

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the matter of )  
WASHINGTON PUBLIC POWER )  
SUPPLY SYSTEM )  
(WPPSS Nuclear Project No. 2) )

Docket No. 50-397-01  
CERTIFICATE OF SERVICE

I hereby certify that copies of "Amended Petition for Leave to Intervene" in the captioned manner have been served on the following by deposit in the United States mail with proper postage affixed this 10th day of November, 1978:

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION



In the matter of  
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
(WPPSS Nuclear Project No. 2)

ocket no. 50-397-OL  
MEMO IN SUPPORT OF AMENDED  
PETITION TO INTERVENE

Construction permit for the WPPSS, Unit 2, reactor at the Hanford site was granted in 1973. Washington Public Power Supply System (WPPSS, Unit 2), LBP-73-10, 6 AEC 197 (1973), aff'd, ALAB-113, 6 AEC 251 (1973). That opinion indicates that no members of the public intervened in the construction permit proceedings. Sixteen oral and seven written limited appearance statements were submitted, all in favor of the application for construction permit.

Now the applicant WPPSS has applied for operating license, and Hanford Conversion Project, Susan Garrett, ~~Helen Vozenilek~~, and Creg Darby have submitted petition and amended petition for leave to intervene, indicating that they have new evidence developed since 1973 and other information not considered in the construction permit proceedings.

The Commission is under no legal obligation to issue an operating license for a facility built in accordance with its construction permit. Power Reactor Co. v. Electricians, 367 U.S. 396, 402 (1961), aff'g 1 AEC 128, 136 (1959); Consumers Power Co. (Midland Plant Units 1 & 2), ALAB-283, 2 NRC 7, 11(1975), on reconsid., ALAB-315, 3 NRC 101, 103-112 (1976). In Power Reacto.

1 - memo in support of amended petition to intervene

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1            Co., the U.S. Supreme Court affirmed a decision by  
2            the Atomic Energy Commission which granted construction permit  
3            of a nuclear facility without the same definitive finding  
4            of safety of operation the Commission indicated it would have  
5            to make later before it authorized operation. The decision  
6            emphasizes the stricter standards for granting an  
7            operating license than for granting a construction permit,  
8            pointing out that the Commission is absolutely denied  
9            any authority to consider an applicant's financial investment  
10           in the construction of a facility when acting on an  
11           application for operating license for that facility (367  
12           U.S. at 415). The Supreme Court and Board decisions in  
13           Power Reactor Co. and the Board decision in Consumers Power  
14           Co. emphasize that construction of a reactor does not  
15           inevitably mean its operation, but that the Commission is fully  
16           to consider the public's interest at any stage in the  
17           course of its construction and after it is in operation.  
18           The Supreme Court stated, ". .nuclear reactors are fast  
19           developing and fast changing. What is up to date now  
20           may not, probably will not, be as acceptable tomorrow."  
21           367 U.S. at 408.

22                    In Potomac Electric Power Co. (Douglas Point  
23           Nuclear Generating Station, Units 1 & 2), ALAB-277, 1  
24           NRC 539 (1975), the Commission stresses the importance of  
25           a Licensing Board's taking pains to insure that any early  
26           site findings will not improperly influence its eventual  
27           decision regarding the plant's construction or operation.  
28           It states the importance of the Board's remaining open to  
         consider newly discovered environmental costs. (at 552).

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1                   Public participation in licensing proceedings is  
2 to be encouraged. In Gulf States Utilities Co. (River  
3 Bend Station, Units 1 and 2), ALAB-193, 7 AEC 222 (1974),  
4 the Commission stated:

5                   "Public participation in licensing  
6 proceedings not only 'can provide  
7 valuable assistance to the adjudicatory  
8 process' (footnote omitted), but on  
9 frequent occasions demonstrably has  
10 done so. It does no disservice to the  
11 diligence of either applicants generally  
12 or to the regulatory staff to note that  
13 many of the substantial safety and enviro-  
14 nmental issues which have received the  
15 scrutiny of licensing boards and appeal  
16 boards were raised in the first instance  
17 by an intervenor" (at 227-8)

