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(RDS)

November 26, 1990

Docket No. 50-461
License No. NPF-62
EA 90-108

Illinois Power Company
ATTN: J. S. Perry
Vice President
Clinton Power Station
Mail Code V-275
Post Office Box 678
Clinton, Illinois 61727

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$112,500
(NRC INSPECTION REPORTS 50-461/90005(DRS) AND 50-461/90012(DRP))

This refers to the special safety team inspections at the Clinton Power Station, conducted on March 14 - May 14, 1990, and on May 18 - May 31, 1990, of activities authorized by NRC License No. NPF-62. During these inspections, violations of NPC requirements were identified, and on June 5, 1990, an enforcement conference was held at the Clinton Power Station between you, and other members of your staff, and Dr. C. J. Paperiello, and other members of the NRC staff. Copies of the inspection reports were mailed to you on May 31 and June 5, 1990, and the enforcement conference report was mailed to you on June 11, 1990. A final management meeting, to ensure that all technical issues had been resolved, was held on November 6, 1990.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice), involve three separate issues. Violation I concerns your failure to promptly identify and initiate appropriate corrective action for a potentially significant condition adverse to quality. During performance testing of the shutdown service water (SX) pump room heat exchanger on January 24, 1990, Plant Technical Staff engineers found flow rates significantly lower than expected. Though the flow data was forwarded to the Nuclear Station Engineering Department (NSEd) for trending purposes, the test engineers failed to either initiate a Condition Report or inform the shift supervisor. Consequently, no action was taken to investigate the suspected malfunction until the Supervisor of Plant Testing reviewed the test data on February 15, 1990. As a result, your corrective action was not prompt, and unduly extended operation with the SX system degraded. This violation demonstrates inadequate management attention to ensuring prompt, thorough evaluations of unexpected equipment indications.

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November 26, 1990

Your subsequent investigation found that the shutdown service water and control room heating, ventilation, and air conditioning (HVAC) chilled water flow rates were less than the design value for numerous components. This condition had existed since plant startup in 1987 due to initial design inadequacies (Violation II.A), that were compounded by inadequate pre-operational testing (Violation II.B). While these deficiencies occurred several years ago, they resulted in your having to do extensive engineering calculations, modifications, and flow balancing in order to restore the systems to their design configurations.

Violation III concerns the May 14, 1990 startup with diesel generators (DG) 1A and 1B inoperable due to the unavailability of shutdown service water. The DG heat exchanger SX outlet valves were incorrectly positioned by operators during system restoration work following maintenance. Had the diesels been called upon in a loss of offsite power event, they would have tripped within approximately ten minutes of starting, but would not have been physically damaged, and could have been restarted. Had they been called upon during a loss of coolant accident, coincident with a loss of offsite power, the diesels would have physically failed within approximately thirty minutes of starting, unless the operators responded to the diesel trouble alarm, correctly diagnosed the problem, and locally opened the valves.

The root cause of Violation III appears to be that the management and administrative controls you had established to ensure proper valve position were not clearly or consistently communicated to your operators. To ensure repeatability of the SX system flow balance to the DG heat exchangers, a new methodology for throttling the SX outlet valves had been developed with the valve position specified on a control tag. The first problem that developed was that the tags were not updated after initial placement to reflect the final valve throttle positions once the system balance was completed. Secondly, information on how the SX valves were to be throttled was not communicated to all members of the operations staff. Both the operator who manipulated the valves and the assistant shift supervisor with whom he conferred as to the correct valve positioning method, did not know about the new methodology. This is particularly disturbing because the NRC Resident Inspectors had extensive discussions with plant management concerning the need to ensure that all responsible personnel were informed of these changes because of the need to establish a precise and repeatable valve position, to ensure accurate flow rates were established.

Consequently, you went from cold shutdown (Operational Condition 4) to startup (Operational Condition 2), and remained there for over a day before discovering the closed valves when DG 1A tripped during a routine surveillance test. We were, however, encouraged by the fact that, in this instance, you took prompt and extensive corrective actions.

To emphasize the need for additional management attention to problem identification and resolution, and prompt, more effective corrective actions, I have been authorized after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations, and Research to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$112,500 for the Violations set

forth in the Notice. The violations have each been classified at Severity Level III in accordance with the "General Statement of Policy and Procedure for Enforcement Actions," 10 CFR Part 2, Appendix C (1990) (Enforcement Policy). The base value of a civil penalty for a Severity Level III violation or problem is \$50,000. The escalation and mitigation factors in the Enforcement Policy were considered for each violation as described below.

Violation I is considered a significant failure to identify and correct a degraded condition, and is therefore categorized at Severity Level III. The base civil penalty was escalated by 50% for NRC identification of your corrective action system failures. However, once the system performance problem and corrective action deficiencies were identified, you took extensive corrective actions that included an in-depth evaluation of the SX system design problems as well as providing wide training to station personnel regarding their responsibility for prompt reporting of deficient conditions. Consequently, a 50% mitigation is applied for these actions. No other adjustments were considered appropriate and a \$50,000 civil penalty is assessed for this violation.

The failure to ensure that the shutdown service water and control room HVAC chilled water systems performance (1) met their Final Safety Analysis Report (FSAR) design bases (Violation II.A) and (2) that SX system was adequately tested (Violation II.B), has been categorized in the aggregate as a Severity Level III problem under Supplements I and II of the Enforcement Policy. These violations resulted in system performance being significantly degraded below the design basis described in the FSAR since initial plant startup and extensive analysis was necessary to provide assurance that the systems would serve their intended function. This is of significant concern because the plant was licensed, in part, on the basis of the statements made in the FSAR. A civil penalty is normally proposed for Severity Level III problems. However, because you identified and reported the violations, initiated comprehensive corrective action that included significant system testing and modification, and the violation would not reasonably be expected to have been identified by routine surveillance testing or quality assurance audit program and is not indicative of a current performance concern, we have decided to exercise discretion under Section V.G.3 of the Enforcement Policy and not propose a civil penalty for these violations.

Violation III is considered a significant operational violation and therefore has been categorized at Severity Level III. Though you identified this violation, it was only mitigated by 25% because the DG failure that led to the discovery of the mispositioned SX valves is considered self-identifying. A 50% mitigation factor was applied for your corrective actions which included significant efforts to communicate management expectations regarding operator performance, responsibilities and authorities. A 100% escalation factor was applied for prior notice because specific NRC concerns regarding the need to communicate the new method of setting the SX throttle valves was discussed with senior plant management prior to the event. No further adjustment to the base civil penalty was considered appropriate and a \$62,500 civil penalty is assessed for this violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response,

you should document the specific actions taken and any additional actions you plan to prevent recurrence. Particular emphasis should be placed on your actions to assure that potential design and testing deficiencies similar to those in Violations II.A and B, are not present. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, P. L. 96-511.

Sincerely,

Carl J. Paperello for
A. Bert Davis
Regional Administrator

Enclosures:

- 1. Notice of Violation and Proposed Imposition of Civil Penalties
- 2. Inspection Reports No. 50-461/90005(DRS) and No. 50-461/90012(DRP)

See Attached Distribution

OE (Received via FAX) WTroskoski 11/15/90	D:OE JLieberman 11/15/90	DEDR JSniezek 11/18/90			
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