March 26, 1982

DOCKETE

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION



APPLICANT'S MOTION FOR RECONSIDERATION OF MARCH 18, 1982 MEMORANDUM AND ORDER RAISING SUA SPONTE ISSUE

By Memorandum and Order dated March 18, 1982, the Board stated its intention to raise <u>sua sponte</u> the issue of whether, on the basis of the Emergency Feedwater System (EFWS) reliability, additional primary system depressurization capability should be added for the Waterford 3 plant. The Board ordered that, by April 20, 1982, the Staff and Applicant submit written direct testimony on (a) the probability of failure of the EFWS following a small break loss-of-coolant accident, and (b) the necessity of adding a "feed and bleed" (primary system depressurization) capability to provide cooling in the event of a failure of the EFWS.

B203310542 B20326 PDR ADDCK 0500038 However, the March 18, 1982 Memorandum and Order gives no indication whether, at the time the Board made its <u>sua</u> <u>sponte</u> determination, it was aware of a very recent ACRS Subcommittee meeting which bears directly on and helps place in proper perspective the earlier materials submitted with Board Notification 82-12, on which the Board premises its <u>sua sponte</u> determination. Moreover, for the further reasons stated below, Applicant believes that the Commission's <u>sua</u> <u>sponte</u> rule precludes the Board's exercise of its <u>sua sponte</u> authority with respect to this issue on the facts of this case. Accordingly, Applicant respectfully requests that the Board reconsider its decision of March 18, 1982, to introduce the issue of EFWS reliability and depressurization capability as a matter in controversy in this proceeding. $\frac{1}{}$

NRC requirements for PWR cooling include the following criterion with respect to the EFWS (sometimes referred to as the Auxiliary Feedwater System, or AFWS) as stated in the

1/ Because of the limited time available before April 20, 1982 (the date by which written testimony on the sua sponte issue must be filed) and before May 3, 1982 (the date of commencement of the hearing session for which the sua sponte issue is scheduled), and because the Board's sua sponte determination is presently before the Office of the General Counsel and the Commission, Applicant has served copies of this motion on the Office of the General Counsel and on the Commission, for their consideration in conjunction with their review of the Board's March 18, 1982 Memorandum and Order. See Tr. 126.

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NRC's Standard Review Plan (NUREG-0800), Section 10.4.9, for meeting General Design Criteria 34, Residual Heat Removal, and 44, Cooling Water:

> An acceptable AFWS should have an upavailability in the range of 10 to 10 per demand based on an analysis using methods and data presented in NUREG-0611 and NU-REG-0635. Compensating factors such as other methods of accomplishing safety functions of the AFWS or other reliable methods for cooling the reactor core during abnormal conditions may be considered to justify a larger unavailability of the AFWS.

NRC regulations do not require plants to be designed for loss of all feedwater (both main and emergency feedwater), and there are no requirements to install an alternate decay heat removal system independent of the steam generator system.

The Staff has reviewed the EFWS for Waterford 3 and concluded at page 10-19 of the July 1981 Safety Evaluation Report that "the design of the emergency feedwater system and supporting systems is in conformance with the Commission's regulations as set forth in GDC 2, 4, 19, 44, 45, and 46, and meets the guidelines contained in Regulatory Guides 1.26, 1.29, 1.62, and 1.117, and BTP ASB 10-1 and ASB 3-1 and, therefore, is acceptable". Further, as part of the new requirements stemming from the Three Mile Island accident, the NRC assesses the relative reliability of the EFWS for each plant under various loss of feedwater transients and other postulated failure conditions by determining the potential for EFWS failure as a result of common causes, single point vulnerabilities, and human error. The Staff, at page 10-20 of the Waterford 3 SER, found the EFWS reliability assessment to be acceptable.

Since then, there has been no allegation, indication, or suggestion that the reliability analysis specific to the Waterford 3 EFWS is unacceptable or in any way warrants investigation by the Board in this proceeding.

The Board bases its interest in the EFWS issue on the materials submitted by the Staff in Board Notification 82-18, which include a draft SER supplement on the EFWS issue for the Palo Verde plant. That plant, like Waterford 3, utilizes a nuclear steam supply system (NSSS) manufactured by Combustion Engineering, Inc. The draft SER supplement was prepared by the Staff to address the concern expressed by the Advisory Committee on Reactor Safeguards (ACRS) in its Palo Verde report dated December 15, 1981. The ACRS stated that, because the Palo Verde design does not include capability for direct, rapid depressurization after shutdown, the reliability of the EFWS is an important safety factor. The ACRS recommended that the Staff and the Palo Verde applicant "give additional attention to the matter of shutdown heat removal for Palo Verde and develop a detailed evaluation and justification for the position judged to be acceptable".