18                   See also Northern States Power Co. (Prairie Island Nuclear  
19 Generating Plant, Units 1 & 2), 1 NPC 1, 2 (1975); and 43  
20 Federal Register 17798 (4/26/78). Any pressures for a rapid  
21 decision should not be allowed to override the need for  
22 the boards thoroughly to examine the safety and  
23 environmental issues brought before them. Cleveland  
24 Electric Illuminating Co. et al (Perry Nuclear Power Plant,  
25 Units 1 and 2), ALAB-003, 2 NPC 730, 737 (1975).

26                   The amended petition on its face indicates  
27 that the proposed intervenors wish to present evidence not  
28 available in 1973. It should be noted additionally that  
the level of public interest was not as great in 1973; that  
the proposed reactor, while being constructed in an area  
remote from population centers, presents a regional problem  
because of its location on the Columbia River; and that the  
Hanford site may become a national waste storage site, with  
attendant problems of transport, evacuation, and massive  
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1 river contamination, so that the environmental impact of the  
2 WPPSS 2 reactor should be considered as part of the whole.

3  
4 A. Standing as a matter of right.

5 The amended petition for leave to intervene lists  
6 additional members of the Hanford Conversion Project than  
7 those listed in the original petition. A.C. Rolls owns land,  
8 used for residence, farming, and pasture, within 10 to 15  
9 miles down river from the plant. Ruth Long resides with her  
10 family, including two minor children, within twelve miles of  
11 the plant.

12 An organization whose members are injured may  
13 represent those members in an administrative proceeding.  
14 Allied-General Nuclear Services (Barnwell Fuel Receiving and  
15 Storage Station), ALAB-328, 3 NPC 420; Sierra Club v. Morton,  
16 405 U.S. 727 (1972).

17 No stringent showing of particular interest is  
18 needed when petitioners' residences are within 40 miles of  
19 a proposed facility, for them to have standing to intervene as  
20 a matter of right. Gulf States Utilities Co. (River  
21 Bend Station, Units 1 & 2), ALAB-183, 7 AEC 222 (1974) (23 miles  
22 from plant site; allegation sufficient to establish standing  
23 that they were in "a zone that would be severely contaminated  
24 by a major loss of coolant emergency cooling failure accident",  
25 with attendant health and economic impact on selves and  
26 families) (at 223); Northern States Power Co. (Prairie Island  
27 Nuclear Generating Plant, Units 1 & 2), ALAB-107, 6 AEC 138  
28 (1973) (30-40 miles from site; allegations sufficient for  
4 - memo in support of amended petition to intervene

1 standing, that petitioners were concerned about impact  
2 on the "health, safety and welfare" of selves and families  
3 and on environment of area, and that they used the Mississippi  
4 River and other nearby natural resources for a variety of  
5 "health, recreational and aesthetic purposes") (at 190);  
6 Duquesne Light Co. (Beaver Valley Power Station, Unit No. 1,  
7 6 AEC 243 (1973) (12-15 miles from site; allegations sufficient  
8 that "operation of the plant would affect their food, milk, water  
9 supply, and the air they breathe. .") (at 244).

10 A distance of 50 miles from a site is not so great  
11 as necessarily to preclude a finding of standing. Tennessee  
12 Valley Authority (Watts Bar Units 1 & 2), ALAB-413, 5 NRC  
13 1418 (1977).

14 The present petitioners have, nevertheless,  
15 alleged particular interests in addition to their presence  
16 close to the plant, which are legally sufficient to give  
17 them standing as a matter of right. One such allegation  
18 is that they use the area for recreation purposes. In  
19 Mississippi Power & Light Co. (Grand Gulf Nuclear Station,  
20 Units 1 & 2), ALAB-130, 6 AEC 423 (1973), petitioner for inter-  
21 vention lived 50 miles from the site and alleged that he  
22 and his family "use the area in the immediate vicinity of  
23 the site for recreation and other purposes" (at 425). His  
24 standing was upheld based not on his distance from the  
25 plant but on the assertion that he used the area for  
26 recreation purposes.

