
Administrative Judge  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Stephen F. Eilperin  
Chairman  
Atomic Safety and Licensing  
Appeal Board  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Christine N. Kohl  
Atomic Safety and Licensing  
Appeal Board  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dr. Reginald L. Gotchy  
Atomic Safety and Licensing  
Appeal Board  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Lee Scott Dewey  
Counsel for the NRC Staff  
Office of the Executive Legal  
Director  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Washington Energy Facility Site  
Evaluation Council  
Nicholas D. Lewis, Chairman  
Mail Stop PY-11  
Olympia, Washington 98504

Kevin M. Ryan, Esq.  
Washington Assistant Attorney  
General  
Temple of Justice  
Olympia, Washington 98504

Frank W. Ostrander, Jr., Esq.  
Oregon Assistant Attorney General  
500 Pacific Building  
520 S. W. Yamhill  
Portland, Oregon 97204

Bill Sebero, Chairman  
Benton County Commissioner  
P. O. Box 470  
Prosser, Washington 99350

F. Theodore Thomsen  
Perkins, Coie, Stone, Olsen &  
Williams  
1900 Washington Building  
Seattle, Washington 98101

James W. Durham, Esq.  
Senior Vice President  
General Counsel and Secretary  
Portland General Electric Company  
121 S. W. Salmon Street  
Portland, Oregon 97204

Warren G. Hastings, Esq.  
Associate Corporate Counsel  
Portland General Electric Company  
121 S. W. Salmon Street  
Portland, Oregon 97204

Richard D. Bach, Esq.  
Stoel, Rives, Boley, Fraser & Wyse  
2300 Georgia Pacific Building  
900 S. W. Fifth Avenue  
Portland, Oregon 97204

Nina Bell, Staff Intervenor  
Coalition for Safe Power  
Suite 527, Governor Building  
408 S. W. Second Avenue  
Portland, Oregon 97204

Ralph Cavanagh, Esq.  
Natural Resources Defense Council  
25 Kearny Street  
San Francisco, California 94108

Terence L. Thatcher, Esq.  
NWF and OEC  
708 Dekum Building  
519 S. W. Third Avenue  
Portland, Oregon 97204

Mr. Robert C. Lothrop  
Attorney for Columbia River  
Inter-Tribal Fish Commission  
Suite 320  
8383 N. E. Sandy Blvd.  
Portland, Oregon 97220

James B. Hovis  
Yakima Indian Nation  
c/o Hovis, Cockrill & Roy  
316 North Third Street  
P. O. Box 487  
Yakima, Washington 98907

Canadian Consulate General  
Donald Martens, Consul  
412 Plaza 600  
6th and Stewart Street  
Seattle, Washington 98101

Stephen P. Trantz