

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
Louisiana Power & Light Company  
Waterford Steam Electric Station, Unit 3

Docket No. 50-382  
License No. NPF-38  
EA 89-69

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Louisiana Power & Light Company is the holder of Operating License No. NPF-38 issued by the Nuclear Regulatory Commission (NRC/Commission) on March 16, 1985. The license authorizes the licensee to operate the Waterford Steam Electric Station, Unit 3, in accordance with the conditions specified therein.

II

An inspection of the licensee's activities was conducted March 8-9, 1989. The results of this inspection indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated June 28, 1989. The Notice stated the nature of the violation, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violation. The licensee responded to the Notice of Violation and Proposed Imposition of Civil Penalty by letter dated July 28, 1989. In that response, the licensee admitted to the violation but requested that the violation be reclassified at Severity Level IV and that the proposed civil penalty be fully mitigated.

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III

After consideration of the licensee's response and the statements of fact, explanation, and arguments for mitigation contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support has determined as set forth in the Appendix to this Order that the violation occurred as stated and that the penalty proposed for the violation designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended 42 U.S.C. 2282, PL 96-295 and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Fifty Thousand Dollars (\$50,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S.


Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with copies to the Assistant General Counsel for Hearings and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, and NRC Resident Inspector at Waterford Steam Electric Station, Unit 3.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered in such hearing shall be:

whether, on the basis of the admitted violation of the Commission's requirements as set forth in the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II above, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Dated at Rockville, Maryland,  
this 2nd day of February 1990

## APPENDIX

### EVALUATIONS AND CONCLUSIONS

On June 28, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for a violation identified during an NRC inspection in March 1989. Louisiana Power & Light Company responded to the Notice on July 28, 1989. The licensee admitted the violation but requested a withdrawal of the civil penalty and a reclassification of the violation at Severity Level IV. Further, LP&L requested that should the NRC conclude a civil penalty is still warranted, after considering the company's arguments, it should mitigate the fine in its entirety with the amount of the mitigated fine being offset by LP&L's payment of an equal amount to Nichols State University. The NRC's evaluation and conclusions regarding the licensee's arguments are as follows:

#### Restatement of the Violation

##### Inoperable Emergency Core Cooling System (ECCS) Subsystem

Technical Specification 4.0.5 requires, in part, that inservice testing in accordance with Section XI of the ASME Boiler and Pressure Vessel Code shall be performed for the required pumps and that such testing shall be in addition to other specified Surveillance Requirements.

Technical Specification 3.5.2 requires that two independent ECCS subsystems shall be OPERABLE with each subsystem comprised, in part, of one OPERABLE high-pressure safety injection (HPSI) pump. With one ECCS subsystem inoperable, Technical Specification 3.5.2 requires that the inoperable subsystem be restored to OPERABLE status within 72 hours or at least be in HOT STANDBY (Mode 3) within the next 6 hours and in HOT SHUTDOWN (Mode 4) within the following 6 hours.

Contrary to the above, one ECCS subsystem became inoperable on November 22, 1988, and Waterford Steam Electric Station, Unit 3 was not placed in Hot Standby (Mode 3) and subsequently Hot Shutdown (Mode 4) as required by Technical Specification 3.5.2. Specifically, the B HPSI pump became inoperable on November 22, 1988, when it did not meet the recirculation flow requirements of Article 3000 of Section XI of the ASME Boiler and Pressure Vessel Code.

This is a Severity Level III violation. (Supplement I)

##### Summary of Licensee's Response to the Violation

The licensee admits to violating Technical Specification 4.0.5.a in that the inservice test (IST) program did not specify ranges for the fixed recirculation flowrate for the B HPSI pump in accordance with the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Article IWP-3100).