27 Other allegations of the amended petition include  
28 that the petitioners consume fish, produce, dairy products  
5 - memo in support of amended petition to intervene

1 and meat and breathe air which would or might be  
2 contaminated by the presence of the plant. The fact that  
3 these particular environmental interests are shared by  
4 many people in addition to the petitioners does not mean that  
5 standing should be denied. Sierra Club v. Morton, 405 U.S.  
6 727 (1972); Duke Power Co. (Catawba Nuclear Station, Units  
7 1 & 2), 6 AEC 811 (1973).

8 Another allegation in the amended petition is  
9 that at least one member of Hanford Conversion Project, A.C.  
10 Rolls, uses land close to the site for farming and grazing  
11 purposes. Allied-General Nuclear Services (Barnwell  
12 Fuel Receiving and Storage Station, ALAB-328, 3 NPC 420,  
13 found standing for a group called Pickens Street  
14 Organization, which operated a restaurant and food store, in  
15 proceeding regarding application for a materials license,  
16 where Pickens Street alleged that the transportation of spent  
17 fuel near its farms might occasion harm to the produce,  
18 making it unfit for sale or consumption.

19 Petitioners also allege that the members of  
20 Hanford Conversion Project who own land near the plant may  
21 suffer economic loss because of decreased rental and sales  
22 value and difficulty in renting and selling their land.  
23 The allege that some members of the Hanford Conversion  
24 Project may lose their jobs in event of plant accident.  
25 They allege that food costs may rise for all petitioners  
26 because of contamination near the site. Allegation of  
27 is sufficient to establish standing where the economic harm  
28 economic harm/is occasioned by the impact a facility would  
have on the environment. Jersey Central Power & Light Co.

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1 (Forked River Generating Station, Unit 1), ALAB-139, 6  
2 AEC 535 (1973); Pacific Gas & Electric Co. (Diablo Canyon  
3 Nuclear Power Plant, Units 1 & 2), ALAB-223, 8 AEC 241  
4 (1974). The environmental effects of the proposed plant  
5 would cause the decrease in property values, the loss of  
6 jobs, and the rise in prices, so that the economic harm  
7 alleged is a particular interest sufficient to give HCP  
8 standing as of right.

9 These allegations of petitioners are of particular  
10 injuries that will probably result from the action involved.  
11 They fall within the zone of interests to be protected and  
12 regulated both by the National Environmental Policy Act  
13 (NEPA) and by the Atomic Energy Act (AEA).

14 Purpose of NEPA, as per 42 U.S.C. 4331(b), is to:

15 (1) fulfil the responsibilities of each  
16 generation as trustee of the environment for  
succeeding generations;

17 (2) assure for all Americans safe, healthful,  
18 productive, and aesthetically and culturally  
pleasing surroundings;

19 (3) attain the widest range of beneficial uses  
20 of the environment without degradation, risk  
21 to health or safety, or other undesirable and  
unintended consequences; . .

22 Purpose of the AEA, as per 42 U.S.C. 2011, includes  
23 assuring that

24 (a) the development, use, and control of atomic  
25 energy shall be directed so as to make the  
maximum contribution to the general welfare. .

26 Therefore, these petitioners have made the  
27 requisite allegations of particular injuries, within protected  
28 zone of interests, and should be granted standing as a matter

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of right.

B. Standing as a matter of discretion.

In the alternative, petitioners should be granted standing as a matter of discretion. The primary factor to be considered in deciding whether to grant discretionary intervention is the ability of the petitioner to make a valuable contribution to the development of a sound record on a safety or environmental issue. Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 & 2), 4 NPC 610 (1976).

The amended petition alleges specialized education and pertinent experience of the petitioners, and their ability to bring in expert witnesses. Clearly they are capable of making a valuable contribution. Public Service Co. of Oklahoma (Black Fox Station, Units 1 & 2), ALAB-397, 5 NRC 1143, 1149 (1977).