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In short, the ACRS identified the issue as an open item for further consideration; it did not recommend a design change or identify a "design deficiency" as suggested at page 2 of the Board's March 18, 1982 Memorandum and Order.

The Staff, in its draft SER supplement for Palo Verde, reviewed the ACRS concern and concluded that "the Palo Verde AFWS meets the staff reliability acceptance criterion $[10^{-4}$ to 10^{-5} per demand AFWS unavailability] and further that it is unlikely that the risk of core melt probability of 5 x 10^{-6} will be exceeded as a result of feedwater transients". The Staff's final conclusion was that "the Palo Verde shutdown heat removal capability is sufficiently reliable and conforms to applicable General Design Criteria and guidance without further requirements".

The Board's March 18, 1982 Memorandum and Order also made reference to the "reliability estimates of Rowsome and Murphy of the Division of Risk Analysis"_2/ for EFWS as being at variance with the Staff's reliability figures for the Palo Verde EFWS. It should be noted that the Palo Verde draft SER supplement was prepared subsequently to the Rowsome and

2/ Memorandum from Frank H. Rowsome and Joseph A. Murphy, Division of Risk Analysis, RES, to Bob Tedesco, Assistant Director for Licensing, Division of Licensing, NRR, and Themis Speis, Assistant Director for Reactor Safety, Division of Systems Integration, NRR, "Feed and Bleed Issue for CE Applicants", January 29, 1982.

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Murphy memorandum, and took that memorandum into consideration. In the Staff's memorandum dated February 4, 1982 transmitting the Palo Verde draft SER supplement to Darrell G. Eisenhut, Director, Division of Licensing, NRR, the Staff noted that the Rowsome and Murphy techniques are "somewhat controversial", and that their techniques and conclusions are currently being reviewed. In the report itself, Rowsome and Murphy characterize their work as a "quick and dirty" analysis in which they say they "have attempted a back-ofthe-envelope" probabilistic risk assessment. Since that time, new information has come to light which presumably would not have been available to the Board. At a March 16, 1982 meeting of the ACRS Subcommittee which is reviewing current Combustion Engineering reactor design on a generic basis, Rowsome appeared and significantly qualified the conclusions in the Rowsome and Murphy memorandum. Rowsome told the ACRS Subcommittee that this report had been prepared on very short notice, and that the recommendations made were overstated. Rowsome's recommendation to the ACRS Subcommittee was that the addition of PORV's (i.e., feed and bleed capability) should not be made a requirement for plants currently in the licensing process. Thus, neither the Staff (including Rowsome) nor the ACRS characterizes the reliability of the EFWS and the possible need for a feed and bleed capability as a serious safety issue in need of urgent resolution.

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It is also important to note that neither the Rowsome and Murphy paper nor any of the other documents cited in the Board's March 18, 1982 Memorandum and Order directly challenges or finds fault with the plant-specific EFWS reliability analysis for Waterford 3. By way of background, the Palo Verde NSSS is a Combustion Engineering "System 80" design; the Waterford 3 NSSS is not. The EFWS for Waterford 3 is not identical to the EFWS specified for the System 80, and the risk analysis for the Waterford 3 EFWS reliability, while conforming to the NRC's accepted techniques, would not be identical to the analysis for the System 80 EFWS. $\frac{3}{}$

The ACRS review history for Waterford 3 also differs from that of the Palo Verde System 80. EFWS reliability, in conjunction with the "feed and bleed" issue, has been specifically and extensively discussed with the ACRS Subcommittee for Waterford 3 on August 5, 1981 and again on March 3, 1982. Neither of the two ACRS reports for Waterford 3 (August 11, 1981 and March 9, 1982) expressed the concern cited by the Board from the Palo Verde ACRS report.