The licensee argues, however, that this violation resulted from a misunderstanding between LP&L and the Office of Nuclear Reactor Regulation (NRR). The licensee contends that the source of this misunderstanding occurred as a result of LP&L's

and NRR's differing interpretation of Relief Request 2.1.3 of LP&L's IST program that LP&L had requested from NRC. In Revision 1 to LP&L's IST program, LP&L proposed to test the applicable pumps using the fixed resistance flow path and measuring pump differential pressure to determine pump degradation. Pump differential pressure, coupled with pump vibration, would be used to determine test frequency and operability in accordance with Table IWP-3100-2, "Allowable Ranges of Test Quantities." As a result, LP&L established Alert, Required Action, and acceptable limits for HPSI pump differential pressure and vibration.

The licensee stated that plant personnel were concerned about testing with an unapproved IST program since the beginning of commercial operation in September 1985. They noted, however, that during a working meeting with NRC in October 1984, LP&L explained the basis for Relief Request 2.1.3 to NRC, and that this proposed testing method was not questioned.

The licensee acknowledges the receipt of a letter from NRR on May 20, 1988, that required, in part, the recording of all parameters (including recirculation flow) in Table IWP-3100-2 for the HPSI pumps in order to determine pump operability. The licensee argues that LP&L misinterpreted the intent of this letter because LP&L always intended to measure and record HPSI pump recirculation flow in accordance with Table IWP-3100-2. Rather, LP&L interpreted the letter to require that the resistance of the HPSI system be varied in order to establish either a flow or differential pressure reference value. The HPSI system has a fixed resistance testing flow path. Therefore, this requirement could not be accomplished with the system configured as it is. Because of this misinterpretation, the licensee contacted NRR in June 1988 in order to resolve this misunderstanding. The licensee stated that NRR concluded that the NRC contractor probably did not recognize that the HPSI system had fixed resistance flow paths. On this basis, LP&L concluded that this issue would be resolved in the forthcoming approval of LP&L's IST program (Revision 5).

The licensee noted in its response that the apparent reduced recirculation flow had no impact on pump operability. The licensee attributed the drop in indicated recirculation flow to a reversed flow indicating orifice that was discovered by technicians on January 31, 1989. After the flow orifice was placed in its proper position, the B HPSI pump recirculation flow was recorded at 24.5 gpm, which is approximately the minimum value of 25 gpm required by the pump vendor. The licensee did note, however, that pump recirculation flow is not an unimportant measurement. The licensee maintains that when the recirculation flow was determined to have decreased to a value of approximately 19 gpm on November 22, 1988, this condition was evaluated and determined not to adversely affect pump operability. This evaluation was made on the basis of acceptable differential pressure and vibration measurements, and sound engineering judgment. Since no alert and required action range flowrates were established, the pump was not declared inoperable. Recognizing that an adverse trend existed, the licensee initiated Condition Identification (CI) No. 259394 to inspect what was suspected to be a partially clogged B HPSI pump recirculation line flow orifice.

NRC Evaluation of Licensee's Response to the Violation

The NRC staff agrees with LP&L that the violation of Technical Specification 4.0.5.a occurred as stated; however, the NRC staff disagrees that this violation occurred as a result of a misunderstanding between LP&L and NRR. Any initial confusion relative to the licensee's compliance with IWP-3000 for the HPSI system was due to LP&L's incorrect description of the HPSI system test line as a fixed "flowrate" system instead of a fixed "resistance" system. Once that point was addressed in LP&L's July 8, 1988 letter, from the NRC staff's perspective there was no misunderstanding.

The alleged misunderstanding that the licensee refers to in its response to the Notice appears to be the fact that with a fixed resistance system, strict compliance with IWP-3000 for setting reference values cannot be achieved (such values are in fact dictated by the fixed resistance system). However, if this was a concern to LP&L, the NRC staff could not determine that fact by reviewing the licensee's IST program which committed to measuring, recording and evaluating differential pressure. If the differential pressure of the fixed resistance system could be adequately evaluated against a reference value, then so could the recirculation flowrate. It is the NRC staff's position that the May 20, 1988 letter, by reference to Table IWP 3100-2, makes clear that evaluation against a reference value for both recirculation flowrate and differential pressure is required. Yet, the licensee had only been measuring and recording the recirculation flowrate and had not explained why an adequate reference value for this parameter was not available when one was available for differential pressure.