The Pebble Springs opinion indicates five other considerations to be made in granting discretionary intervention (at 616). The petition on its face adequately addresses all of these. Petitioners' property, financial, and other interests are numerous and significant. The possible effects on petitioners of granting an operating license are numerous and significant. As alleged, they have no other means to protect their interests, and there are no other intervenors or other parties available to protect petitioners' interests. The contentions of the petition indicate that petitioners intend to raise new evidence on issues considered at the 1973 construction permit proceedings

1 in their efforts to protect their health, safety, and  
2 financial interests, which is appropriate in the present  
3 proceedings and will not inappropriately broaden or delay  
4 them.

5 Accordingly, petitioners ask that they  
6 be granted intervenor status as a matter of right, with  
7 full opportunity to participate in all issues in contention;  
8 or, in the alternative, intervenor status as a matter  
9 of discretion, with full opportunity to present proof and  
10 participate in full hearing on all contentions raised by  
11 them. Pebble Springs, supra, 4 NRC 610 (1976).

12 Respectfully submitted,

13  
14 *Ray E. Dault*  
15 of petitioners

16  
17  
18 Prepared by:

19 *Doreen L. Nepom*  
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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
WASHINGTON PUBLIC POWER ) Docket No. 50-397 OL  
SUPPLY SYSTEM )  
(WPPSS Nuclear Project No. 2) )



INSERT TO PETITIONER'S AMENDED  
PETITION FOR LEAVE TO INTERVENE

The attached are pages to insert into the Petition for Leave to Intervene (Amended) filed this date under separate cover. Also attached are Affidavits of HCP members Long of Richland, Fuller of Yakima, Beadle of Yakima, and Snow of Yakima. Copies of these documents have been served on the following by deposit in the United States mail this 10th day of November, 1978:

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*Susan M. Garrett*  
Susan M. Garrett, pro se and on behalf  
of the Hanford Conversion Project

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CONTENTION III: COST-BENEFIT ANALYSIS

Neither the Applicant nor the NRC has prepared a rigorous, up-to-date, or objective cost-benefit analysis of WTP-2. This inadequate and deficient analysis violates the National Environmental Policy Act and the Commission's regulations, and (2) fails to adequately demonstrate financial qualification of the Applicant to engage in the activities to be authorized by the Operating License. These deficiencies result in noncompliance with criteria for issuance of an Operating License as outlined in 10 CFR 50.57.

BASIS

Any alleged cost-benefit analyses (or, as the Applicant likes to call them, "benefit-cost" analyses) prepared to date (1) overstate the benefits of WTP-2, (2) understate or completely ignore the costs of operating WTP-2, (3) understate or ignore the benefits of any alternatives to operating WTP-2, and (4) overstate the costs of alternatives. The result is a gross inadequacy; the obligation under NEPA to balance construction and operation of WTP-2 against alternatives, including deferral or non-operation of the project, are totally ignored. ER Ch. 11.

WTP-2 has had a long history from inception to the present, and has been considerably delayed in construction. Application for Construction Permit was first filed in August, 1971, and fuel was originally anticipated to be loaded in April, 1977 (ER 2.2.1-5; N.B.: this type of page notation indicates reference to the original ER filed by Applicant); as of this time, the plant is not expected to be commercially operational until May, 1981 (ER 11.2-1). During this long period, considerable changes have occurred: new information concerning the potential of conservation as a "generation" source and alternative generating sources have been developed; the price of electricity has drastically increased, and shows signs of increasing further; and demand for electricity has drastically reduced in terms of growth rate. Information and developments have been generated which would certainly have influenced prior decisions had the information been available at that time.

Moreover, the costs which will be incurred should WWP-2 be permitted to operate prematurely are costs that will be borne by the entire region: WWP-2 is a genuinely regional facility. Since all its generation will go to BPA, all BPA ratepayers and customers will bear "any costs or losses" produced by WWP-2. ER 1.0-4. An inadequate assessment of the costs will be a regionally-borne burden. Moreover, WWP-2 is unusual and distinct from many plants in other parts of the country: it is located on one of the largest rivers in the U.S., which services through irrigation an extensive agricultural area, which serves as the border for no less than three separate states, and which flows past one of the largest population centers in the region. It is not as isolated as utility planners would like to think, and it is not perceived as such by Northwest residents.