Finally, the Board characterizes the lack of a rapid depressurization capability following shutdown as a "design

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^{3/} There has been no suggestion, and there is no reason to believe, that the Waterford 3 EFWS is any less reliable than the EFWS specified for the System 80.

deficiency". Applicant takes strong exception to this characterization. The ACRS did not find the Palo Verde plant to have a "design deficiency". The Staff has no requirement for rapid depressurization following shutdown. The Staff's draft SER supplement for Palo Verde concludes that such capability is not required. And the Waterford 3 ACRS report identified no such "design deficiency".

The Commission's <u>sua sponte</u> rule at 10 C.F.R. §2.760a states that <u>sua sponte</u> issues are to be examined and decided by the presiding officer only if "a serious safety, environmental or common defense and security matter exists". As discussed above, an examination of the relevant documents, including those cited by the Board, does not support the proposition that Waterford 3 suffers a "design deficiency", or that, as stated by the Board at page 2 of its March 18, 1982 Memorandum and Order, "the issue of Feed and Bleed Capability may have serious safety consequences" or that a "serious safety...matter exists".

The Board noted in its Memorandum and Order that:

[T]he NRC Staff is continuing its evaluation of this issue and will issue a supplement to the Waterford SER. At this time, however, we cannot presume that this issue will be resolved to the Board's satisfaction.

Yet there is no reason to believe that the Staff will not satisfactorily resolve the issue in accordance with applicable

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safety standards and criteria. 4/ In any event, the mere pendency of an outstanding issue is not enough to satisfy the requirements of the Commission's <u>sua sponte</u> rule. The Commission recently held in <u>Comanche Peak</u> 5/ that factors "beyond the mere pendency of staff review" must be present and that the "apparent need to...monitor the staff's progress in identifying and/or evaluating potential safety or environmental issues" does not authorize a board to exercise the sua sponte authority.

For the foregoing reasons, Applicant respectfully requests the Board to reconsider its decision to raise the <u>sua</u> <u>sponte</u> issue identified in its March 18, 1982 Memorandum and Order.

Respectfully submitted, SHAW_PITTMAN, POTTS & TROWBRIDGE BY: Bruce W. Churchill, P.C. Delissa A. Ridgway

Counsel for Applicant

Dated: March 26, 1982

4/ The Staff appears to be addressing the issue on a generic basis for all recent Combustion Engineering units. To the extent such a generic resolution would be applicable to the Waterford 3 plant, it would not be in the interest of administrative economy and sound decision making practice to have the issue considered in an individual licensing proceeding.

5/ Texas Utilities Generating Co. (Comanche Peak Steam Electric Station, Units 1 and 2) CLI-81-36, _____ NRC___ (December 29, 1981). UNITED STATES OF AMERICA'82 MAR 26 P3:18 NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
LOUISIANA POWER & LIGHT COMPANY	Docket No.	50-382
(Waterford Steam Electric) Station, Unit 3)		

CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicant's Motion For Reconsideration of March 18, 1982 Memorandum and Order Raising Sua Sponte Issue." dated March 26, 1982, were hand-served to those on the attached Service List, this 26th day of March, 1982, except that those whose names are marked by an asterisk were served by deposit in the U.S. Mail, first class, postage prepaid, this 26th day of March, 1982.

Selisa A. Lickway

Dated: March 26, 1982

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of

LOUISIANA POWER & LIGHT COMPANY

Docket No. 50-392

(Waterford Steam Electric Station, Unit 3)

SERVICE LIST

Sheldon J. Wolfe, Esquire Administrative Judge Chairman, Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dr. Harry Foreman Adminstrative Judge Director, Center for Population Studies Box 395, Mayo University of Minnesota Minneapolis, Minnesota 55455

Dr. Walter H. Jordan Adminstrative Judge 881 West Outer Drive Oak Ridge, Tennessee 37830

Sherwin E. Turk, Esquire (4)
Office of the Executive
Legal Director
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Lyman L. Jones, Jr., Esquire Post Office Box 9216 Metairie, Louisiana 70055

Luke B. Fontana, Esquire 824 Esplanade Avenue New Orleans, Louisiana 70116

- * Atomic Safety and Licensing Board Panel
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555
- * Atomic Safety and Licensing Appeal Board Panel
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555
- * Docketing & Service Section (3) Office of the Secretary U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Chairman Nunzio Palladino U.S. Nuclear Regulatory Commission Washington, D.C. 20555

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Commissioner Victor Gilinsky U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Commissioner Thomas Roberts U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Commissioner John Ahearne U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Office of The General Counsel U.S. Nuclear Regulatory Commission Washington, D.C. 20555