With respect to degraded HPSI pump recirculation flow and its relationship to pump operability, NRC staff finds the licensee's response to this issue to be incomplete. Specifically, the licensee failed to recognize in its response that actual (and not just indicated) B HPSI pump recirculation flow had decreased. Examination of the B HPSI pump internals in May 1989 revealed a degraded pump condition. In addition to other B HPSI pump deficiencies, the licensee concluded that the origin of the set screw that was lodged in the B HPSI pump recirculation line orifice was from the pump's fourth stage impeller wear ring. Following the removal of the set screw and the repair of the pump internals, the pump was operated, and recirculation flow was recorded at a value that was higher than that measured immediately after the reversal of the flow detector orifice in January 1989 as well as after the replacement of the pump thrust bearings and realignment of the balance drum in February 1989. On this basis, the staff concluded that the recirculation flow for the B HPSI pump had actually degraded.

Although the licensee's investigation of the pump damage was not completely conclusive with respect to the cause of the damage to the pump internals, the licensee concluded that degraded recirculation flow did not cause or exacerbate the internal pump damage. This conclusion fails to consider the significance of the degraded flow condition. For a pump of this type, a low recirculation flow condition can either cause pump damage or be symptomatic of a pump or systemic problem. In this particular case, it appears that the reduced flow condition was, at least in part, indicative of pump degradation that was caused, in part, by inadequately performed maintenance. The significant

regulatory issue is that, had the licensee been fully complying with the provisions of Table IWP-3100-2 of the ASME Boiler and Pressure Vessel Code in November 1988, the B HPSI pump would have been declared inoperable at that time. Although the licensee had not yet completely determined the extent of the pump degradation in terms of the pump's ability to perform its design function as of June 7, 1989, the fact remains that significant deficiencies with the pump internals were discovered. The staff concludes that these significant deficiencies would have been found and corrected months earlier had LP&L been in full compliance with Table IWP-3100-2.

#### Summary of Licensee's Request for Mitigation

The licensee asserts that the circumstances surrounding the violation support substantial mitigation of the civil penalty. In arguing for substantial mitigation of the civil penalty, the licensee notes that LP&L has had good past performance in the area of surveillance testing at Waterford 3. The licensee further contends that the nature of the violation did not provide LP&L with the opportunity to identify the violation and as a result full credit under the enforcement policy should be given for prompt identification and reporting. The licensee states that once the issue of compliance with Section XI of the ASME Boiler and Pressure Vessel Code was understood, LP&L aggressively took steps to correct the testing criteria.

#### NRC Evaluation of Licensee's Request for Mitigation

In determining the proposed civil penalty of Fifty Thousand Dollars (\$50,000), the NRC staff took into account LP&L's good past performance in the area of surveillance testing. This was balanced against the fact that the licensee's corrective action was not prompt and the corrective action was initially narrowly focused. The licensee has presented no new information to demonstrate that its corrective action was prompt and extensive. Although the licensee noted the degraded flow condition while conducting the test in November 1988, it did not intend to investigate the possibility of a clogged recirculating line orifice until the next planned HPSI system maintenance outage, which was not to have been accomplished for almost 4 months after the discovery of the low flow condition. It was not until late January 1989 that the licensee began to take action to resolve the low flow condition, and then only after NRC inspectors raised the concern of pump operability during the maintenance team inspection. The NRC staff notes that the cause of the low flow condition was not determined and corrected until May 1989, almost 6 months after the discovery of the low flow condition.