As was discussed extensively infra, recent evidence has developed to indicate that WWP-1 will not be needed, certainly not as soon as it is planned to begin. Where the power to be generated is not genuinely needed, it cannot be construed as a "benefit." It should be noted that power generation is listed as the major "benefit" in the "updated" ER Table 11.4-1, which supposedly summarizes costs and benefits. With the exception of taxes, use of byproduct heat for some minor agricultural experiments, some overinflated employment claims, and a visitor's information center of questionable objectivity, power is the only benefit claimed.

The claim that tax benefits are generated is spurious: as noted above, the costs of the facility will be borne by the entire region, and one of these costs are taxes which may be paid by WWPSS. Taking money from one part of the region and placing it in another part, and then claiming that the region has benefitted, is questionable logic at best.

In terms of jobs provided, WWP-2 will employ only about 50 local workers, and the vast majority of those will be employed in non-salaried, hourly-wage jobs. The project will import 54 workers from outside the region to add to the area's support burden; nearly all of these persons will be highly salaried. ER Table C 8.9. This comprises a total work force of about 104 persons, or .14% of the Tri-Cities population of 72,000. ER Table C 8.2-4. Although

the ER claims that 9,400 jobs (primary and secondary, are created by the project, there is absolutely no substantiation. ER 3.1.1-4. Even if one were to assume the 9,400 figure correct, the capital cost of the project per job is over \$100,000 per job. ER 11.4-1. The ER itself admits that Hanford projects are subject to, and vulnerable to, political pressures and uncertainties. The total capital cost of the project, \$1.077 billion, is an amount that was not invested in enterprises less vulnerable to political pressure.

The "benefits" claimed for the visitor's information center are items which might actually be considered costs by many. The center will allegedly educate the public as to the need for (nuclear) power and the safety inherent in nuclear generation. If it is at all like others of its ilk, it should not be supported by ratepayer's money, let alone claimed as a benefit in an analysis. The IFC should not countenance pro-nuclear propaganda in its evaluations of costs and benefits.

Costs initially assumed for the facility in the early 1970's have escalated massively, and must now be factored into an updated analysis to satisfy the requirements of NEPA; this has not yet occurred. For example, the original ER estimated the cost of WPP-2 power as 6.2 mills/kwh (ER 2.5.2-6). This estimate assumed, among other things, capital costs of \$287 million (1971 estimate, ER 3.1.2-1) and a capacity factor of 85% (1971 estimate, ER 2.5.2-12). Now, a half-dozen years later, the cost of WPP-2 power is estimated at 20 mills/kwh (ER 2.5.7, 1977). This is a tripling of estimated costs. The increment is based upon new estimates of capital cost of \$1.077 billion (ER 11.4-1, a near-quadrupling of estimated costs) and revised capacity factor estimates of about 60% (ER 2.5.7). Moreover, the ER notes that these capacity factor estimates are subject to deviations of as much as 15 to 20 points. (ER 2.5.7) Furthermore, new information generated from an analysis of the actual performance of reactors the size of WPP-2 indicates an average capacity factor of only 16%, based on 22 unit-years of experience. Kormanoff, Table 3.1 of testimony before the New Jersey Board of Public Utilities, Docket No. 762-19L, Oct. 9, 1978.

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Koranoff's estimates of total fuel cycle costs are impressive: if one considers price of mining, conversion, enrichment, fabrication, spent fuel storage, spent fuel shipping, and spent fuel disposal, the total cost of fuel alone is estimated as 13.76 mills/kwh. Koranoff, supra, at p. 139. Moreover, the ER nowhere discusses the impact of the President's no-reprocessing decision on fuel availability or cost; in fact, the ER assumes availability of recycled plutonium as a fuel supplement. ER 2.5.2-11. The Applicant now estimates annual operating costs alone as 22.5 mills/kwh. ER 11.4-1, assuming 63% capacity factor. The tremendous rise in cost of nuclear fuel since the early 1970's is nowhere discussed in the ER. The price of uranium fuel has increased from \$6-8 per pound in 1973 to over \$40 per pound in 1978. By way of contrast, coal costs for long-term contracts have increased by only about 6% per year. "Nuclear Power Costs," supra at 32. These increases must be factored into a cost-benefit analysis.

