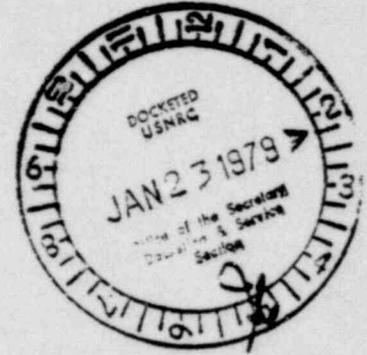


UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



BEFORE THE COMMISSIONERS

In The Matter Of :
OFFSHORE POWER SYSTEMS : Docket No. STN 50-437
(Manufacturing License for :
Floating Nuclear Power Plants) :

NATURAL RESOURCES DEFENSE COUNCIL BRIEF IN
RESPONSE TO OPENING BRIEFS

Stripped of the deluge of paper, legal citations and argumentation, this case boils down to choosing between one of three possible conclusions.

1. The Commission accepts the view articulated by the Staff both here and in the liquid pathway study (LPS) that the Class 9 accident at an FNP involves significantly greater risk than a Class 9 accident at a land-based plant (LBP).

2. The Commission accepts the view articulated by the applicant that the Class 9 accident at an FNP involves risks within the range of risks at the LBP.

3. The Commission concludes that, until an evidentiary hearing is held, it is not possible to decide whether the applicant or the Staff is correct.

If it were not clear before, it is clear now that deciding which of these conclusions is correct is at the heart of the applicant's case and that the decision must depend upon the

resolution of the following factual matters:

1. Is the probability of a core melt accident at an FNP so low that regardless of the consequences of such an accident it must not be considered in deciding whether to license the FNP?

2. Are the consequences of a core melt accident at an FNP so severe that regardless of the probability of such an accident it may be considered in deciding whether and under what conditions to license the FNP?

3. Are the combined probability and consequences of a core melt accident at an FNP sufficiently great to permit consideration of the core melt accident in deciding whether and under what conditions to license the FNP?

Applicant is obviously aware that the issue it raises cannot be resolved without an evidentiary hearing and spends 100 pages attempting to persuade the Commission to miss the point. Despite this herculean effort it cannot obscure the obvious: the Commission cannot and would not allow a plant to be built or operated which in its judgment did not provide reasonable assurance of adequate protection for the public health and safety, even if it had previously indicated in its policy statements and decisions that plants similar to the one proposed were licensable. As we observed in our opening brief, the Commission is uniquely relieved of the responsibility of being foolishly consistent. It is obligated to change its mind where new facts and new circumstances warrant that change.

While we do not agree that the AEC/NRC history supports the applicant's assertion that prior to January 1978 it was clear Commission policy to essentially ignore the Class 9 accident in licensing nuclear plants,¹ even if that had been the position, it could not be applied in this case. The FNP does represent a special circumstance² as evidenced by:

1. the December 4, 1971, letter from Dr. Peter A. Morris to the applicant admonishing them to be sure that the FNP be designed so that it would be "inherently as safe as a land-based plant." The Staff is now proposing the design modification they believe is required to meet that standard.

1/ The prior action on Class 9 events does not reflect any clear unequivocal decision that the core melt event should not be considered in the FNP. Court cases carefully noted that on the record of that particular case the exclusion of the Class 9 accident analysis was not arbitrary and capricious and Appeal Board decisions recognized the inherent right to demonstrate that overall risk might be higher for a particular plant (because the cases all involved LBPs where consequences were essentially the same, the focus was on special circumstances regarding probabilities). Moreover, the example given by the applicant of the application of the alleged "fairness" principle (New England Power Co., ALAB-390, 5 NRC 733 (1977), review denied CLI-77-14, 5 NRC 1323 (1977)) rather proves the folly of such a position. On August 23, 1978 (43 Fed.Reg. 37475), the Commission acknowledged that the substantive conclusion reached in that case was incorrect and proposed to amend its regulations to prevent further error. Surely it would have been better to adopt the policy as soon as the error was apparent out of fairness to the health and safety of the public.

2/ The fact that the FNP is a first of a kind reactor whose uniqueness has been recognized in special regulations, special reports, special ACRS concerns, etc., makes the applicant's concern about changing regulatory standards ring hollow. Applicant's Br., pp. 67 et seq. What is occurring is the initial evolution of standards for this new concept. Applicant is surely aware that until it has a manufacturing approval it has no approved standard design upon which it can rely.

2. the ACRS letters of November 15, 1972, and October 18, 1973, focussing particularly on the core melt accident and measures to mitigate its consequences.
3. the 1975 decision of the Staff to undertake the LPS and the results of the study which demonstrate that the consequences of a core melt accident at an FNP are substantially higher than for an LBP.
4. the FES Addendum Part III in this case in which the Staff expresses its judgment that the higher total risk associated with a core melt accident at an FNP requires the inclusion of certain conditions to mitigate the consequences of such an accident in order to make the FNP comparable in risk to a current generation LBP.

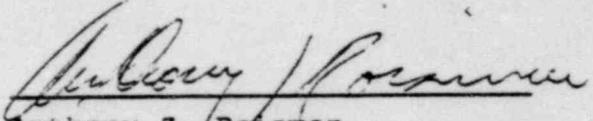
To these special circumstances must be added the Commission's formal repudiation of the overall risk estimates of WASH-1400 and the absence of any reliable substitute for those estimates. Even if the Staff and/or applicant believes that the probability of a core melt accident for FNPs and LBPs is essentially the same and is less than 10^{-6} , that belief must be tested in the evidentiary record of this case and cannot be assumed. The brief filed by the Union of Concerned Scientists (UCS) cogently summarizes the shaky foundation of any judgment about accident probabilities when WASH-1400 is disregarded.

Applicant devotes several pages (Br., pp. 93-97) to an attack on the Staff's inability to articulate objective criteria for distinguishing between the "severe" and the "so severe." We share the applicant's frustration with any subjective and essentially unreviewable conclusions of the Staff with respect to Class 9 accidents. The same ambiguity and use of loaded but meaningless phrases such as "so small," "extremely low," "extremely small," "so negligible," "very nearly equal to zero," "highly conservative" run throughout the citations to Commission and Staff articulation of the risk of a core melt accident at an LBP upon which the applicant relies (see generally Applicant's Opening Br., pp. 31-32, 43-53). Although the LPS makes an effort at an objective articulation with respect to consequences of a core melt accident at an FNP (see Staff Opening Br., pp. 10-11), as a result of the proper repudiation of WASH-1400, nothing similar exists for accident probabilities. Thus applicant has shot the right arrow but it has hit the wrong target. The argument further substantiates the inappropriateness of reliance by the applicant on an assumed but undefined low probability for the occurrence of a core melt accident at the FNP.

For all these reasons, we believe it is unavoidable that in this case the Commission must permit a thorough examination of the risk of a core melt accident at the FNP, must allow consideration of the imposition of requirements for engineered safeguards to reduce the consequences of the core melt accident

and must allow a record to be developed upon which a judgment can be made by the hearing board on the probability of a core melt accident at an FNP.

Respectfully submitted,



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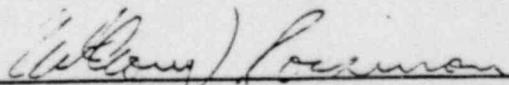
Dated: January 22, 1979

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OFFSHORE POWER SYSTEMS) Docket No. STN 50-437
(Manufacturing License for)
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing NRDC
BRIEF IN RESPONSE TO OPENING BRIEFS were mailed today,
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