The NRC staff disagrees with the licensee's contention that this type of violation did not provide LP&L with the opportunity for prompt identification and reporting. In the licensee's response to the violation, it noted several discussions with NRC regarding the intent of Relief Request 2.1.3. Additionally, LP&L noted in a July 8, 1988, letter to NRR that they were measuring and comparing flow to a flow reference value. The NRC staff believes that the extensive involvement on the part of LP&L in developing revisions to their initial IST program and discussions with NRC staff provided them with numerous opportunities to detect that their HPSI pump surveillance procedure did not

incorporate the requirement to measure, record, and evaluate HPSI pump recirculation flow in accordance with Table IWP-3100-2. The NRC staff does acknowledge that up until the licensee's receipt of the May 20, 1988, letter from NRR, compliance with the Table had not explicitly been delineated as a requirement. It is important to note, however, that the May 20, 1988, NRR letter was explicit in requiring the recording and measuring of flow per Table IWP-3100-2 in order to establish, in part, HPSI pump operability. Moreover, in February 1989, NRR partially granted LP&L's Relief Request 2.1.3, but still required that all parameters of Table IWP-3100-2 (including flow) be measured and recorded in order to determine HPSI pump operability. Accordingly, the staff believes that LP&L had sufficient opportunity to discover and subsequently correct the HPSI pump surveillance procedure inadequacies at least as early as the spring of 1988.

The licensee was also late in reporting the violation of Technical Specification 4.0.5.a in accordance with 10 CFR Part 50.73. The licensee event report that discusses the violation of Technical Specification 4.0.5.a was not issued until May 20, 1989. The NRC staff believes that the licensee had sufficient information to determine the reportability of this event no later than March 9, 1989, when NRC conducted a followup inspection of the B HPSI pump low flow condition. During the Enforcement Conference on May 8, 1989, licensee management indicated that they still had not determined the reportability of this event, even though they acknowledged violating Technical Specification 4.0.5.a.

#### Summary of Licensee's Request for Reclassification of NOV Severity Level

The licensee agrees that a violation did occur, but argues that the violation was not "significant," and therefore should be more appropriately classified as a Severity Level IV violation.

#### NRC Response to Licensee's Request for Reclassification of NOV Severity Level

For reasons that have been previously stated, the NRC staff disagrees with the licensee's position that the violation was not significant. The significant regulatory issue was the failure by the licensee to identify a Technical Specification defined condition of inoperability. The violation is even more significant given that actual reduced HPSI pump recirculation flow was the first indication of a degraded pump condition. Had the licensee promptly evaluated and corrected the reduced flow condition, the B HPSI pump would not have remained in a degraded condition for several months before it was repaired. Accordingly, the NRC staff considers this violation "cause for significant concern" in accordance with the general description of Severity Level III violations in the enforcement policy and believes its significance is commensurate with other examples of Severity Level III violations in the Supplements to the policy. Thus, the NRC staff adheres to its original position that the violation is properly classified.

#### Summary of Licensee's Request for Equal Payment to Nichols State University in Lieu of a Civil Penalty

LP&L requested that should the NRC conclude a civil penalty is warranted in this case, the NRC exercise its authority under section 234(a) of the Atomic



Energy Act, amended, 42 U.S.C. 2282(a) (Act) and mitigate the civil penalty in its entirety and require LP&L to make a payment of an equal amount to Nichols State University.

NRC Evaluation of Licensee's Equal Payment Request

The NRC staff concludes that donations of civil penalty monies to an educational institution is inappropriate. Such a policy could weaken the effectiveness of the civil penalty program, in part, by allowing licensees to receive positive publicity as a result of the poor performance which justified the civil penalty. In addition, granting such a request would leave many questions dealing with the administration of the resulting program unanswered.

Because the decision to deny this request is being made on policy grounds, it need not be determined whether the NRC, in fact, has the legal authority to permit such donations.

NRC Conclusion

On the basis of the foregoing evaluation of LP&L's response to the June 28 Notice of Violation and Proposed Imposition of Civil Penalty, the NRC staff concludes that the violation occurred as stated in the Notice of Violation and Proposed Imposition of Civil Penalty and that mitigation of the proposed civil penalty or reclassification of the violation at Severity Level IV is not warranted. Accordingly, a civil penalty in the amount of \$50,000 should be imposed.

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