These are not the only costs inherent in operation of WTP-2 which have been underestimated or totally ignored. The Applicant asserts that it has set aside \$35 million for decommissioning costs, and has estimated 8% of construction costs for the cost of dismantling the plant. The figures do not jive: \$35 million is only 3.2% of \$1.077 billion. Moreover, a Congressional subcommittee report has estimated that decommissioning may cost from 25 to 100 percent of the original cost of a nuclear plant, depending on the method chosen. "Nuclear Power Costs" at 22. The Applicant does not have any specific plans developed as to which method will be used. ER Q. 8.11.

Moreover, the ER does not consider any of the economic impacts of the 1977 no-recycle decision, such as the cost of ever-expanding onsite storage (the NRC does require consideration of onsite impacts of spent fuel storage; see infra), or the possible non-availability of any permanent waste storage site, or the high prices that may have to be paid if storage proves to be a premium item. ER 2.5.2-10,11 assumes that fuel reprocessing will occur. The negative costs of adding to the already massive spent fuel burden the nation faces through unnecessary operation of an unneeded plant is not considered; WTP-2 will produce about 40 tons of spent fuel waste each year.

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Nuclear plants the size of WPP-2 are very large; their size contributes to a high unreliability. This means that a supply system must carry a large proportion of reserve capacity on standby to replace the nuclear plants when they cannot operate. A more sensible approach is to build smaller units: according to one expert in utility economics, 1,800 megawatts installed in three coal units is as reliable as 2,300 megawatts in two nuclear units. "Nuclear Power Costs," at 29. This alternative to construction and operation of WPP-2 was never considered in any cost-benefit balancing.

NEPA requires that resource commitments be evaluated. Inexplicably, the investment of \$1.077 billion was never evaluated at any time as a "resource commitment." Massive amounts of capital invested in nuclear plants cannot be invested elsewhere in the economy.

Moreover, new studies of the effects of exposure to low level radioactivity among nuclear workers by Mancuso and others at the Hanford Reservation have disclosed the possibility of higher risk at presently "acceptable" exposure levels. There is nationwide controversy over this issue brewing, and by the time that WPP-2 is actually operating, more restrictive standards may be in effect. See Kormanoff, infra. Possible increased negative impacts of low level exposure are a cost which should be factored into any cost-benefit analysis.

The costs enumerated above are, in most cases, substantial. They have been either ignored or softpedaled in the Applicant's cost-benefit analyses. If they were properly factored into comparisons that were objective of WPP-2 costs and the costs of various alternatives, the balance would certainly come out in favor of the alternatives. A nuclear plant requires, for example, an overall capital requirement 134% greater than does a comparable coal unit. Kormanoff, C., "Pouring Money Down the Nuclear Ratole," Rain Magazine, Dec., 1977. The estimated levelized generating cost for a mid-1950's nuclear plant is 9¢ per kwh; that for coal is 6¢. Kormanoff, supra, Table 1.1. The excess cost of nuclear power relative to coal power for these plants for the Pacific Northwest states is 49% per kwh. Kormanoff, supra. Clearly, where WPP-2 capital costs have nearly quadrupled, where fuel costs have increased by a factor of 5, where the estimated cost of WPP-2 power per kwh has tripled in about six years, the original cost-



benefit balance done relative to coal and other alternatives should be re-examined. This new information would almost certainly have led to different conclusions had it been available in the early 1970's.

By far the most glaring omission in any WNP-2 cost-benefit analysis is that of the alternative of conservation, the potential of which was discussed extensively supra. None of this information was available in the early 1970's, and would certainly have led to different decisions if it had been. WNP-2 was allegedly planned to meet new load growth. The possibility, and indeed, the strong likelihood that a great deal of this growth may just not materialize would certainly have borne heavily on the results of any cost-benefit analysis. So, too, would information which indicates (SCM study, supra) that electricity can be "produced" by using it more efficiently for about one-sixth the cost of new nuclear generation without loss of jobs or lifestyle changes. A net annual cost of \$48 million created by operation of WNP-2 would be avoided. ER Table 3.1.2.3-1. Mention of conservation in the ER is limited to extremely superficial enumeration of various conservation incentives offered by WPSS member utilities, with no analysis or evaluation of how such activities could or might impact on the issue of WNP-2 generation. Indeed, the ER assumes that massive increase in electricity use is unavoidable, despite increases in cost. ER 3.1-1. It should be noted that ER discussions of need for power focus heavily-- and quote extensively-- from material prepared by the BPA Hydro-Thermal Power Program; BPA's federal charter specifically requires it to encourage the widest possible use of electricity. GAO study, supra, at 7.5. An indication of how great voluntary conservation impacts can be is provided in the ER itself (although, of course, without comment or evaluation), in a table of actual load growth from 1972 through 1976:

1972-3	5.5%
1973-4	1.1
1974-5	6.2
1975-6	3.3

The extremely low growth rate in 1973-4 was the result of voluntary curtailment of electricity use by the region during a period of unusually low rainfall.

ER Q. 1.1.

It may be recalled that a large proportion of the Northwest's electricity is used for domestic space heating and hot water heat, which are extremely vulnerable to use of currently on-shelf solar technology, if used in decentralized fashion. The region's sun belt east of the Cascades receives sun radiant energy comparable with that of large portions of the Midwest, and about 80% as much as deserts in the Southwest. Solar energy can still be collected at reduced levels under moderately cloudy conditions. In May, 1977, the Coordinator of Battelle Laboratories' solar research program in the Northwest estimated that the region would meet 25 to 35 percent of its energy needs with solar energy using on-the-shelf technology. It could replace, he said, a large part of electrical heating in houses and commercial buildings, heat water, and supply low-grade industrial process heat. (All information in the paragraph from the GAO report, supra, at pp. 4.9, 4.10.) Solar energy was nevertheless dismissed in 9 lines in the ER's "updated" analysis of alternatives.

The GAO report also suggested the viability of the following alternatives, none of which were evaluated in the ER analysis: (1) 63.5 percent of the region's hydro capacity is as yet undeveloped, according to the Federal Power Commission (p. 4.5); (2) wind energy could ultimately generate between 500 and 2,000 MW within the region, according to the NEMP study cited supra: Oregon State University has estimated that 2510 MW could be installed in Oregon alone (OSU, "Wind Power," Jan. 1978, by Hewson et al., prepared for EPA); (3) the region has "significant" geothermal potential: Geothermal energy has been used for several years for space heating in Boise, and Klamath Falls, Oregon (p. 4.10). Yet the ER "update" on alternatives totaled only 12 lines. ER 9.1.

CONTENTION VII: SPENT FUEL STORAGE

Neither the Applicant nor the NRC has prepared a rigorous, up-to-date, or objective evaluation of the on-site effects of spent fuel storage at the WTP-2 site (a) in expanding and uncertain quantities beyond those originally planned at the time the Construction Permit was issued, and (b) for an indefinite and uncertain period of time. Moreover, there exists no such analysis and evaluation of the on-site impacts of the probable use of the Hanford Reservation as a spent fuel storage repository for the entire nation. These deficient analyses violate the National Environmental Policy Act and the Commission's regulations, and fail to adequately demonstrate financial qualification of the Applicant to engage in the activities to be authorized by the Operating License. These deficiencies result in noncompliance with criteria for issuance of an Operating License as outlined in 10 CFR 50.57.

BASIS

Decisions of the Commission require that the on-site impacts of expanded spent fuel storage are appropriate for consideration by an Atomic Safety and Licensing Board. The Board in the Vermont Yankee case held:

"...this Board is foreclosed from considering those long term ultimate waste disposal matters,...."

This determination, however, does not prevent the examination into all of the effects on-site of the proposed enlargement of the spent fuel pool, including, for example, the expected total radioactivity to be developed from the storage pool, the extent of releases of radioactivity in case of a rupture of the storage pool, the capacity of the spent fuel pool to retain its integrity.../A/ll such and similar cause and effect environmental and safety considerations are validly within the scope of the Intervenor's contentions."

In the Matter of Vermont Yankee Nuclear Power Corporation (Vermont Yankee), Locket No. 50-271, CL No. DPR-28, May 26, 1977, emphasis added, p. 3. It is thus clear that "ultimate" matters of waste storage are specifically distinguished from specific on-site impacts of such storage at an individual site. This holding was not contradicted by the Commission's ruling in the Prairie Island Case cited by the Applicant in this matter at p. 13 of its response to our initial petition; Prairie Island also confined itself to discussion of "ultimate" (i.e., off-site and longterm) waste matters. ALAB-455, 1/27/78

Insert, C. 9  
at p. 18. This opinion has been widely misread by utilities spokespersons and by the NRC itself on occasion; we are not concerned, in the above contention, with the ultimate disposal of accumulating "MP-2 spent fuel. We are concerned with what will happen to it <sup>at the site</sup> during the plant's operating lifetime. Such contentions were ruled admissible in the recent NRC proceeding involving expanded spent fuel storage at the Trojan Nuclear Plant (ocket No. 50-344).







BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
WASHINGTON PUBLIC POWER )  
SUPPLY SYSTEM )  
(WPPSS Nuclear Project No.2) )

Docket No. 50-397 OL

AFFIDAVIT OF DEBORAH D. BEADLE

I, DEBORAH D. BEADLE, hereby certify the following:

1. I am a member of the Hanford Conversion Project.
2. I reside at Rt. 2 Box 440B Yakima, WA 98908
3. My place of residence is located approximately 60 miles from the site of WPPSS Nuclear Project No. 2.
4. My interests in the above-captioned proceeding are as discussed in the accompanying Amended Petition to Intervene.
5. I have the following specific personal, financial and property interests in this proceeding: Having spent much time and energy caring for my health and my life, I care enough to intervene in preventing this monstrosity of death dealing energy.
6. I authorize Susan M. Garrett, Helen Vozenilek, Terry SoRelle, or any other person designated by the Hanford Conversion Project Coordinating Committee to represent myself and my interests in the above-captioned proceeding.

Respectfully submitted,

Deborah D. Beadle  
DEBORAH D. BEADLE

Subscribed and sworn to before me this 6<sup>th</sup> day of Nov., 1978

Rebecca L. Cullen  
Notary Public in and  
for the State of Washington  
residing at Yakima.  
My Commission expires Jan 1982

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of )  
WASHINGTON PUBLIC POWER )  
SUPPLY SYSTEM )  
(WPPSS Nuclear Project No.2) )

Docket No. 50-397 OL

AFFIDAVIT OF ALBERT SNOW

I, ALBERT SNOW, hereby certify the following:

1. I am a member of the Hanford Conversion Project.
2. I reside at 308 N. 6th Street, yakima, WA 98901
3. My place of residence is located approximately 58 miles from the site of WPPSS Nuclear Project No. 2.
4. My interests in the above-captioned proceeding are as discussed in the accompanying Amended Petition to Intervene.
5. I have the following specific personal, financial and property interests in this proceeding: Interest in real property, recreational pursuits and concerns for the economic and health status of myself, family and companions in the area.
6. I authorize Susan M. Garrett, Helen Vozenilek, Terry SoRelle, or any other person designated by the Hanford Conversion Project Coordinating Committee to represent myself and my interests in the above-captioned proceeding.

Respectfully submitted,

Albert Snow  
ALBERT SNOW

Subscribed and sworn to before me this 6<sup>th</sup> day of Nov., 1978

Rebecca L. Cullen  
Notary Public in and for  
the state of Washington  
residing in yakima.  
My Commission expires Jan 1982